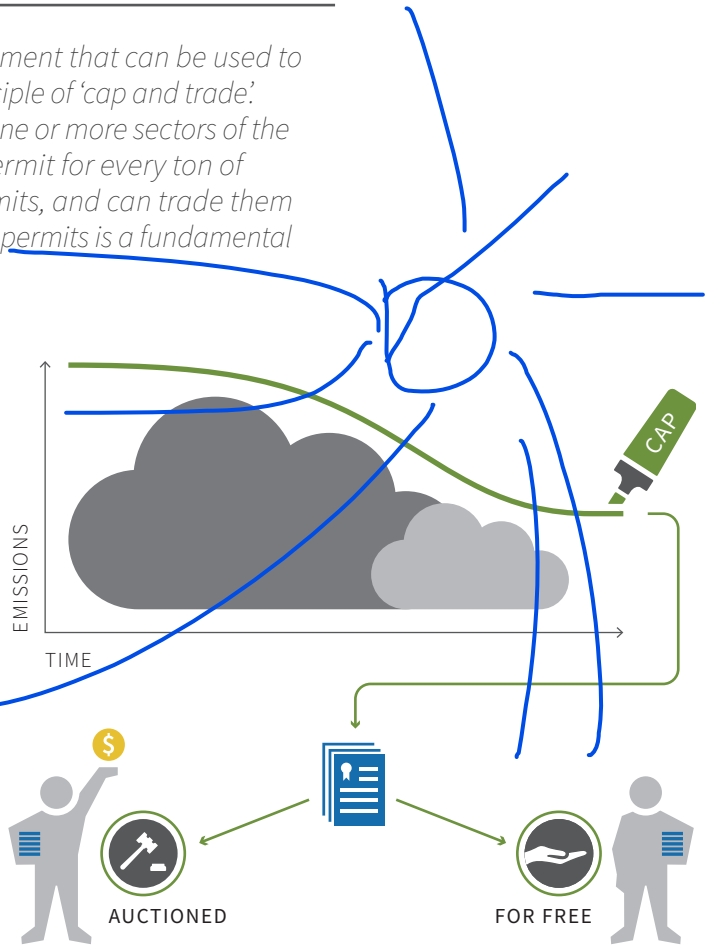
International Carbon Action Partnership
ETS BRIEF #6 December 2019

Allocation: How Emissions Permits Are Distributed

An emissions trading system (ETS) is a market-based instrument that can be used to reduce greenhouse gas (GHG) emissions. It works on the principle of 'cap and trade.' The government imposes a limit (cap) on total emissions in one or more sectors of the economy. Companies in these sectors need to hold one permit for every ton of emissions they release. They may either receive or buy permits, and can trade them with other companies. How governments decide to distribute permits is a fundamental design element of an ETS.

WHY ALLOCATION MATTERS

The overall environmental target of an ETS is determined by the number of permits created (the emissions cap). How permits are allocated to covered entities in an ETS (generally companies or individual installations) determines how the burden of meeting the target is shared across the economy. There are two basic approaches to allocating permits. They may be granted for free or sold at auction. As emissions permits have value, distributing them tends to be a contentious issue.



THE PROS AND CONS OF AUCTIONING AND FREE ALLOCATION

Auctioning permits is considered a straightforward and efficient way to get permits to those who value them most. Furthermore, it generates revenue, rewards early action, and promotes an active carbon market by revealing a carbon price and encouraging trading (for more on auctioning and ETS revenue, see ICAP ETS Brief #5).

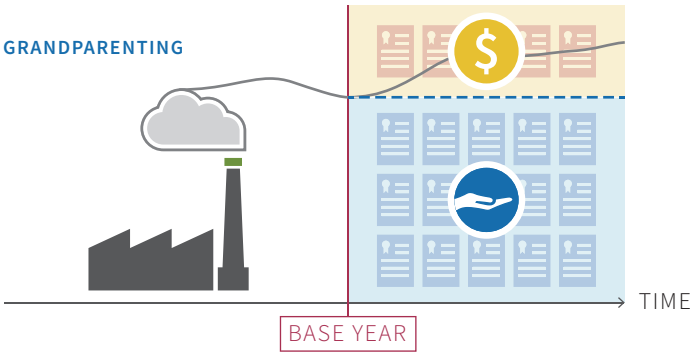
However, free allocation may also be warranted, especially at the beginning of an ETS. Allocating allowances for free can compensate entities for their existing carbon intensive infrastructure and processes, which may smooth the transition into an ETS. Free allocation might also be used to protect companies from the potential loss of competitiveness and the risk of carbon leakage. In theory, if companies compete in markets outside of the ETS, there is a risk that production and investment could shift to areas with laxer climate regulations, which would harm the local economy without reducing emissions. Free allocation can compensate these vulnerable sectors for their carbon costs, allowing them to continue to be competitive.

Even when entities are allocated permits for free, they still have an incentive to invest in low-carbon technology. If they reduce their emissions they can sell the extra permits, whereas if they increase their emissions they will face extra costs. The strength of this incentive is determined by the method of free allocation.

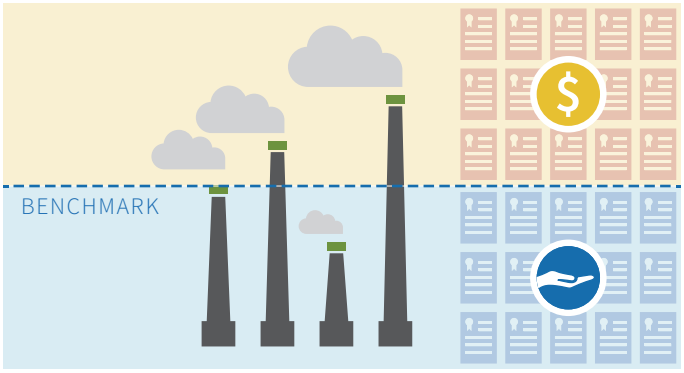
DIFFERENT METHODS OF FREE ALLOCATION

Grandparenting – companies receive free allowances based on their historical emissions from a specified period. Grandparenting has the advantage of being relatively simple with moderate data requirements. However, it may reduce the need to trade in early years and can penalize companies that invest in emission reductions early on, as these reductions may effectively lower their 'historical emissions baseline' and cause them to receive fewer permits.

GRANDPARENTING



BENCHMARKING



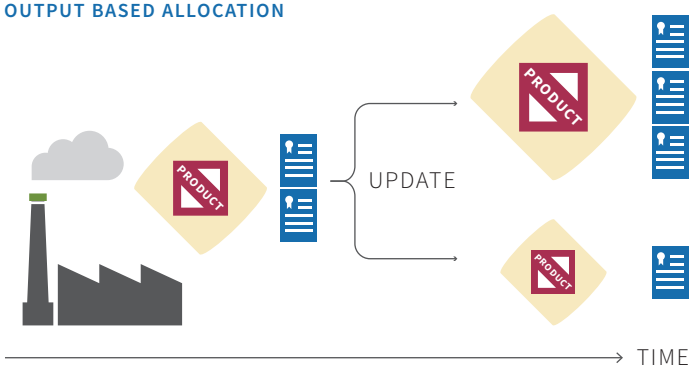
Benchmarking – companies receive free allowances depending on a set of performance standards, based on the emissions intensity of a product or across a sector. Benchmarks may address fairness concerns and reward early action. However, benchmarking requires high quality data and a thorough understanding of (often complex) industrial processes.

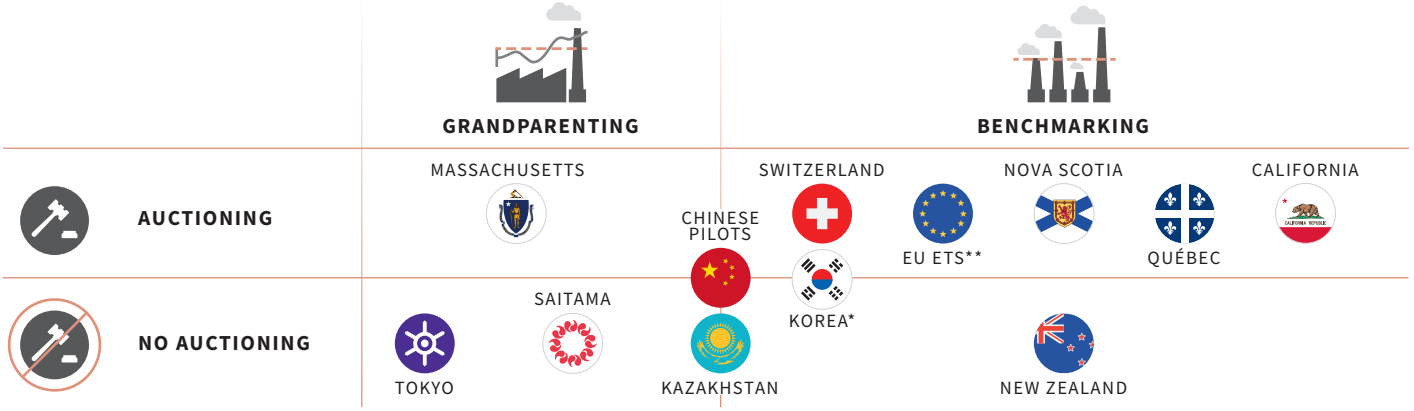
A common method of benchmarking in an ETS is to establish fixed performance standards for certain products or sectors (Fixed Sector Benchmarking). Benchmarks may be fixed at the average performance level, at the best practice level, or a value in between (e.g., the average of the top 10% best performers).

Another method of benchmarking is to update allocation according to the actual output of the company or installation (Output Based Allocation, OBA). This method targets the risk of leakage for vulnerable companies. However, it can also dampen the carbon price incentive for them.

Allocation methods vary across ETS jurisdictions and sectors depending on their circumstances. Auctioning is often used for the power sector, while free allocation has been granted to industrial sectors. Typically, auctioning is limited in the early phases of an ETS but its share tends to grow as the system matures. At least some level of auctioning is considered important to support an active carbon market.

OUTPUT BASED ALLOCATION





*Korean ETS uses benchmarking for cement, refinery and domestic aviation and grandparenting for the other sectors.
** EU ETS at the current phase is using benchmarking for its free allocation sectors, while in previous phases used mainly grandparenting.
Currently, RGGI is the only system that does not use free allocation: almost all permits allocated via auctioning.

ABOUT THE INTERNATIONAL CARBON ACTION PARTNERSHIP: ICAP is an international forum for national and subnational governments focusing on best practices in emissions trading. Its work centers on three main pillars: technical dialog, knowledge sharing and capacity building. For more information see the ICAP website and its ETS map, Allowance Price Explorer, and ETS Library or follow us on Twitter.