

TOWARDS A GLOBAL CARBON MARKET
**RISKS OF LINKING THE EU ETS TO
OTHER CARBON MARKETS**

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Executive summary

The number of regions and countries that are putting a price on carbon pollution is vastly increasing. Nearly 40 countries already price carbon or plan to do so, including China that will roll out a national carbon market from 2016 onwards. Linking these different carbon markets is being envisaged by several European policymakers.

For example, the European Commission continues to see the development of an international carbon market as a major way to reduce emissions. Several EU Member States have already mobilized 50 million dollars for the World Bank's Partnership for Market Readiness (PMR), an initiative for preparatory work and capacity building to establish carbon markets in emerging economies. Concretely, the European Commission aims to initial¹ an agreement to link the Swiss and the EU's Emissions Trading Systems in the first half of 2015. This is significant because it would be the first time the EU ETS is linked to a carbon market outside the EU's jurisdiction and would set the precedent for how to link to other carbon markets in the future.

The main benefits of linking are cost-efficiency as a result of increasing the pool of emissions reductions available, which could allow countries to increase their climate ambition. However, if not designed carefully, these lower costs may come at the price of reduced overall emissions abatement, lower domestic investments and co-benefits as well as a loss of public funds.

There are also concerns that linking the EU ETS with foreign trading schemes would allow foreign allowances and credits to enter the EU's carbon market and undermine the EU's decision to achieve at least 40% emissions reductions domestically by 2030 (relative to 1990). The decision to achieve the EU's 2030 climate target wholly through domestic means was announced as part of the EU's 2030 energy and climate policy framework in October 2014 and confirmed in the latest EU submission of its climate pledge towards the Paris climate treaty.

Finally, current rules do not allow the European Parliament to participate in the linking negotiations and do not provide public access to crucial documents.

The ongoing negotiations to link the EU ETS with the Swiss carbon market and the upcoming proposal to revise the EU's carbon market, expected in the third quarter of 2015, provide unique opportunities to address unresolved issues outlined in the policy brief.

Key recommendations include:

- A decision to link the EU ETS with other carbon markets should be accompanied by an increase in the EU's emission reduction target
- The upcoming EU ETS revision must introduce safeguards for any decisions to link the EU ETS with other carbon markets, e.g. an assessment of the fair share of the climate ambition of the respective jurisdiction, the inclusion of aircraft operators, the exclusion of international offsets, the existence of equivalent price and supply management and a robust allowance allocation method
- The upcoming EU ETS revision should introduce public review of linking proposals and rules, including a strengthened role of the European Parliament, improved transparency and public access to relevant documents
- Ongoing negotiations with Switzerland should set a positive precedent and avoid jeopardizing the EU ETS revision

What is linking of carbon markets?

Linking allows companies to purchase and use allowances from another trading system for their compliance obligations. To link carbon markets, compatible registries and requirements for the measurement, reporting and verification (MRV) are needed. Linking will result in a harmonization of the carbon price within the

linked systems. Quebec and California were the first ones to link their carbon markets and held their first joint auction in November 2014. Recently Ontario announced that it will also join the Quebec-California carbon market.

State of play of EU's linking objectives

Several players in the EU, including Member States like the UK and Germany, the European Commission and industrial groups like Dow Chemicals, have highlighted the importance of linking the European carbon market to other carbon markets as the main tool to reduce global emissions and address carbon leakage². Although a linkage between emerging carbon markets and the EU ETS is not expected to happen in the foreseeable future, negotiations to link the EU ETS with Switzerland already started in 2010 when the European Commission requested and received a negotiation mandate from the Council.

While Norway, Iceland and Liechtenstein are already covered by the

EU ETS through their membership of the European Economic Area agreement, linking with Switzerland would be significant because it would be the first formal process to link the EU ETS with a carbon market outside the EU's jurisdiction, setting a precedent for future linking negotiations with other jurisdictions, such as South Korea and ultimately China. The negotiations with Switzerland were temporarily put on hold when Switzerland voted to control and restrict immigration autonomously in February 2014. However, in March 2015 a seventh round of negotiations between the Swiss and EU took place where both sides confirmed their desire to clarify the outstanding issues as soon as possible in order to initial the linking agreement in the first half of 2015³.

Linking carbon markets in the context of the EU's domestic 2030 target

It is unclear how linking other carbon markets to the EU ETS can be done as part of the EU's climate goal to reduce domestic greenhouse gas emissions by at least 40% by 2030 without the use of international credits. Although the Commission highlights⁴ that linking does not affect the domestic nature of the 2030 climate target, linking the EU ETS with another system could effectively allow foreign allowances into the EU's carbon market

and undermine the domestic nature of the target. This goes against the decision by EU leaders to meet the at least 40% climate target solely by domestic climate actions. To ensure that the possible inflow of foreign emission allowances does not cause a reduction in EU's domestic climate action, linking the EU ETS with another carbon market should be coupled with an increase in EU's climate ambition.

Linking procedures in the EU ETS

Current EU rules allow the EU ETS to be linked to any compatible ETS in a country or sub-national region with an absolute cap on its emissions. Linking carbon markets relates to a field in which the EU has exclusive competence ("concluding international agreements"), which means that the European Commission initiates and conducts the linking negotiations acting on the mandate it receives from the Council. Once an agreement has been achieved, it is signed by the Commission and the Council. The European Parliament is consulted on the final agreement and must

give its approval, but has no role during the negotiation process as is not allowed to access the negotiation mandate or any other relevant documents.

A proposal to revise the EU's carbon market, expected in the third quarter of 2015, could potentially change these EU rules for ETS linking by giving the European Parliament a say in when and how to link the EU ETS with other emissions trading systems.

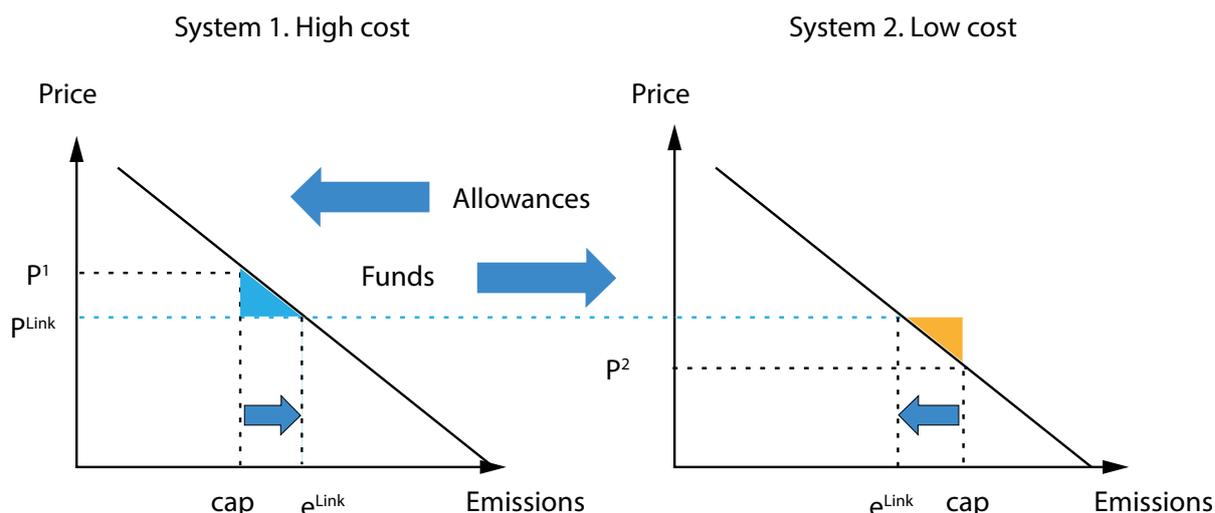
Risks of linking carbon markets

Certain stakeholders suggest that linkage could lower the overall costs of reducing carbon emissions, which allows countries to adopt more ambitious climate policies. However, lower costs for EU companies will only be achieved by linking the EU ETS to a lower-cost carbon market with a lower ambition level which would cause a raise of the carbon price in the low-cost system while the carbon price in the EU ETS is lowered. This could come at a price in the form of reduced emissions abatement, lower domestic investments and co-benefits as well as a loss of public funds. On the other hand, if there is a similar carbon

price in the two systems before linking takes place, the economic benefits do not materialize since linking will not make achieving the targets much cheaper. Similarly, linking the EU ETS with a higher cost system, would increase the costs for EU companies but would also see higher abatement and co-benefits.

Linking carbon markets can also result in uncertainty for price or supply controls, lack of control over the types of carbon offsets used in the linked jurisdiction and can cause perverse incentives.

The figure below shows how linking a high ambition system (system 1) to a low ambition system (system 2) will result in increased emissions and a lower carbon price in the high ambition system and a transfer of funds from the higher to the lower ambition system.



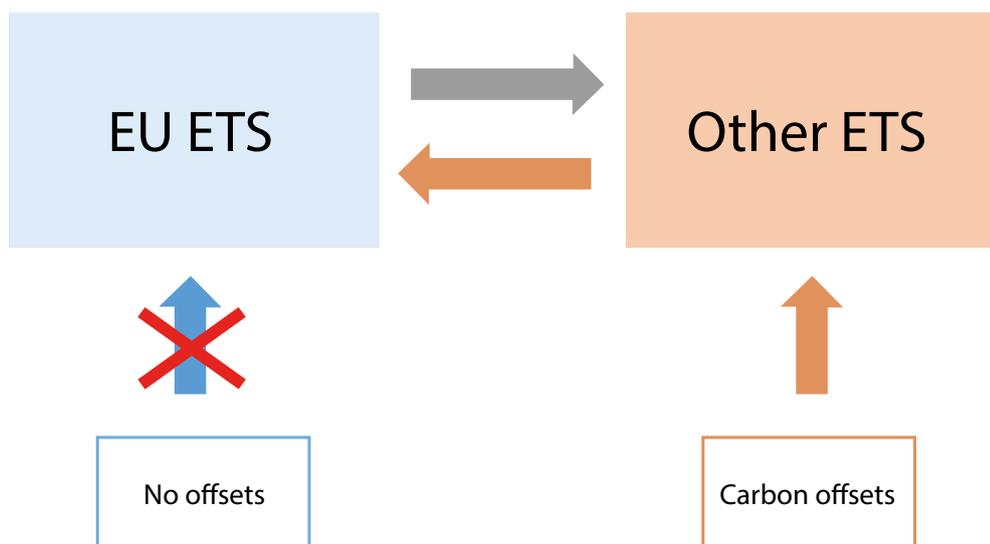
(Zetterberg, 2012)

Linking carbon markets is still very much untested and faces several challenges:

- **Reduced overall emissions abatement** if systems have over-allocated allowances that would otherwise be retired or unused: The existence of surplus allowances not only suppresses the carbon price but can also cause less overall abatement: If one of the systems is over-allocated – such as the EU ETS – the system with the shortage of emission allowances is able to use the surplus allowances from the over-allocated system. This could result in the situation where companies in the previously sufficiently capped system will be able to emit more compared to the situation without linking.
- **Less domestic investment and co-benefits** in the higher price jurisdiction: Linking the EU ETS to a lower price system could incentivize European companies to purchase allowances from the system where emission reductions are cheaper, rather than investing this money in technologies to reduce their own emissions. Since it would be cheaper to pay for emission reductions abroad, linking could result in increased emissions in Europe and lower co-benefits associated with domestic mitigation like a reduction of local air-pollutants.
- **Loss of public funds** in the higher price jurisdiction: After linking the EU ETS to a lower-price carbon market, the carbon price in the EU ETS would be lowered. This means that EU governments are faced with a loss of public funds since the revenues from auctioning their allowances will be lower.
- **Uncertainty for price or supply controls:** If one of the systems has introduced a price cap, this cap would provide the upper

limit on the price in both of the linked systems. Even if in the EU ETS such a price cap has not been introduced. Equally, the supply control in the EU ETS (the market stability reserve) can only function effectively if it also applies to the carbon markets that are linked to the EU ETS.

- **No control over carbon offsets:** Offsets available in one carbon market would also impact the linked carbon market even if that system restricts its use. This is because the ETS that allows for the use of carbon offsets frees up domestic allowances that could be sold to the linked ETS. In that case it would be impossible for the EU ETS to know the origin of the allowances and the overall linked system would therefore be using international offsets. In the EU ETS registry for example, offset credits are exchanged into allowances and therefore offsets and allowances are not distinguishable. See box below



- **Perverse incentives:** The prospect of higher revenues may cause countries to relax their cap to sell more allowances to the linked system which will weaken the overall climate ambition.

Lack of public participation and transparency

There is a lack of transparency about ongoing negotiations to link the EU and the Swiss ETS. For example, there is no public access to the negotiation mandate or other relevant documents, and little, if any, information on the progress of the negotiations. The only information on the linking discussions made publicly available are provided by the Swiss government that publishes a press release after each negotiation round.

Although the impact of a potential link to the Swiss ETS is relatively small, future talks to link the EU ETS with for example the South-Korean or the Chinese carbon market could have far reaching implications for EU's climate policies. The impact that

linking could have on the EU's environmental standards show how important it is to allow for public participation e.g. in the form of a public consultation, to increase the stakeholder involvement and to release all relevant information on the linking negotiations. However, current EU rules do not provide for this.

Also the European Parliament has no say during the linking negotiations and cannot gain access to crucial documents including the negotiation mandate. This is especially relevant because regulatory interventions to change EU's climate standards are likely to become more difficult to achieve once jurisdictions outside the EU have a stake in the EU's climate standards.

State of play between EU and Swiss linking negotiations

The EU and Switzerland have been negotiating on linking their carbon markets since 2010. At the seventh round of negotiations in March 2015, both sides confirmed their wish to clarify the outstanding issues as soon as possible in order to initial the linking agreement in the first half of 2015⁶. This would be the first time the EU ETS would be linked with a third country's carbon market.

One of the remaining open issues in the EU-Swiss linking discussions is how to deal with emissions from aviation, since Switzerland has been reluctant to include this sector in its carbon market. This stands in contrast with the EU approach, where in principle emissions from all flights from, to and within the European Economic Area (EEA) are included in the EU ETS. Other outstanding issues relate to registry and auctioning.

The Swiss emissions trading system started in 2008 with a 5-year voluntary phase. For the second commitment period 2013-2020, changes to the Swiss ETS have been introduced with the aim to increase compatibility with the EU ETS. For example, Switzerland's 2020 target is the same pledge as the EU: to reduce GHG emissions by 20% compared to 1990 levels.

One difference between the EU and the Swiss climate policies is the level of ambition for the year 2030, since Switzerland has announced to reduce its emissions by 50% compared to 1990 levels, of which at least 30% must be achieved by Switzerland itself. The remaining up to 20% will be attained through purchasing international offsets. This is lower than the EU's 2030 climate target of at least 40% domestic emission reductions, for which the use of international offsets is excluded.



It is yet unclear how the effort of the Swiss 2030 target will be distributed amongst the Swiss sectors and which sectors will be able to use offsets. Therefore it is impossible to say if the Swiss ETS will face the same level of stringency as the EU ETS after 2020. If Switzerland decides to allow the use of international offset credits within its carbon market after 2020, these offset credits could enter the EU ETS through the backdoor, even though the EU has explicitly excluded international offsets from the EU's 2030 40% target.

For Swiss policymakers on the other hand, the surplus of more than two billion emission allowances in the EU ETS could be problematic, since this surplus could jeopardize the level of abatement in the overall system.

Prospects for linking the EU ETS to other carbon markets

In summary, the following three design features are crucial for linking carbon markets based on the risks identified earlier:

- **The Stringency of the target** because linking the EU ETS to a lower-cost system could lead to reduced overall emissions abatement, less domestic investments and co-benefits and loss of public funds in the EU.
- **The use of international offsets or problematic domestic offsets**, because after linking these offsets would enter the EU ETS through the backdoor.

- **The type of price or supply controls**, since after linking these price controls would also apply to the EU ETS even though they were not introduced in the EU. Meanwhile the EU's supply control (the market stability reserve) needs to apply to all linked systems.

Based on the compatibility of these core design features, the prospect of linking the EU ETS to other carbon markets is not promising. The below table compares the key design features of the EU ETS with seven existing carbon markets in other jurisdictions:

| | Stringency of target compatible | Use of offsets | Price/supply controls | Compatibility with EU ETS? |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| EU ETS | CO2 reduction compared to 1990 is 20 % by 2020 (LRF 1.74%) and 40% by 2030 (LRF 2.2%). | No use of international offsets after 2020. | Supply control: market stability reserve (MSR). No price controls. | |
| Swiss ETS | Same 2020 target as the EU (LRF 1.74%). Lower overall domestic 2030 target (30%). | Swiss 2030 target allows for up to 20% international offsets, unclear if offsets are allowed in Swiss ETS post-2020. | No price or supply controls. | Unclear yet; depends on post-2020 stringency of Swiss ETS + use of offset, and the effect on EU's supply control (MSR). |
| Quebec-California ETS | California has less stringent target of stabilizing 1990 emissions by 2020, Quebec has same 2020 target as EU. | California allows offsets from forest sinks. | There is an auction floor price and soft price ceiling. | No; California allows forestry offsets and there are price controls. |
| Chinese ETS pilots | China has a relative target of 40-45% CO2 intensity reduction by 2020. | No, forestry offsets allowed in certain pilots. | All pilots have price stabilization measures. | No; Chinese pilots have no absolute caps, allow forestry offsets and have price controls. |
| South Korea ETS | South Korea has a relative target of 30% reduction compared to BAU by 2020. | CCS offsets and international offsets (post- 2020) are allowed | Government can intervene in market for price stabilization. | No; South-Korea has lower ambition, allows international offsets and has price controls. |
| New Zealand ETS | There is no ETS cap, land use sector is included, only 1 credit needed for every 2 tonnes of CO2. | There is unlimited access to international offsets. | There is a fixed price option (price ceiling). | No; New-Zealand has no cap, allows unlimited international offsets, and has a price ceiling. |
| Kazakhstan ETS | Hardly any emission reductions required, no clear price signal or trade, problems with verification of emissions data, unlimited amount of domestic offsets allowed. | | | No; Kazakhstan has lower ambition, no clear price signal, little trades. |
| US RGGI | Covers power sector only, 2.5% annual reduction up to 2020, automatic removal surplus allowances. | Offsets from afforestation and agriculture are allowed. | There is an auction floor price and implicit price ceiling. | No; US RGGI allows forestry offsets and has price controls. |

Conclusions and Recommendations

The difficulties for developing rules for the transfer of carbon credits at the international level has already resulted in first steps towards a bottom-up approach to linking individual carbon markets via political bilateral agreements. Proponents of such an approach have so far not resolved the many risks and barriers that are amongst the reasons for the gridlock in developing a global carbon market under the UN's climate change convention umbrella.

Ongoing negotiations to link the EU's and the Swiss carbon market might have few implications because of the relatively small size of Switzerland. However, the precedent created by such a move is likely to have far reaching implications and left unaddressed, can cause reduced overall emissions abatement, lower domestic investments and co-benefits as well as a loss of public funds while making it more difficult to uphold the democratic control over domestic climate policies.

To address the risks outlined in this policy brief, the following recommendations are made:

- **A decision to link the EU ETS with other carbon markets should be accompanied by an increase in the EU's emission reduction target**

Linking the EU ETS to another carbon market automatically allows for an inflow of foreign emission allowances into the EU ETS which dilutes the domestic nature of the EU's at least 40% emission reduction target. Given that the main objective of linking carbon markets is to reduce costs for European companies, such a higher target is therefore possible at no additional cost.

- **The upcoming EU ETS revision must introduce public review of linking proposals and rules**

To date, European policymakers and the general public have been kept in the dark about the linking negotiations between the EU and Switzerland. Given the far reaching implications on the integrity of climate policy in the respective jurisdictions, the upcoming proposal to revise the EU ETS should strengthen the democratic process surrounding the linking negotiations. In particular it should:

- Introduce the ordinary legislative procedure for decisions to link the EU ETS with other carbon markets
- Improve transparency about negotiation meetings and provide public access to the linking negotiation mandate and other relevant documents
- Improve public participation, for example by holding a public consultation before the linking negotiations start and by organizing stakeholder meetings during the negotiations rounds, including a strengthened role of the European Parliament

- **The upcoming EU ETS revision must introduce principles and safeguards for any decisions to link the EU ETS with other carbon markets**

Linking the EU ETS to carbon markets in foreign jurisdictions can have profound implications for Europe's climate standards. To ensure that ETS linking will not compromise the integrity of EU's climate ambition, the upcoming proposal to revise the EU ETS should therefore include the following principles and criteria for potential foreign carbon markets that intend to link to the EU ETS:

- Emission reduction targets should correspond to their fair share of the global emissions trajectory that is in line with limiting warming to no more than 2°C
- No use of international offsets or domestic offsets with questionable benefits (e.g. temporary removal credits from forestry, carbon capture and storage offsets)
- No oversupply of emission allowances
- Existence of equivalent price and supply management to the EU's market stability reserve and a robust allowance allocation method

- **Ongoing negotiations with Switzerland must set a positive precedent and avoid jeopardizing the EU ETS revision**

While the upcoming ETS revision proposal is only expected in summer 2015, the European Commission aims to finalize the ongoing negotiations with Switzerland in the first half of 2015. The upcoming decision to link the EU and Swiss carbon markets therefore provides a unique opportunity to apply the safeguards and criteria outlined above and should in particular result in:

- A decision to increase the EU's 2030 climate reduction target beyond 40%
- A decision by Switzerland to include aircraft operators and exclude the use of international offsets post-2020 in its ETS

1. *Initialling happens when the negotiators agree on the wording. They initial each page of the agreement, thus concluding the negotiation stage. The agreement is now available in written form, but it is still confidential and not yet binding. [See here](#)*
2. http://europa.eu/rapid/press-release_MEMO-14-40_en.htm
3. <http://www.bafu.admin.ch/emissionshandel/10923/10926/15178/index.html?lang=en>
4. http://europa.eu/rapid/press-release_MEMO-14-40_en.htm
5. <http://www.bafu.admin.ch/emissionshandel/10923/10926/15178/index.html?lang=en>
6. <http://www.admin.ch/aktuell/00089/index.html?lang=en&msg-id=56394>



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