

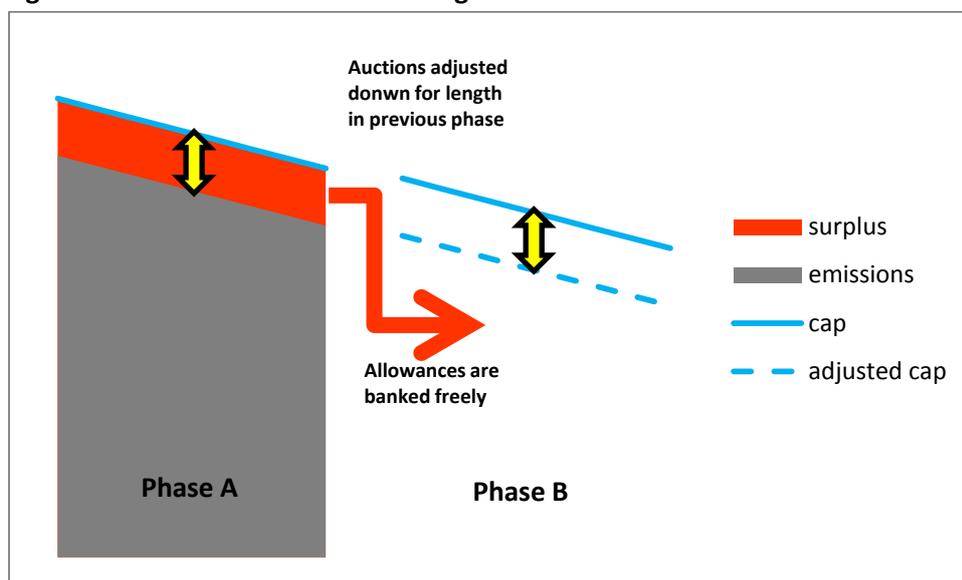
Notes for CEPS event on supply side flexibility – Damien Morris, Sandbag

At least since our 2010 ETS report, *Cap or Trap?*, we have been advocating that some form of responsive supply adjustment mechanism be introduced to allow the ETS to self-correct without undue political intervention if it faces similar supply-demand imbalances as have been seen in recent years (whether these owe to economic shocks, or to redundancies created by overlap with arising climate policies such as the Energy Efficiency Directive). As of our July 2012 report, *Losing the Lead*, we were more explicit in describing how such a mechanism might be designed¹. We provided two options:

Heat exchanger. Stop contagion of “hot air” surpluses.

The first, which we nicknamed a “heat exchanger mechanism” is fairly straightforward. In this model, the quantity of allowances auctioned in each successive carbon budget is adjusted downward to reflect any gap between verified emissions and the cap in the preceding one.

Figure 1: Illustration of “Heat exchanger” mechanism



This protects future carbon budgets from being contaminated by “hot air” from previous ones, yet still allows companies to safely bank their allowances between phases. Hence the name. This cue for this idea was a one-off intervention proposed by the Commission in a leaked draft of the 2050 Low Carbon Roadmap (later deleted).²

The main advantage of this design is simplicity. It keeps the supply of domestic allowances at the level that policymakers set them. Note that it does not seek to adjust the supply of allowances because installations happened to offset some of their emissions.

There are downsides to this simplicity, though:

- Eight year trading phases leave this approach with long intervals between adjustments, allowing surpluses to build up and weaken incentives.
- The mechanism adjusts for spare domestic allowances but disregards how and why they arose. It therefore fails to discriminate between exogenous emissions reductions caused by

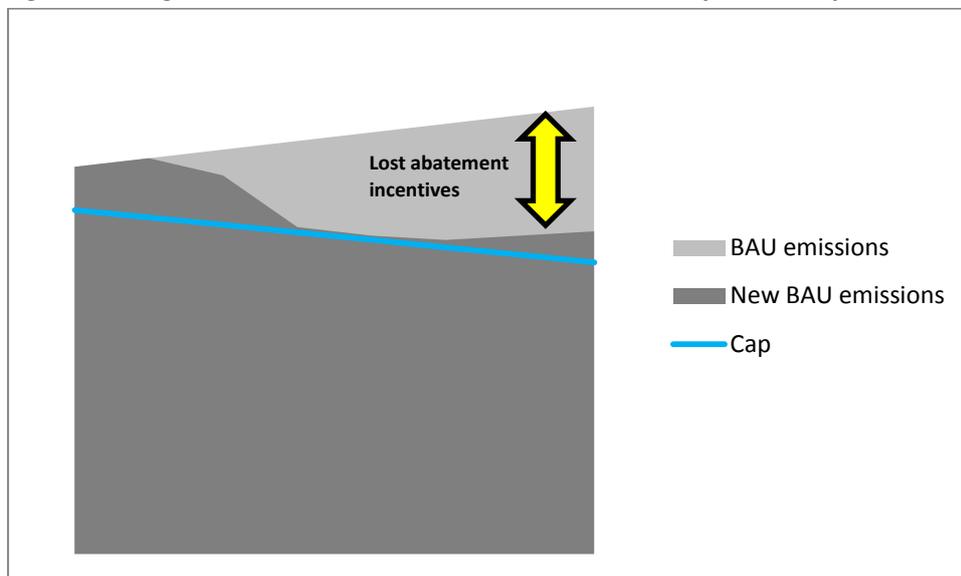
¹ See p.37-38 www.sandbag.org.uk/site_media/pdfs/reports/Losing_the_lead_modified_3.8.2012.pdf

² A copy of this leaked draft is published on the Sandbag website http://www.sandbag.org.uk/site_media/uploads/Leaked_2050_roadmap_draft.pdf (see page 8-9)

recession or overlapping policy, and endogenous reductions driven by the ETS itself (e.g. fuel switching induced by the carbon price)

- Thirdly, such a mechanism fails to correct for any exogenous emissions reductions which did not bring emissions below the cap, but nonetheless reduced the incentives within the scheme. **We note that surpluses are just the tip of the iceberg when it comes to reduced abatement incentives in the ETS.**

Figure 2: Exogenous emission reductions don't necessarily leave surpluses



Establishing a supply-correction reserve

To address some of these pitfalls we also suggested an alternative mechanism that was slightly more complex.

The second mechanism we proposed was that a special reserve be established which holds back a set percentage of allowances from auction at the start of each year. This reserve would be returned to the market after 2-3 years on a rolling basis, but the volume returned would be adjusted to reflect any emissions reductions that had been driven by exogenous forces, **whether or not they resulted in a surplus.**

This is modelled on the Voluntary Renewable Energy Reserve that was designed for the Californian scheme³, but would have a larger remit and scale, perhaps accounting for as much as 10% of the cap in any given year. It could also embrace the function of the policy that inspired it and correct the supply of allowances for voluntary emissions reductions delivered by ethical consumers in ETS sectors such as electricity, whose efforts are not captured by the scheme at present.

We note, however, that much of this design could be fulfilled without a special reserve, but could apply a direct adjustment to the cap, with a few year's delay (as CMIA proposes elsewhere). The reserve model puts a limit on the quantity of allowances might be removed from the scheme, though, and this might make it more attractive to some stakeholders.

The main downside of this approach is its complexity: a counterfactual calculation of how much emission reductions have been delivered by factors outside of the EU ETS would need to be

³ See Sandbag's briefing on California's strategic reserve policies for further details: http://www.sandbag.org.uk/site_media/pdfs/reports/California_set_aside_briefing.pdf

performed on an annual basis. **We note that this process would be greatly assisted if official BAU emissions forecasts for the traded sector were published for each trading period at the time the cap was set, and updated annually.** The administrative burden could also be softened by extending the intervals between adjustments.

Key issues to consider when designing a mechanism:

- Beware of correcting for surpluses alone.
 - Surpluses are an incomplete picture of the forces depressing incentives within the scheme. Exogenous emissions reductions weaken incentives but do not always leave surpluses as a trail.
 - Surpluses partly consist of emissions reductions generated from the scheme working in good order which it is not appropriate to correct for.
 - Surpluses generated by offsets are not environmentally problematic in themselves, but only by virtue of any additionality concerns and such like.

- Some might object to our mechanisms on the basis that that the ambition of the cap should be left for policymakers to set in consideration of economy-wide ambitions, acceptable costs and progress in the international climate negotiations. But we note that Europe's QELROs and caps do not in any way represent its share of a 2 degree carbon space, but only the best political compromise we have so far reached with other member states in moving towards an effective and sufficient climate agreement.

Until such a time as Europe's decarbonisation trajectory is fully compatible with its share of a 2 degree carbon budget (however it chooses to calculate that) or until such a time as the global emissions pathway is set to avoid dangerous climate change, we therefore feel it is appropriate that automated mechanisms in the ETS to increase ambition when exogenous factors leave the mechanism idling.