The California cap-and trade-program is already the most rigorous and best-designed allowance market in the world. Its purpose is to reduce greenhouse gas emissions that contribute to climate change. But now the program requires adjustments for political and legal reasons. These adjustments will be a vitally important legislative decision – for the state and the world.

An important new proposal on the stage is SB 775 (Senators Wieckowski and de Leon). This bill would preserve the most basic architecture of the program by maintaining an economy wide carbon market and various complementary policies, but it would make several important changes. Inevitably, one issue that will attract major attention will be the use of revenue raised in the auction of tradable emissions allowances in the carbon market. However, three other fundamental revisions that may get lost in the headlines are nonetheless crucial to the success of the market: banking, offsets, and the border adjustment.

Banking

The new legislative proposal would disallow the banking of emissions allowances that enables firms to save allowances from one year and use them in a later year. The banking feature introduces inter-annual flexibility that reduces compliance costs by enabling a firm to make an investment before it is required for program compliance if it is timely for its own planning, and to benefit by using the saved emissions allowances in later years. Sometimes banking in other programs has been criticized because the bank has grown to a substantial size, but that is an indication of fundamentally too many allowances and too little ambition in the program and not a problem caused by firms that reduce emissions through early action. Every successful program has enabled emissions banking; and indeed the exception proves the rule. The RECLAIM program in southern California did not allow emissions banking in 2000-2001, and as a result, firms had no incentive to install pollution controls before they were necessary. Consequently, "just in time emissions reduction" behavior coincided with a low hydro year and the restructuring of California's electricity market to exacerbate the state's electricity crisis. In general, the absence of banking can be expected to amplify price volatility, for example as hydroelectricity generation varies year to year. If prices spike in any given year and hit the price ceiling, then under SB 775 additional emissions allowances in excess of the emissions cap would enter the program. This is in contrast to the program currently, wherein such allowances would come from under the cap from a different year.

Banking has been a useful way to manage costs and prevent such price spikes from occurring. Further, firms that hold an allowance bank have a stake in the longevity of the

program, which is politically valuable.

One motivation to end banking and to sever a connection between the market in 2020 and 2021 is the anticipation that allowance prices will rise when greater stringency is introduced in 2021. With banking and a connection in place between 2020 and 2021, one would expect emissions allowance prices to rise now because allowances obtained now could be used after 2021. These allowances would result from additional action to achieve emissions reductions sooner than required, which is unequivocally a good thing! But a price increase in the near term would take place before new uses of revenue have taken effect, including sending revenue dividends directly back to households that could soften the impact of the price change, as SB 775 would start operating in 2021. However, to announce that banked allowances will have no value after 2020 would have an opposite, deleterious effect. It would drive down allowance prices right now and remove the incentive for additional emission reductions in the near term. It also would undermine the credibility of regulatory programs in general that attempt to use economic incentives to achieve environmental goals.

The concern reflected in the language of SB 775 can be fixed without eliminating banking or severing the new program from the old one. A smart approach would be to discount the value of allowances carried over (banked) from 2020 into 2021, which is similar to the approach attempted in the Clean Air Interstate Rule (CAIR) at the federal level. (The approach in CAIR was not upheld in court for reasons that are unrelated to the California context.) The final planning of a smooth transition between 2020 and 2021 might be best left to the Air Resources Board, but in any event, allowance banking should be part of that transition if the program is to continue to perform well in the near term and through the next decade.

Offsets

A second design change is the elimination of offsets, which enable firms to purchase allowances resulting from emissions reduction measures achieved outside the market. In principle, this is a good idea because all emissions contribute equally to climate change and if cheaper emission reductions are available outside the market then they should be harvested. Also, these offsets sometimes have ancillary ecological benefits and bring otherwise unregulated sectors such as forests and agriculture into the domain of a carbon constrained economy. However, offsets are controversial because it is difficult to ensure that the emissions reductions are additional, that is, that they reflect behavior or investment that would not have happened anyway. And, with growing awareness of the associated air quality impacts of fossil fuel use especially in low-income communities, offsets are often

described as providing get-out-of-jail cards for regulated firms that may erode the integrity of the cap-and-trade program and delay overall improvements in our environment.

This is not the place to contest the legitimacy of offsets, but their availability provides a form of cost management that builds important political coalitions and has at least some positive environment benefit inside the carbon market and beyond. One alternative that could maintain these environmental benefits, if offsets are deeply divisive in the program design, might be to direct a small revenue stream from the allowance auction to purchase emissions reductions outside the carbon market. The Air Resources Board could evaluate offset projects ex post to ensure that reductions actually have been achieved, and after verification they could constitute additional allowances that enter the program perhaps to populate a cost containment reserve and enter the market if costs rise.

Border Adjustments to Address Leakage

A third design change is the move toward a carbon-related border fee affecting many imports and exports to the state. If this sounds like the buried lead in this story, it might be.

California faces the profound challenge of promoting climate policy ahead of other jurisdictions, which opens the possibility the carbon intensive activities in other jurisdictions will have an unfair economic advantage that erodes California's climate efforts and its economy. Heretofore, the state has given a limited number of emissions allowances for free as an incentive to keep production in the state to firms that are exposed to competition from abroad. However, this is criticized because it feels like another get-out-of-jail card. In fact, the program allocates less than 15 percent of allowances in this way and that share is decreasing.

In contrast, a border adjustment would assess the carbon content of imported goods and require the surrender of emissions allowances, while rebating some allowances to exporters in order to preserve their competitiveness. Economists have pointed to conceptual advantages of this approach, but the practical and legal challenges are daunting. Furthermore, these adjustments would affect the overall emissions outcome in the state, complicating the efforts to achieve the emissions target. SB 775 stipulates that free allocation would continue if the border adjustment were not successfully implemented. A better approach might be to keep the current approach in place, while directing the Air Resources Board to begin a research program to develop a border adjustment mechanism that could be reviewed and potentially implemented in the future.

International Implications

A major accomplishment of California's efforts, recognized on the international stage, is the linking with Quebec and probable linkage next year with Ontario. As built, SB 775 would most likely decouple these programs, providing a body blow to international linkage in climate policy. The increased stringency of SB 775 would likely not precipitate this; California's current and prospective partners are entertaining similar future ambitions. Rather, the features of SB 775 that are likely to make linking impossible are the exclusion of banking and offsets and the introduction of border adjustments. These features are not fundamental to the stringency goal of SB 775, and as indicated, they could make achieving that goal more difficult. Hence, they should be held up for thorough discussion and analysis and potential revision before a vote by the legislature this summer.

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This is part of a series, with links compiled at The Future of California's Greenhouse Gas Cap and Trade Program After 2020.