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Salvaging the European Carbon Market

Will the Phoenix Rise from the Ashes?

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Abstract

Thanks to the ETS, the largest carbon market in the world has been created. Whilst pursuing ambitious objectives, this market has been subject to a considerable number of imperfections. The success of the ETS is dependent upon a progressive reduction of the individual emissions allocated by the Member State to the various installations, which implies first and foremost a sparing allocation of allowances with the aim of encouraging undertakings to invest in less polluting technologies. However, since the outset, the carbon market has suffered from an over-abundance of allowances granted by the Member States. Due to the unsatisfactory nature of the temporary freeze of allowances, the EU lawmaker sought to re-establish an incentive price signal by adopting decision (EU) 2015/1814 of 6 October 2015, which created the MSR that will become operational in 2019.

Keywords

Carbon market – cap and trade – market stability reserve – freeze of allowances – implementation of the Paris Agreement on climate change

1 Introduction

The eagerly expected Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 which creates a market stability reserve (MSR) for the carbon market, has been largely overshadowed by the negociations surrounding the COP 21, even though it might contribute to enhancing the carbon market on global level. Before analysing the impact which the MSR will have on the allowance price, it is necessary to set out briefly the regulatory framework

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within which Decision 2015/1814 was adopted, the pitfalls with which the carbon market has been confronted in the past as well as the attempts by the EU institutions to re-inject dynamism into this market.

2 European Council Political Objectives

Since 2007, the EU has repeatedly increased its ambitions in the area of the fight against climate change. Initially, the European Council adopted the "20 20 by 2020 rule"), which sought in particular to achieve a reduction by 2020 of at least 20% of greenhouse gas emissions (GHGE) compared to 1990 levels.[1] This target was subsequently raised, with the approval by the European Council in October 2014 of a binding target of reducing EU ~~GGE~~ by at least 40% by 2030 compared to 1990 levels. This objective 'will be achieved collectively by the EU in the most cost-effective manner possible', with reductions required by 2030 in the sectors falling under the Emissions Trading System (ETS) of 43% compared to 2005 levels.[2] Significant efforts will therefore have to be made before 2030 by undertakings subject to the ETS.

The ETS, with 'an instrument to stabilise the market', will be the principal instrument available to the EU for achieving this goal, and the European Council has also called for an increase in the annual rate of reduction of the maximum level of authorised emissions (from 1.74% to 2.2%) starting from 2021.[3] The market put in place after 2005 thus constitutes the cornerstone for the EU climate change policy.

3 The ETS

The ETS was established by Directive 2003/87/EC.[4] Constituting the *piece de résistance* of the EU's climate change policy, the main objective of this Directive

1 Article 8, Decision n° 406/2009/CE of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, *OJ*, n° L 140, 5 June 2009, p. 36. See S. Boysen and M. von Unger, 'Regulation EU Climate and Energy Matters through Conclusions: The Limits of Consensus' *JEEPL* 12 (2015) 128–155.

2 Conclusions 23 et 24 October 2014, EUCO 169/14, para. 2.1.

3 Ibid., para. 2.3.

4 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community, *OJ*, n° L 275, 25 October 2003, p. 2.

is to reduce GHGE in line with the commitments made by the EU and its Member States under the Kyoto Protocol, along with several ancillary objectives – 'sub-objectives of an economic nature'[5] – consisting in the maintenance of the 'cost-effective and economically efficient manner',[6] 'economic development and employment',[7] the presentation of the 'integrity of the internal market'[8] and the maintenance of competitive conditions.[9] A particular effect of this economic logic is to ensure that reductions in GHGE occur at the lowest cost.[10]

Following its entry into force on 1 January 2005, the ETS was significantly amended[11] in 2004, in 2008 and in 2009 in particular in order to meet the political commitments made by the European Council. It has been gradually extended to 12,000 industrial establishments[12] as well as to airliners in relation to certain flights.[13]

Thanks to the ETS, the largest carbon market in the world has been created. It has subsequently been emulated both in China and in the EU. Harmonisation was justified on the one hand by the desire to coordinate the implementation of international obligations (UNFCCC and Kyoto Protocol) and on the other hand out of concerns to avoid distortions of competition. The adoption of a directive in order to harmonise the area reflects the highly decentralised nature of the ETS from the outset. In effect, within the ambit of the shared competence over environmental law, this legal instrument leaves a considerable margin of appreciation to the Member States, which should be assessed with reference to the principle of subsidiarity.[14] Accordingly, the Member States were charged with various tasks in relation to the organisation and control of this market.

Following the entry into force of the rules applicable to the third period (2013–2020) provided for under the amending Directive 2009/29/EC, the

5 Case T-178/05, *UK v. Commission* [2005] *ECR* II-4807, para. 60.

6 Article 1.

7 Preamble, 5th recital.

8 Preamble, 7th recital.

9 Preamble, 7th recital.

10 Case C-127/07, *Arcelor Atlantique et Lorraine* [2008] *ECR* I-9895, para. 32.

11 N. de Sadeleer, *Commentaire Mégret. Environnement et marché intérieur* (Bruxelles, ULB, 2010) 291–313.

12 Several industrial sectors as well as different GHG fall within the scope of the ETS Directive as modified by Directive 2009/29/EC.

13 See Case C-366/10 *Air Transport Association of America & al.* [2011] *ECR* I-13755.

14 Case T-374/07 *Germany v. Commission* [2007], paras. 78 et 79; case T-263/07 *Estonia v. Commission* [2009], paras. 52. See also N. de Sadeleer, 'Principle of Subsidiarity and the EU Environmental Policy' 2012 9(2) 2 *JEEPL* 63–70.

powers of the Member States have been restricted further. As it was necessary to reduce distortions of competition to a minimum, numerous aspects of the system are now governed by Commission regulations. The ETS between decentralisation and centralisation.

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In the end, the EU lawmaker ~~has~~ demonstrated both their boldness and their prudence. The EP and the Council have been bold as the harmonised regime has made it possible to activate one of the mechanisms provided for under the Kyoto Protocol, which has gradually been extended to other sources of emissions. The EU has thus faced up to its responsibilities. However, they have been prudent since, as will be seen below, improvements have been made to the initial regime in incremental stages. These have been necessary in order to rectify a considerable number of imperfections whilst pursuing ambitious objectives. Although this market is not a panacea, the fact remains that it was necessary to send a clear signal to undertakings regarding the need to achieve significant reductions in GHGE and in contributing to the achievement of the long-term goal of keeping the increase in global average temperature to well below 2 °C above pre-industrial levels (Paris Agreement on climate change).

4 Permits and Allowances

GHGE

The ETS reckons upon two essential concepts: permits granted to installations on the one hand and allowances authorising operators[15] to emit a certain quantity of GHG on the other hand.[16] In effect, the 12,000 installations falling within the scope of the Directive are subject to a requirement of an administrative permit in order to emit ~~GHG~~.[17] Since the operator may emit more gases than is permitted to it by the allowance granted by the national authorities – in contrast to other environmental permits – the permit in question does not set maximum emissions thresholds unless this is necessary in order to counter excessive local pollution ("*hot spot*").[18]

15 Article 3(f).

16 Article 3 (a) defines the "allowance" as the emission of 'one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive'. The French Environmental Code defines the allowance as a 'movable good that is exclusively materialized through the registration in the national logbook (Article L 229–15, I (1)). The allowance has been defined by some authors as a mean of paying a debt created by an environmental legislation. E.g. M. Pâques, 'Le système d'échange de quotas d'émission de gaz à effet de serre dans la CE', *Amén-Envt* (2003) 42.

17 Article 4 ETS Directive.

18 Article 9(3) Directive 2008/1/EC.

The permit must stipulate the obligation to surrender, within four months of the end of each calendar year, i.e. by 30 April at the latest, allowances corresponding to the total emissions of the installation during the previous calendar year.[19] In order for the emissions accounted for to be "surrendered" to the national authority, the allowance must cease to be held by the company and be returned to the authority, which cancels it.[20]

An installation may therefore emit less or more CO_2 or other GHGE than were allocated to it. Its operator must therefore acquire supplementary allowances at the end of each period in order to cover excess emissions.

5 Supply and Demand, the Backbone of the EU Carbon Market

Both the success and the sustainability of the ETS result from the simplicity of the principle on which it is based. It amounts to a genuine greenhouse gas market based on a capping mechanism ("*cap and trade*"). The caps were initially set by the state authorities according to their national allocation plans (NAP) and, from 2013, by the European Commission.

Subject to an annual cap which is currently around 2 billion allowances, the ETS authorises undertakings to purchase and sell their emissions allowances (*trade*), which are allocated to them free of charge (for sectors exposed to carbon leakage[21]), or for consideration in the event that they are auctioned by the national authorities (57% for the period 2013–2020). Undertakings are also authorised to purchase and sell their emissions allowances according to their own needs. This market, which operates in a 'cost-effective and economically efficient manner',[22] is open to any natural or legal person, including those resident in third countries,[23] who may purchase, retain or request the cancellation of allowances.[24]

At the end of each year when drawing up its accounts,[25] the operator may be confronted with three scenarios.

19 Article 6(2)(e) et 12(3) ETS Directive.

20 C. Cheneviere et P. Nihoul, 'Les règles européennes visant à lutter contre le réchauffement climatique' 159 (2009) *JDE* 127.

21 See Commission Decision of 27 October 2014 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage, for the period 2015 to 2019, *OJ*, n° L 308, 29 October 2014, p. 114.

22 Article 1.

23 Article 3(g); Article 12(1) and Article 25.

24 Article 12(4).

25 Article 12(3).

First, where it surrenders to the national authority a number of allowances equal to the total of its GHGE, the operation is neutral.

Second, by producing less or using better technologies abating the GHGE, it will be able to reduce its emissions; as it is not required to surrender any unused allowances allocated to it, it may sell them to a third party. If this scenario is generally applicable, demand will be weaker than supply.

Finally, if its emissions are higher than the allowances initially issued, the operator will be required to cover all of its emissions by obtaining supplementary allowances, which it may purchase on the market. If it fails to do so, it will be punished.[26]

Any allowance surrendered is immediately cancelled by the national authorities in order to prevent it from being used further.

Since undertakings reduce their GHGE by selling their allowances to those with higher GHGE, the system is characterised by flexibility, as the market organises itself in the most elastic manner possible. Accordingly the operator must weigh up on the one hand the cost of an investment aimed at reducing emissions or delocalising outside the EU against on the other hand the cost of acquiring supplementary allowances and the risk to which it exposes itself due to price variations. This decision falls exclusively to the undertaking, and cannot be dictated by the public authorities. In order to enable the full unimpeded operation of supply and demand, neither the Commission nor the Member States are authorised to intervene on the carbon market.

6 The Gap between Theory and Practice

In theory, the success of the emissions allowances trading regime is dependent upon a progressive reduction of the individual emissions allocated by the Member State to the various installations, which implies first and foremost a sparing allocation of allowances with the aim of encouraging undertakings to invest in less polluting technologies. In effect, it is only by rendering the resource scarcer that the holders of permits may be incentivised to emit less ~~GHG~~. In addition, the number of allowances allocated must also be determined in such a way that demand is higher than supply in order to push the price upwards. Thus, a high price of carbon should result from increasingly scarce allowances, which should logically encourage undertakings to invest in new technologies.

GHGE

26 Article 16(2).

However, since economics is far from an exact science, the gap between theory and practice has quickly grown. Various events have undermined the virtuous circle imagined by the economists who devised this market.

Since the outset, the system has suffered from an over-abundance of allowances granted by the Member States in accordance with the previous *grandfathering* schemes.

Subsequently, the credibility of the market was called into question by successive instances of fraud and theft.

In addition, the volume of certified reductions of emissions and emissions reduction units resulting from offsetting projects in developing countries[27] (clean development mechanism or joint implementation) has contributed to heightening the volatility of the price of the allowance.[28]

However, above all the economic slowdown starting in 2008 led to a glut in the supply of allowances placed on the market,[29] as the number of allowances to be distributed in the Member States was calculated on the basis of industrial production prior to the start of the financial crisis. Since no mechanism for adaptation had been put in place by the EU legislation, the market was quickly flooded with unused allowances, leading to a steep fall in the price of the allowance. It therefore cost less to purchase allowances than to reduce GHGE.

Whilst the price of the emission allowance amounted to around € 25 at the start of 2006, when supply exceeded demand in May 2006 it collapsed.[30] As the value of the allowance that year was only € 13, the gas emissions reduction target could no longer be achieved. The financial crisis subsequently led to a fall in the price. In May 2009, due to the fall in emissions resulting from the slowdown in industrial activity, the price was around € 11.

In 2014 and 2015, the price of the allowance oscillated between 5 and 7 €, although it should have been higher than 20 euros in order to encourage industry to develop clean technologies. In the end, between 2005 and 2014 the price fell from € 30 to € 5.

27 N. de Sadeleer, *Commentaire Mégret*, *above,* 293.

28 Recital 3, Commission Regulation (EU) No 176/2014 of 25 February 2014 amending Regulation (EU) No 1031/2010 in particular to determine the volumes of greenhouse gas emission allowances to be auctioned in 2013–20, *OJ*, n° L 56, 26th February 2014, p. 11.

29 Recital 3, Commission Regulation (EU) No 176/2014 of 25 February 2014.

30 Prices plumetted to below EUR 10 per tonne in a few days beginning May 2006. E. g. M. Cetin and M. Verschuere, 'Pricing and hedging in carbon emissions markets', International journal of theoretical and applied finance 2009 12 (7) 949.

6 Rendering the Allowances Placed on the Market Scarcer in the Course of the Third Period 2013–2020

Since 2013, a more centralised regime based on the setting of the level of allowances by the Commission[31] has replaced the decentralised regime applicable during the first two periods (2005–2007 and 2008–2001).[32] In contrast to the administrative permit,[33] allowances must either be auctioned off by the national authorities or allocated free of charge to operators from the sectors that are exposed to 'carbon leakage' and not to installations as such.[34] This without doubt represented a Copernican revolution as this reform had the effect of reducing the margin of appreciation originally granted to the Member States, which were no longer able to rely on their national plans.

It follows that the Member States are required to auction all allowances that are not issued free of charge. Allowances should be distributed to bidders according to the following arrangements:[35]

- 88% are distributed between the Member States on the basis of their emissions;
- 10% are distributed for the purpose of solidarity and growth;
- 2% are distributed between the Member States whose GHGE in 2005 were at least 20% lower than the reference year applicable to them under the terms of the Kyoto Protocol.

Commission Regulation 1031/2010 established a framework governing the auctioning procedures.[36] Accordingly, the number of allowances that are to be auctioned off each year, after deducting the allowances allocated free of charge from the number of allowances issued that year for the Union as a whole, have been fixed by the Commission for an eight-year period (2013–2020). Commission Regulation (EU) no. 1210/2011 provided for a derogation from this timetable by setting a number of allowances to be auctioned earlier, by 2013, and correspondingly reducing the number to be auctioned in 2013 and 2014, with the main objective of ensuring a smooth transition from the second to the third trading period.

31 Article 13(1).

32 N. de Sadeleer, *Commentaire Mégret*, *above,* 304 à 307.

33 Article 4.

34 Article 11.

35 Article 10.

36 Commission Regulation (EU) No 176/2014 of 25 February 2014.

Furthermore, the global quantity of allowances destined for fixed installations will fall annually by a rate equal to 1.74% of the allowances initially issued by the Member States.[37] A more ambitious linear factor will be imposed in the long run, with the upper limit falling by 2.2% from 2021.[38] This continuous effort at reduction should in principle restrict supply.

For the period 2013–2020, the number of allowances to be put up for auction should amount to 8,176,193,157 allowances.[39] This total quantity of allowances for the entire EU was calculated on the basis of the national plans approved by the Commission and implemented between 2008 and 2012.

For 2013, the quantity of allowances was established under Article 1 of Commission Decision 2013/448/EU at 2,084,301,856.[40] Thanks to the application of the linear reduction factor of 1.74%, this overall total was reduced in 2014 by 38,264,246 allowances.[41]

However, hopes of gradually rendering the allowances placed on the market scarcer through this linear reduction mechanism quickly evaporated. According to the Report from the Commission to the European Parliament and the Council on the state of the European carbon market in 2012, the imbalances between supply and demand were expected to continue, and 'would not be sufficiently addressed by adapting the linear trajectory to a more stringent target within this framework'. One difficulty related to the surplus allowances that were not cancelled during the second period (2008–2012), which have increased the number of allowances available during the third period (2013–2020).

The imbalance between supply and demand is such that it currently translates into a surplus of around 2 billion allowances,[42] which is ultimately expected to increase to 2.6 billion. This surplus of allowances has led to prices that are too low, which do not appear to provide any incentive to undertakings to invest in new technologies.

37 Recital 13, Directive 2009/29 and Article 9.

38 With respect to aviation, the linear factor amounts to 3 %, threshold that has been increased since 2013 up to 5 %.

39 Recital 26, Commission Decision 2013/448/EU of 5 September 2013 concerning national implementation measures for the transitional free allocation of greenhouse gas emission allowances in accordance with Article 11(3) of Directive 2003/87/EC of the European Parliament and of the Council, *OJ*, n° L 240, 7th September 2013, p. 27.

40 Commission Decision 2010/634/UE of 22 October 2010 adjusting the Union-wide quantity of allowances to be issued under the Union Scheme for 2013 and repealing Decision 2010/384/EU, *OJ*, n° L 240, 23rd October 2010, p. 34.

41 Recital 21, Commission Regulation (EU) 2013/448/EU.

42 Recital 4, EP and Council Decision 2015/1814.

More action was therefore needed in order to restore credibility to the carbon market.

8 The Temporary Freeze of Allowances by the Commission

The Commission report on the state of the European carbon market in 2012 stressed the need to take action in order to counter the structural imbalances between supply and demand. A first attempt at stabilisation was made in 2013. Based on the principle that price increases are driven by scarcity, Decision 1359/2013 of the European Parliament and of the Council amended Article 10(4) of Directive 2003/87/EC so as to enable the Commission to amend Regulation 1013/2010 on the auctioning of allowances.

According to legislative Decision 1359/2013, the Commission was thus authorised to alter the timetable for the auctioning of GGE allowances in order to ensure the proper functioning of this market.

However, this intervention on the carbon market was subject to various conditions, which had the effect of limiting its scope. Envisaged as an 'exceptional' measure in order to avoid undermining legal certainty for operators,[43] this temporary freeze was limited to 'one such adaptation for a maximum number of 900 million allowances'.[44] In the end, this technique known as *backloading* would only enable the Commission to delay the auctioning of allowances. Absent a long-term structural measure, this intervention by the Commission did not enable surplus allowances to be absorbed.

In accordance with this authorisation, the number of allowances that was to be auctioned off each year during the period 2014–2016 was reduced in line with Regulation (EU) no. 176/2014 of 25 February 2014 amending Regulation (EU) no. 1031/2010.

9 The New Market Stability Reserve: the Beginning of the End or the End of the Beginning?

Due to the unsatisfactory nature of the temporary freeze resulting from legislative Decision 1359/2013 and given the absence of any power to establish an independent regulatory authority that could reduce the surplus, the EU lawmaker sought to re-establish an incentive price signal by adopting

43 Recital 2 EP and Council Decision 1359/2013.

44 Article 10(4).

decision (EU) 2015/1814 of 6 October 2015, which created the MSR that will become operational in 2019. In a nutshell, this mechanism is focused on two axes.

First of all, the 300 million allowances in 2019 and 600 millions allowances in 2020 provided for under Commission Regulation (EU) no. 176/2014 will not be put up for auction during these two years. Instead, these 900 million allowances will be placed into a reserve.

Moreover, from 2019, a number of allowances corresponding to 12% of the number of allowances to be put up for auction will be deducted each year from the numbers destined for auction (i.e. around 100 Mt of the 833 Mt in circulation). This withdrawal should enable the ETS to improve its resilience over the coming years.

However, whilst the number of allowances in circulation will be lower than 400 million, up to 100 Mt of the allowances placed in the reserve could be released each year for auctioning.

Therefore, the number of allowances eligible for auction will be adjusted either upwards or downwards. Although this system will not on its own provide an answer to the challenge of global warming, it should make it possible to enable a price signal to emerge, which has been lacking until now.

This new mechanism is significantly different from that provided for under legislative Decision 1359/2013 since the number of allowances to be withdrawn from or re-injected into the market is determined in advance and is not set at the discretion of the Commission. Furthermore, the intervention is not dependent upon the price of the allowance but occurs automatically, depending upon the volumes traded.[45]

Nevertheless, this decision does not call into question the philosophy underlying the carbon market. Since no floor price will be set by the public authorities, the price will continue to result from the interplay between the supply of – which will now be reduced – and the demand for allowances. Indeed, the invisible hand of the market does not always find space to operate. The lesson will still have to be learned: without any public intervention, the carbon market is falling short of achieving the objective of reducing GHGE.

However, this is not the end. As the MSR is more of a fire-fighting operation, it does not amount to a structural reform. It is perhaps not even the beginning of the end. But, as in the 1942 Winston Churchill's message, 'it is, perhaps, the end of the beginning'.

45 J.-C. Rotouille, *L'utilisation de la technique de marché en droit de l'environnement. L'exemple du système européen d'échange des quotas d'émission de gaz à effet de serre* (Panthéon Assas, Paris, 2015) 391.

In fact, one might validly ask whether the future reserve will be a panacea for resolving the imbalance between supply and demand over the long term. Will it be enough to correct the congenital structural defects of the ETS? First of all, since they are predefined, the planned allocations to the MSR and withdrawals will not offer any room for manoeuvre either to the European Commission or to the 31 Member States of the European Economic Area as these operations do not depend upon the price of the allowance. There is no doubt that the rigidity of allocations to the reserve stands in contrast with the flexible nature of the carbon market.

Moreover, the allowances withdrawn over the coming years will ultimately be re-released (sold or auctioned). It is not certain that this re-release will be able to contribute to rebalancing supply and demand. In effect, this temporary freeze could result in the auctioning off of significant numbers of allowances at the end of the trading period, i.e. in 2020, which could compromise the stability of the market. Out of a concern for avoiding a risk of overheating, Decision 2015/1814 seeks to mitigate the impact of the carry-forward of the allowances that will be temporarily allocated to the reserve. Consequently, in order to avoid any imbalance within the market due to the supply of allowances at the end of a trading period and at the start of the following period, lawmakers introduced a mechanism into Article 10 of the Directive enabling part of any significant increase in supply at the end of a trading period to be auctioned over the course of the first two years of the following period.

In the end, everything suggests that the implementation of the Paris Agreement on climate change will lead to EU to pursue more ambitious policies in the area of energy efficiency and support for renewable energies, which could in the long run result in a fall in demand for allowances. Thus, it will not be easy for the MSR to adjust to such developments, as it operates downstream from public and private action in relation to climate and energy.

Will the MSR mitigate the risk of a fall in the price of the allowance? This is the rub. As a kind of Sword of Damocles, the over-allocation of allowances will ultimately compromise the survival of the most ambitious carbon market in the world.

Finally, there is a question as to who will operate the MSR. Will it be the Commission or an ad hoc body to which competence is delegated? What will the operator's competences be?

10 Conclusions

In the wake of the 2016 Paris Agreement, these various issues cannot be minimised since, whilst nobody will object to the lack of instruments for achieving

the ambitious objectives set by the new agreement, the establishment of one or even several carbon marketplaces would appear to be the cornerstone for a global climate policy. Time will tell whether the structural freezing of excess allowances will enable the Phoenix to arise out of the ashes or whether it will prove to be a stop-gap solution which will sooner or later need to be dealt with properly.

The new scheme once again evokes the Sisyphean efforts of the EU institutions in tirelessly pushing this rock to the top of a mountain in the kingdom of the dead which, as soon as the target has been achieved, once again rolls down to the foot of the slope.