

Addressing the supply-demand imbalance in the EU ETS through the Market Stability Reserve

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Objectives of this paper

This paper makes the case that while many levers could be used to address current and future issues related to the carbon market and climate policy in general, including EU ETS market imbalances, each of them should focus on what they were intended to achieve, and not give way to expedience and inappropriate use.

It also makes the case that the market stability reserve (MSR) was intended to address EU ETS market imbalances. The MSR was not presented and intended, and maybe not well equipped, to address other legitimate EU climate goals, which may need addressing. While the EU ETS has many goals, most notably limiting emissions and driving emission reductions, the MSR was meant to contribute to the long-term, relatively stable and predictable signal it is to provide covered entities, in order to assure a 'business case' to decarbonise.

In addition, the paper outlines a number of considerations that should be part of the MSR review, in the context of making the EU ETS "fit for 55".

The Market Stability Reserve: a tool to manage market imbalances

The EU ETS and carbon pricing are critical components of the EU decarbonization process, if environmental delivery and economic efficiency, including flexibility in meeting compliance obligations, are critical criteria in choosing an instrument for decarbonization. We need to ensure that we decarbonize and not deindustrialize.

The functioning of the EU ETS has long been impacted by a what was seen as a "structural" surplus of emission allowances (EUAs), or what was labelled a "supply-demand imbalance".

For the EU ETS, an imbalance is defined as the situation when the total number of allowances in circulation (TNAC) is higher/lower than what is 'necessary' to meet compliance actors hedging needs, primarily the power sector. Simply put: imbalance = TNAC > upper threshold or TNAC < lower threshold.

The fundamental origin of what has been labelled as a "supply-demand imbalance" has to be attributed to the lack of flexibility in the design of the supply side of the EU ETS (since both free allocation and the auctioning schedule had next to no built-in flexibility), while market demand (driven by the amount of emissions) did react to market conditions. Markets are there to achieve price discovery, the rest is for actors to make economically rational decisions based on price signals.

The increase in "imbalance" can be traced back to a number of factors, including:

- Economic shocks;

- Overallocation of free allowances;
- Policy overlaps, most notably with Renewable Energy and Energy Efficiency policies;
- Mitigation action undertaken by covered installations; and
- Influx of international credits.

In the case of the EU ETS, supply overwhelmed demand with, at its peak in 2013, the amount of EUAs in circulation reaching 2.1 billion, which was more than one year worth of market supply. To address this issue, the EU first ‘backloaded’ the auctioning of 900 million allowances between 2014 and 2016, as a temporary measure, and then introduced the MSR, which can be considered to have two goals:

1. Eliminate the historical structural supply-demand imbalance within a reasonable amount of time;
2. Bring the TNAC within range of the MSR thresholds in case of new events within a reasonable amount of time.

The EU ETS, which used the SO₂ market in the United States as an inspiration, started as a simple enough instrument, but has by now become a complex machine (a situation being rediscovered in the CBAM discussion). Given its complexity, the MSR could also be made to address other issues, such as increasing the level of ambition of the EU ETS.

This can certainly be achieved through the MSR, but it needs to be recognized that it is an expedient, but not a principled approach. The MSR was created, as outlined in its objectives, to manage structural existing market imbalances, as well as future imbalances. Through some of its functions, such as the invalidation of EUAs in the MSR through a predetermined formula, it can also de facto modify the cap, and in a very significant way.

A number of observations need to be made in this respect:

- a) at the time of its creation, the MSR was never intended or presented as a tool to address climate ambition;
- b) there are other means available to the EU to address any ambition concerns;
- c) these other means are being revisited at the same time as the MSR review through upcoming proposals under the “fit for 55” package.

Indeed, both the backloading decision and MSR were initially presented by the regulators as a measure that would initially take out, but ultimately return allowances to the market. However, the 2018 review introduced the invalidation mechanism, permanently invalidating allowances, and thus contradicting this initial presentation.

While there is nothing wrong with permanently invalidating EUAs as such, it has, in the author’s opinion, wrongfully become seen by some stakeholders as a characteristic of the

MSR’s functioning. The MSR was never intended, and should not be considered to be, a tool to lower the cap of the EU ETS.

Rather, if the EU feels that there is a need to further lower the cap of the EU ETS in order to meet its new Nationally Determined Contribution (NDC) under the Paris Agreement and domestic greenhouse gas reduction targets, modifying the Linear Reduction Factor (LRF) is the most appropriate and transparent way to achieve that.

There are other approaches that could be used to achieve the ambition objective, including rebasing the cap (a general lowering of the ETS cap to e.g. bring it in line with verified emissions at a certain point) or through enhancing the ambition of overlapping policies.

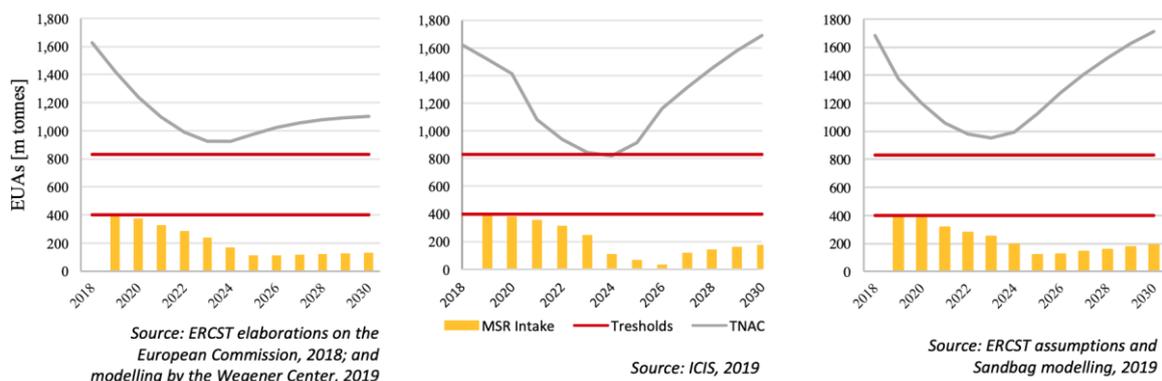
The level of ambition is an important societal decision which should be achieved in a transparent manner, through a full public debate, and not ‘through the backdoor’ by fiddling with MSR provisions. Only in this way the level of ambition will be seen as having received the full endorsement of all stakeholders.

A case could certainly be made that a significant number of allowances may accumulate in the MSR over time, together with an increase in the TNAC, should the absorption power of the MSR not match the decrease in demand resulting from some of the causes listed above. This is certainly a legitimate reason to examine the amounts in the TNAC and in the MSR and potentially take action. However, such an examination should not be undertaken without understanding the origins and causes of such an accumulation, as well as determine how to best treat it. A regular, qualitative assessment is emerging as an appropriate approach.

The current market supply-demand situation

Figure 1 below shows that the market, based on the provisions included in the 2018 review for Phase 4 ETS (but pre-European Green Deal (EGD) discussions) was expected to remain imbalanced throughout phase 4.

Figure 1: three projections of MSR functioning, TNAC and intake volumes 2019-2030



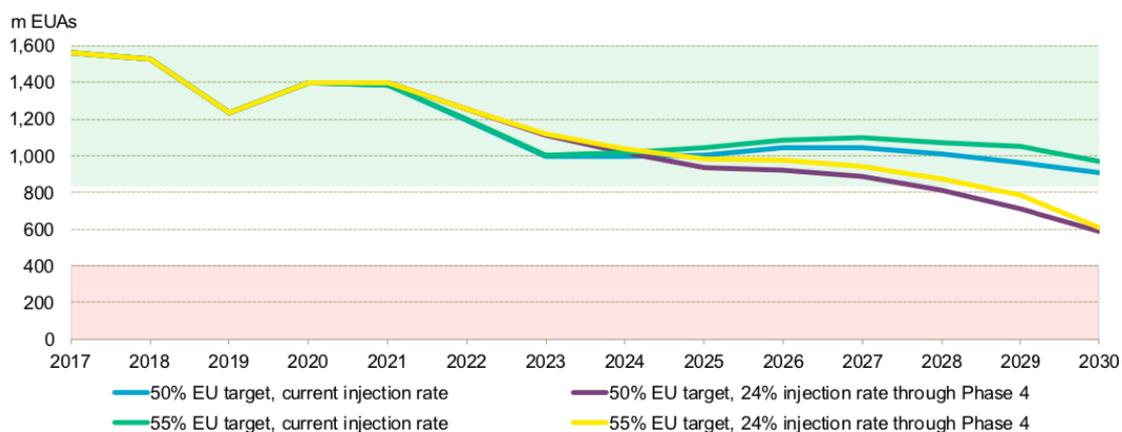
The speed at which the MSR is able to absorb EUAs is no match for the reductions in EUA demand resulting from mitigation actions, mandatory coal phase-outs and overlapping climate and energy policies.

As part of the implementation of the European Green Deal, a net GHG reduction target of -55% has been put forward by the European Commission and endorsed by the European Council. By June, the European Commission will come forward with proposals for various climate and energy policies (the ‘fit for 55’ package) in order to deliver upon this goal, among which for the EU ETS.

The revision of the EU ETS coincides with the scheduled MSR review, and both will be addressed in conjunction. This revision will have to address the situation outlined in figure 1 and ensure a balanced market in Phase 4.

Figure 2 below shows that strengthening the cap / increasing the LRF alone will not be sufficient to achieve this goal. Indeed, lowering the cap in line with an overall 50% or 55% target without altering the MSR parameters would see the TNAC remain above the upper threshold throughout Phase 4. In a scenario where the current intake rate of 24% is continued after 2023, some analysts expect the market to be ‘balanced’ in the final years of the decade.

Figure 2: projections of TNAC under different 2030 targets and MSR injection rates



Source: BloombergNEF

There is therefore a strong case to be made that, in order to ensure that it can contribute to an EU ETS “fit for 55”, the MSR needs to be revisited, potentially in a significant manner.

Addressing the market imbalance: the MSR review

As outlined in Article 3 of the MSR Decision, the goal of the MSR review can be summarized¹ as examining:

1. If the MSR is eliminating the historical structural supply-demand imbalance *within a reasonable amount of time*.
2. If the MSR is bringing the TNAC within range of the MSR thresholds in case of new events *within a reasonable amount of time*.
3. The impact of the MSR on growth, jobs, and competitiveness

For each of the goals of the review KPIs need to be defined if this review is to be, and be seen, as an objective and complete exercise. The KPI outlined below outline current thinking, but further exploration will be necessary. If there are no KPIs, it is difficult to imagine a real assessment taking place.

Figure 3: potential KPIs for assessing each goal of the MSR review

Goal 1 – Eliminate the historical structural imbalance	Goal 2 – Bring the TNAC within range of the MSR thresholds in case of new events	Goal 3 – Monitor the impact of the MSR on competitiveness
<p><u>Indicators for Goal 1:</u></p> <ul style="list-style-type: none"> a. TNAC for 2019-2020 b. Estimated TNAC for Phase 3 compared to TNAC for 2019-2020 c. Estimated number of allowances invalidated in 2023 compared with the difference between the 2018 TNAC and the MSR upper threshold 	<p><u>Indicators for Goal 2:</u></p> <ul style="list-style-type: none"> a.1. Yrs. to absorb variation caused by RES/EE achievements of MS in 2020 vs. 2020 targets a.2. Yrs. to absorb variation caused by RES/EE targets towards 2030 b.1. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) in the period 2019-2020 b.2. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) for the period to 2030 c.1. Yrs. to absorb variation caused by changes in economic growth in the period 2019-2020 c.2. Yrs. to absorb variation caused by changes in economic growth towards 2030 d. Cumulative impact of all the previous indicators for Goal 2, to be estimated through a comparison of different modelling scenarios indicating the long-term trend of the TNAC towards 2030 e. Alignment of hedging strategies to MSR thresholds 	<p><u>Indicators for Goal 3:</u></p> <ul style="list-style-type: none"> a. Carbon leakage impact of EUA price (both direct and indirect costs) b. Carbon leakage impacts from de-facto reducing the EU ETS cap by invalidating allowances c. Change in auction revenues for MS caused by the MSR d. Implications of the MSR on the innovation and modernisation funds

¹ <https://ercst.org/publication-review-of-the-msr/>

To reiterate, there is no doubt that changes will be necessary to the MSR to ensure that the EU ETS continues to be efficient and effective. Some of the considerations should be:

- **Thresholds.** Changes in its thresholds given the fact that there have been and continue to be significant changes in the energy matrix and the behaviour of industrial installations covered by the EU ETS with respect to hedging for compliance. Our definition of what a 'balanced' market was in 2016 may not be the same in 2021.
- **Intake rate.** The rate at which the MSR takes in allowances may have to change in order to deal with any surplus *within a reasonable amount of time*.
- A recognition that market dynamics are much more complex than initially thought. This will impact how the function of the MSR is delivered. There are two aspects that should be examined as part of the review:
 - 1) **Dynamic MSR parameters.** In the case where a formula-based approach is retained, **a dynamic approach to MSR parameters** may provide a good option to examine. This would apply to both the intake rate as well the thresholds, whereby MSR parameters would become a function of the size of the surplus, changing market dynamics (such as hedging needs), etc.
 - 2) **More frequent MSR reviews, accompanied by a qualitative assessment.** More frequent reviews of the MSR, where both the source, as well as the use, of the amount of EUAs accumulated in the MSR will need to be examined.
 - Given the dynamic of changes in global, EU and Member State policy, the dynamism of technological changes, and the societal impact that carbon pricing is catalysing, a periodicity of 2-3 years for reviews should be considered. The governance of such an approach will be controversial, as it would require human judgement, and therefore a departure from the current automated system. Moreover, a trilogue between EU institutions every 2-3 years will also look impractical.
 - The amount of EUAs accumulated in the MSR will have to undergo a qualitative examination before any invalidation is implemented. Invalidation through the current automatic mechanism would not be appropriate as the surplus will have different causes. Some will be caused by overlapping policies and economic downturns, which provides a strong case for cancellation. At the same time, it would seem unjustified and akin to double taxation to cancel EUAs in the MSR resulting from mitigation action undertaken by covered installations.
 - Other uses for the EUAs accumulated in the MSR may also need to be examined, depending on how other elements of EU climate change policy, meant to complement the EU ETS, will be designed. This is especially true

with respect to provisions to address carbon leakage and competitiveness, where there are very real concerns regarding triggering and the impact of the Cross-Sectoral Correction Factor.