

Shooting blanks

Why 'increasing the firepower' of the Market Stability Reserve misses the target



Summary

Introduced in 2018, the Market Stability Reserve (MSR) functions as the oversupply control mechanism of the EU Emissions Trading System (ETS). Created to address structural oversupply on the market, every year it extracts a share of surplus emissions allowances. The MSR came to the rescue of the misfiring ETS by ending a decade of low market confidence and rock bottom prices. In practice it has proven effective, syphoning oversupply out of the system and invalidating (or deleting) over 3.4 billion EU Allowances (EUAs).

Yet, the MSR currently sits in the crosshairs of policymakers seeking to weaken the ETS. Only a few months before the entire ETS undergoes a scheduled legislative review, the European Commission has intervened early by proposing to delete the invalidation mechanism. When the full review is underway additional elements of the MSR will also be under scrutiny.

However, the ETS is still burdened with structural oversupply as [the cap](#) remains overgenerous. And in the future other factors that trigger oversupply - both expected and unexpected - cannot be ruled out, including economic shocks or the impacts of other energy and climate policies (coal phase-outs, electrification, faster rollout of renewables and battery storage).

As the risk of oversupply persists, the MSR must still be capable of permanently deleting oversupply. This maintains the focus on reducing emissions, makes the ETS trajectory more predictable, and helps the system raise revenue for climate action. Despite the potential negative outcomes of altering the MSR during the revision, there is a case for the MSR to be modernised. The intake and release threshold, and the release quantity should be calibrated in relation to a decreasing cap in order to prevent a build up of massive oversupply again. As the ETS becomes smaller, the MSR's triggers and release quantity must become dynamic and shrink in parallel.



Introduction

The EU ETS was burdened by an oversupply of more than two billion allowances by the start of the scheme's phase 3 in 2013 - an approximate equivalent to the size of the [annual cap that year](#). This overhang of allowances depressed the EU carbon price to lows of €5 per tonne of carbon.

The oversupply and resulting low prices undermined trust and confidence in the entire system: it was no longer viewed as an effective instrument to reduce emissions.

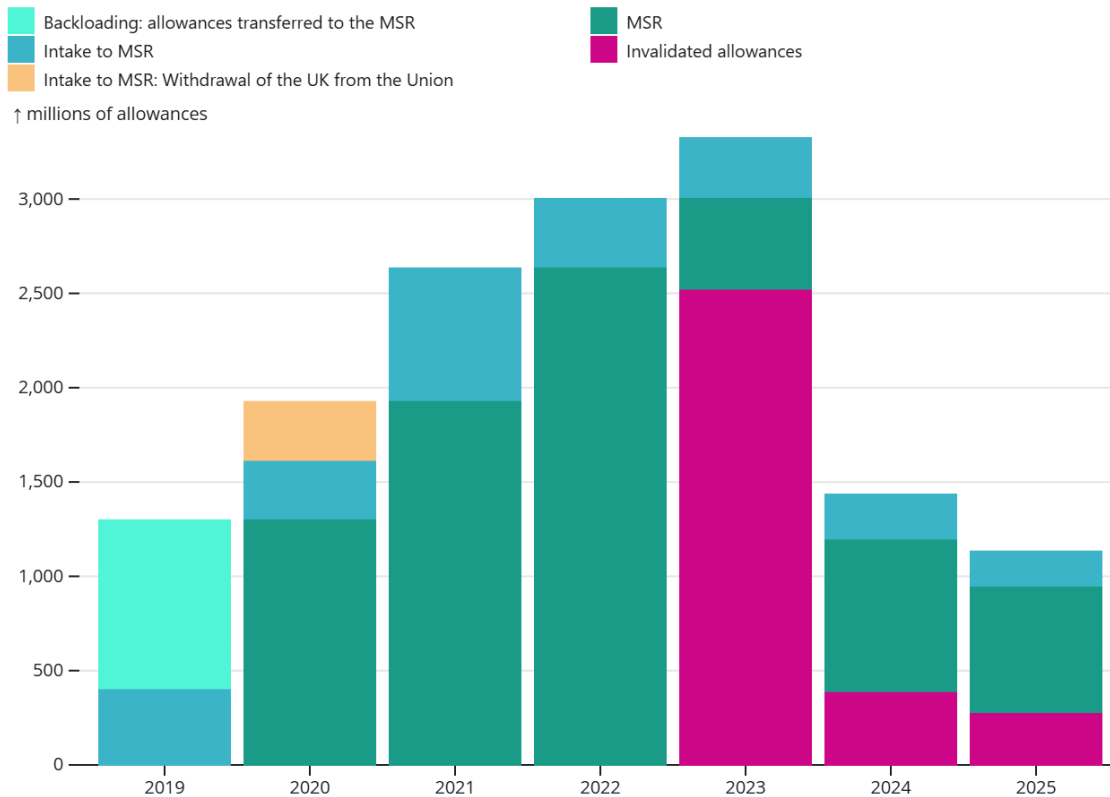
Supply of allowances was rigid and fixed, with the definite cap outlined years in advance. On the other hand, demand for allowances (i.e. emissions from covered installations) could vary significantly year after year - depending on macro-economic cycles; as well as change in consumption, investment and trade patterns. International credits were also allowed into the ETS in that era, which proved a costly mistake that undermined demand for allowances even more. This is also important in the 2040 climate target setting context as EU policymakers have opened the door to international offsets as part of the 2040 climate framework.

As a solution to bring the ETS back on track the Market Stability Reserve (MSR) was added. The MSR is a volumetric mechanism that changes supply predictably according to set numerical parameters and thresholds. Its introduction ended the era of low market confidence and rock bottom carbon prices as now the ETS system had an instrument to address oversupply. It has been designed to deal with historic oversupply, but can also address future oversupply related to economic shocks.

The MSR does not merely soak up oversupply, it also 'invalidates' (i.e. cancels or deletes) allowances to ensure that the oversupply held in the MSR doesn't become an environmental risk over time nor undermine confidence once again in the ETS.

Market Stability Reserve (MSR) in action

3.4 billion ETS allowances invalidated, tightening the EU ETS cap.



Source: CMW own calculations based on European Commission data.

More recently, the [European Commission proposed fundamental changes to this key component of the MSR](#) mere months before the ETS (including the MSR) undergoes a scheduled review. The [Commission argues](#) that scrapping the invalidation mechanism would ‘increase the firepower’ of the MSR. This briefing sets out why this argument misfires, and the MSR needs to maintain its ability to contain oversupply rather than let it build up.



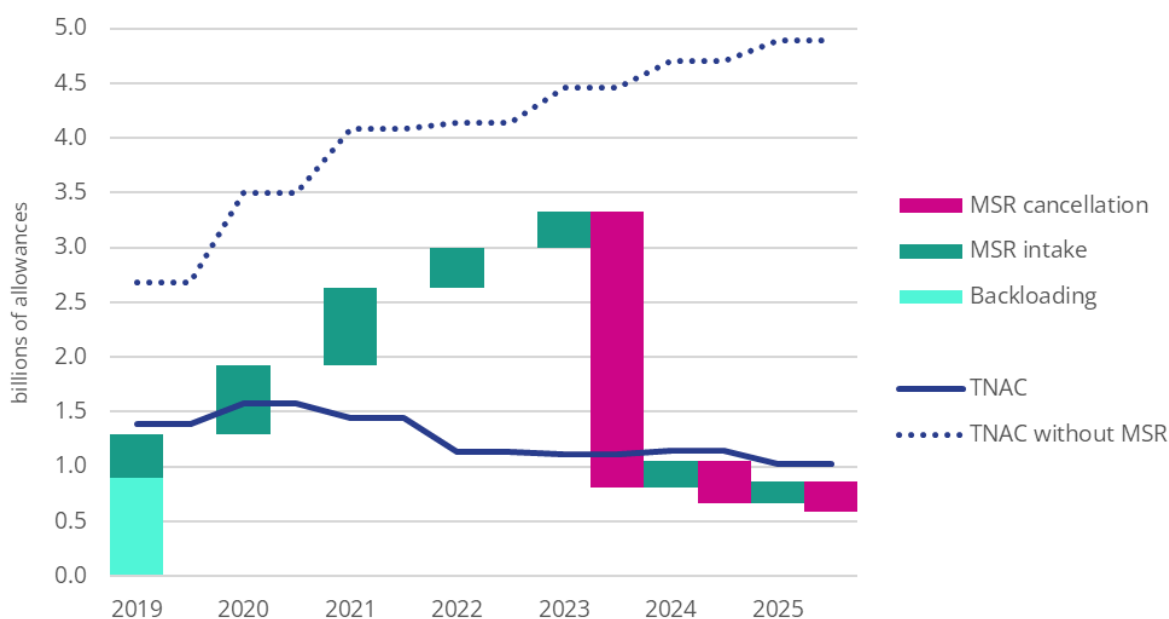
How the MSR works

The MSR operates on an annual cycle, and can either decrease or increase the pool allowances to be auctioned in the year ahead. This gives it the ability to respond to changes in the balance between supply and demand in the ETS.

Each year, the European Commission calculates the 'total number of allowances in circulation' (TNAC), a critical number that helps determine whether there is oversupply in the EU ETS, and how large that excess is. The TNAC is calculated by combining the number of allowances that exited the market (i.e. been surrendered or invalidated) minus the number of allowances that have entered the market (free allocation plus auctioning) since the start of Phase 2 of the ETS in 2008. If the TNAC exceeds 1096 million, 24% of the TNAC (the co-called intake rate - set by politicians) is subtracted from next years' auctioning calendar and placed in the MSR. If the TNAC is between 833 and 1096 million, then the difference between those two goes to the MSR.

The MSR reduces supply in the future because it can not directly syphon off the oversupply in the market. Those allowances are held by private entities that acquired them through auctions, free allocation or on the secondary market. A secondary function is that it also 'invalidates' (or deletes) allowances from the oversupply to ensure the reserve doesn't grow too large.

On 31 December 2022, the MSR held over 3 billion allowances, of which 2.5 billion were cancelled the next day. However, since then the continued structural oversupply of the EU ETS (primarily because the cap was fundamentally set too high) has led to yearly cancellations as the MSR continues to absorb oversupply. In January 2026 a batch of 270 million allowances were deleted by the MSR.



The ETS continues to be in a period of massive and structural oversupply, but the MSR is also meant to address potential future - and so-far hypothetical - cases where allowances in circulation are considered too scarce for market functioning and liquidity. If the TNAC oversupply is lower than 400 million, the market is considered 'too tight' by policymakers. Then the following year 100 million additional EUAs will be taken from the MSR and auctioned.

The MSR is clearly one of the most powerful mechanisms built into the ETS, and its invalidation mechanism is the main source of its 'firepower'.



What's next for the MSR

Deleting invalidation?

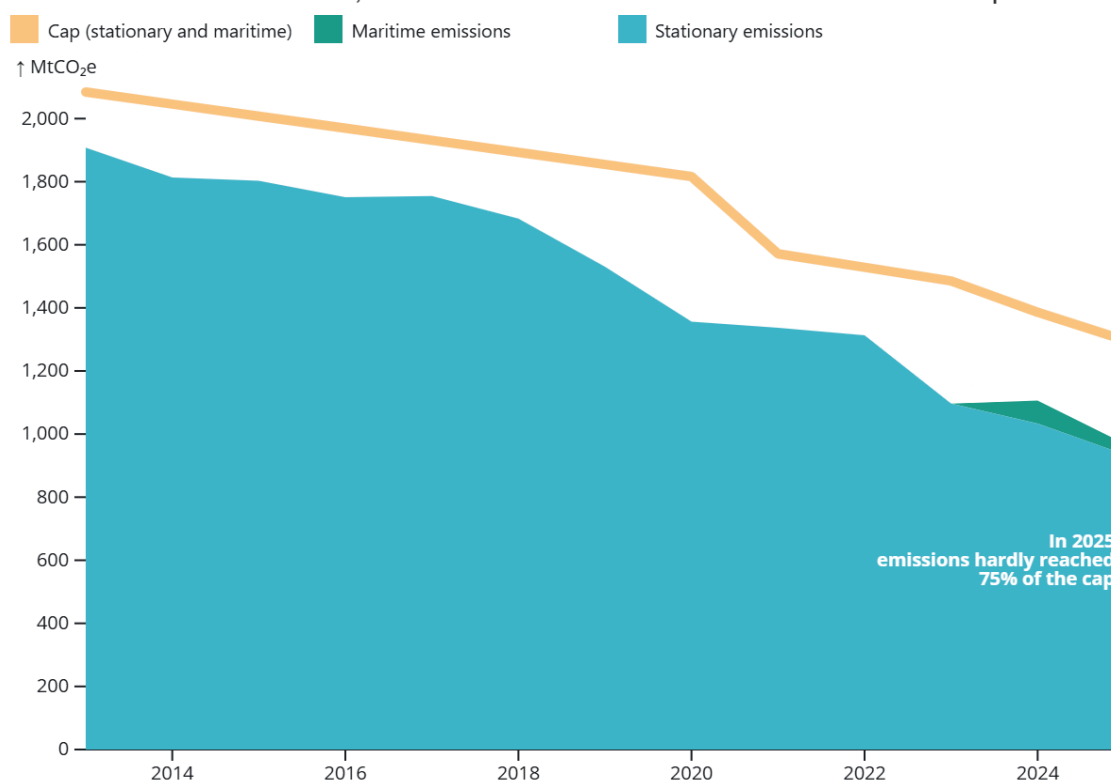
The Commission proposal to delete the invalidation clause will achieve the opposite of 'increasing the MSR's firepower'. Implementing this suggestion would neutralise its key function.

The EU executive's MSR proposal implies that oversupply is no longer a significant problem today or in the future. Its logical inference is that the era of oversupply will imminently be replaced by a new phase of consistent supply shortfall.

But oversupply hasn't stopped entering the market: the ETS is still structurally oversupplied.

What exactly is the cap capping?

Since the start of Phase 3, emissions have never exceeded 86% of the cap.



Source: CMW own calculations based on European Commission data.

And that picture is unlikely to change in the near future. Modelling indicates that the ETS will [remain structurally oversupplied till 2031 at least, but likely even until 2035](#). This means that tampering with the MSR's invalidation mechanism risks recreating massive oversupply in the medium term. It would therefore be misguided to rush through any decision on the MSR before the rest of the ETS revision catches up.

As the era of oversupply is far from over, any attempted tinkering with the invalidation mechanism should wait until after 2035. Before then, the risk of oversupply remains too high, driven in part by a drop in demand that outpaced model suggestions. This could be due to complementary policies such as planned coal phase-outs, [rapid progress on industrial electrification](#), or international and/or economic shocks. The MSR was initially designed to deal with shocks and historic oversupply, and geopolitical crises such as the fossil fuel price hikes caused by the war on Iran show unexpected shocks remain a real risk for the ETS.

Bring the MSR's math in line with an ETS that gets smaller and smaller

Three key numbers that have been set in stone should be revised in the upcoming review: (1) the intake and (2) release thresholds, and (3) the release quantity. These three elements were decided in the early 2020s, and should evolve in correspondence with a decreasing cap. The MSR must change in tandem with the ETS.

The 2024 ETS cap was set at just under 1.4 billion tonnes of CO₂e, while the 2031 ETS cap will be 746 million tonnes of CO₂e - just over half the 2024 cap. But over those seven years the MSR's intake and release thresholds will not change. That 833 million TNAC threshold for triggering intakes was 60% of the 2024 cap, but will be 112% of the 2031 cap - nearly doubling in relative size. Likewise the 400 million tonne release threshold was 29% of the 2024 cap, but 54% of the 2031 version.

Finally, the release quantity of 100 million EUAs means something very different in the early 2020s than in the 2030s: rising from 7% of the 2004 cap to 13% in 2031.

These relative sizes change rapidly as the ETS shrinks after 2030. When the cap reaches 400 million tonnes (under current rules - that shouldn't be changed - in 2035) 100 million tonnes will be released meaning that a colossal additional quarter of total supply will be injected into the system.

The MSR risks becoming a source of unpredictability and volatility if the MSR's triggers and release quantity do not become dynamic and relative to the size of the cap.



Conclusion

Uphold the MSR invalidation clause

The April 2026 MSR1 proposal [must be rejected](#). In addition to it being a rushed, ill-conceived and drastic market intervention, it arrives only a few months before the entire ETS1 system is up for review. That review presents an opportunity to revisit the MSR parameters, not in a silo, but collectively with other ETS1 variables (such as the Linear Reduction Factor) that determine the carbon budget.

[A recent study by Öko-Institut](#) highlighted the risks of tampering with isolated MSR components without considering the broader system dynamics. Öko-Institut's modeling shows that combinations of currently discussed reform options (including MSR cancellation) would risk a new era of dramatic oversupply depressing the ETS and its carbon price signal. But this time without MSR cancellation to control the problem.

Diluting the MSR now risks fundamentally upsetting the market's supply-and-demand balance. This will unduly inflate greenhouse gas emissions after 2030, hindering the achievement of the EU's 2040 climate target. Analysis shows the effect could be up to [900 million extra tonnes of CO₂](#), but as no impact assessment has been published in conjunction with the MSR proposal there is no clarity on the environmental and economic impacts of the proposed changes.

After [2035](#) the market might become short, meaning the MSR will start releasing 100 million allowances per year. There is no need to top up the emission allowance budget, and premature ad-hoc measures to weaken the MSR should be avoided to ensure that as many emissions as possible can be effectively mitigated.

The MSR's functioning should be left untouched till the second half of the 2030's. Otherwise, the EU risks weakening its long-term carbon price signal, further undermining the business case for the deep decarbonisation investments that must be undertaken already today.



CARBON MARKET WATCH

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