Managing Allowance Supply

By Quentin Foster
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I would like to thank the subcommittee for their thoughtful work on this issue. On the whole I believe the joint subcommittee report provides a careful look at what has become a contentious issue around the supply of cap-and-trade allowances. I write separately here to make a few higher level points that are absent from the joint report, noting that the cap-and-trade program is functioning as intended, although there could be an important opportunity to increase ambition.

Part 1: Comments on Joint Subcommittee Report

1. **The Cap and Trade Program was designed to incentivize early reductions through banking and achieving the 2020 target four years early is a clear demonstration of success that is benefiting the atmosphere right now.**

   From the tone and framing of the subcommittee report it could be unclear to readers whether banking is a positive of negative aspect of the program or what the pros and cons are. I would like to note that the cap and trade program was intentionally designed to include banking which provides a number of benefits. From an environmental perspective, the most important is encouraging earlier emissions reductions. Banking means that if regulated entities can find cost-effective reductions earlier than required by the scarcity of allowances, they can bank allowances for a later date. This dynamic is clear in California's cap and trade program where the state has met its 2020 target four years early. This means at least a delay in emitting GHGs into the atmosphere where they will have a warming effect. Banking can also have benefits for price stability. In short, it is important to note that the cap-and-trade program is working as intended. Meeting the 2020 target four years early is a clear demonstration of the success of California's suite of climate policies.

2. **Banking can create opportunities for increased ambition.**

   The fact that banking can provide benefits to the program does not mean that a larger bank of allowances is necessarily better. As the subcommittee report notes there are no "textbook rules or standard methodologies for determining the ideal size of an allowance bank." I agree. Under the right circumstances, EDF, the organization I currently work for, has supported decreasing the size of the allowance bank by making cap adjustments. A large bank of allowances and allowance prices consistently close to the price floor can indicate an opportunity to increase the ambition of a program by decreasing the overall supply of allowances. This type of cap adjustment can occur as a onetime cap adjustment or through an automatic mechanism that removes allowances either temporarily or permanently from circulation. To some extent this is already happening in California. As CARB has noted in Appendix D of the current regulatory package, at least 39 million allowances will be moved to the price containment reserves due to the new rule that is triggered if allowances go unsold for a period of 24 months. There has also been advocacy for a minimum permanent cap adjustment that is equivalent to the 52.4 million allowances that are the difference between cap setting methodologies CARB considered during the regulatory development process. CARB has instead proposed to move these allowances into the price containment reserves as well. Again since there is no clear best practice, these different approaches represent a difference in calculation as to the best way to balance policy objectives.

3. **In considering whether it is appropriate to make a cap adjustment, it is worthwhile to consider emissions impact, price impact, and adequate notice to the market.**

   In considering whether a cap adjustment to increase ambition is appropriate there are two sets of key questions to consider: First, what will the impact of reducing the supply of allowances actually be on overall emissions (and prices)? And second will the method of cap adjustment provide adequate notice to the market or unduly penalize market participants for over complying?

   On the first point, the theory of cap and trade means it should be relatively simple to reduce emissions by decreasing the supply of allowances. However, it gets more complicated in practice. As Borenstein et al. have pointed out in a 2017 working paper, there could be a high likelihood that prices are either at the floor or the ceiling meaning there are few cost-effective abatement opportunities between the floor and the ceiling price.[i] Some comments on the regulatory proposal have used this result to suggest that reducing the overall supply of allowances may not have any real emissions impact on the program. However, this argument ignores two key points. First, that there is insufficient real data to test this modeling result and thus it could be significantly underestimating the abatement opportunities between the floor and the ceiling. Second, that there is a requirement to purchase reductions on a ton-for-ton basis if instruments are sold at the ceiling. While this might not result in reductions in California, it will result in reductions to the atmosphere that will reduce the warming impacts of pollution. Therefore, it seems clear that there is an emission benefit to reducing the supply of allowances; the question is balancing that benefit with the potential to increase allowance prices.

   The second question regarding notice and penalization is also somewhat subjective. There are two major opportunities for making cap or supply adjustments that are worth considering. First, when initial budgets are being set as they are now for the 2021-2030 period. The market has an expectation about the end point in 2030 that will be used as a fixed goal. But there could be multiple appropriate methods for determining the trajectory and thus annual budgets between two fixed targets in 2020 and 2030 that the agency could freely choose between. The second way to adjust budgets would be to set up an automatic process that is outlined in the regulation for tightening budgets. California has this with the "24 month rule" but it represents a temporary removal from circulation vs. a permanent removal which would guarantee an emission reduction via the ton-for-ton requirement at the ceiling. RGGI has also adopted an Emissions Containment Reserve starting in 2021 which will automatically tighten the cap if prices are below a set trigger price that rises over time.[ii]

4. **An important factor in California's progress towards achieving climate goals as the state approaches 2030, will be whether and how soon the state can codify ambitious, midcentury goals.**

   Setting binding, statutory goals and extending the cap-and-trade program beyond 2030 could significantly influence the behavior of the market and market participants as the state approaches 2030. Setting these ambitious goals could keep the pressure on market participants to continue banking and to achieve relatively cost-effective reductions as soon as possible. It could also send a stronger signal to the larger economy that could spur adoption and innovation which could bring more reduction opportunities within that cost-effective range. As described above, there could be an important opportunity to increase ambition through cap adjustments at strategic points. Setting a long-term target that will drive necessary reductions is another important way to keep California on the reduction trajectory that science demands.

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[i] 2017 working paper
[ii] The Regional Greenhouse Gas Initiative