

The EU ETS Market Stability Reserve: a debate on its effectiveness

After having published in January 2014 the legislative proposal to introduce a Market Stability Reserve (MSR, henceforth) in the EU ETS, the EU Commission opened the debate with its stakeholders. At the end of June, a technical meeting of experts and professionals was convened to examine its parameters and its impact on the balance of supply-demand of the EU ETS. If the initial positions taken by the Member States and stakeholders reflect a favorable response, the question to know if this reserve improves the functioning and credibility of the EU ETS in the long term is the whole purpose of the debate.

The first MSR models seem to show that it would lead to an increase in the CO₂ price by 2030 and to support earlier emissions abatements. However, certain results have also highlighted that its functioning based on predefined rules of engagement could be a source of instability in the balance of the EU ETS. Also, recommendations for revising the rules of intervention of this MSR multiply.

Firstly, its timetable and operating thresholds could be adjusted. While the Commission has proposed to implement the MSR in 2021, some member states including Germany and Sweden called for its earlier introduction in 2017. Moreover, the thresholds triggering largely determines its effect on balance and therefore the price of EU ETS. With regard to banking and hedging strategies of actors, France suggests increasing its threshold to 800 and 1,300 million allowances instead of 400 and 800 million as proposed by the Commission. For their correction, the MSR review scheduled in 2026 will be crucial. Also, France recommends strengthening the monitoring capacity of the EU ETS by creating an advisory committee of experts.

There have been questions regarding the feeding system and the effectiveness of its asymmetric formula which states that 12% of the allowances in circulation in a year should be put into the reserve while withdrawing 100 million quotas as soon as the minimum threshold is reached. France recommends a symmetric response formula. Finally, there is the question of the future of the quotas removed as part of backloading between 2014 and 2016. Should this volume of allowances be auctioned as planned earlier or returned to the MSR? Germany is in favor of the second scenario.

Since this proposal whose aim is to maintain the surplus of allowances in a corridor still raises some uncertainties, which other reforms would be better suited to improve the functioning and the credibility of the EU ETS in the long term? To sustain the debate and without prejudicing its political support, we have conducted a multi-criteria analysis¹ on five reform measures: a reserve price, a corridor of surplus (MSR), an adjustment mechanism of the supply based on the level of economic activity, an adjustment mechanism of the supply based interactions with the "RES and EE" objectives, and a rolling emissions cap (periodically revised with a long-term ambition). Each option was assessed according to performance criteria, in terms of CO₂ emissions reductions, its politico-economic efficiency and its institutional feasibility, weighted by the preferences from the panel of EU ETS experts (public policy makers, EU ETS operators and academic researchers).

This analysis concludes that in priority, according to the panel of experts, the choice of policy option should be based on its contribution to CO₂ emissions reductions and its politico-economic efficiency rather than on institutional feasibility (time implementation, institutional capacity and financial and administrative costs). According to these two priorities, the MSR is not the preferred option to restore the long-term credibility of the EU ETS and other options such as the reserve price or the rolling emission cap are considered more useful to restore the credibility of the scheme. However, when the institutional feasibility is considered as a priority, the corridor surplus (MSR) appears in the first position in the ranking.

Building consensus between stakeholders constitutes the main difficulty for the regulators. Indeed, if the reserve price gets lower level of consensus among the panel, the MSR and the rolling emissions cap have the broadest support. Finally, our analysis shows that the "certainty" seems to be preferred to the "ambiguity" and "automation" seems to be preferred to the "discretionary" action. MSR seems to be a proposal that goes in the right direction at least if you listen to the *vox populi* of the EU ETS.

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1. Desai Z., Alberola E. and Berghmans N. (2014), "Introducing short term flexibility in the EU ETS to assure its long-term credibility: a multi-criteria analysis of policy options", CDC Climate Report n°45.

Key points

- **Auctioning of aviation allowances:** Will restart from September 2014.
- **Market Stability Reserve:** Germany and France have clarified their positions. Germany wants back loaded allowances to return to the reserve, France suggests setting higher threshold.
- **EU ETS Phase 4:** The EU Commission held its first stakeholder meeting on June 13th to discuss experiences of free allocation with regards to carbon leakage from phases 2 and 3 to improve the fourth phase.

Trading volumes: EUA -15.6%, CER -15.6%, ERU -39.6%



* Spot & futures, exchanges & OTC cleared

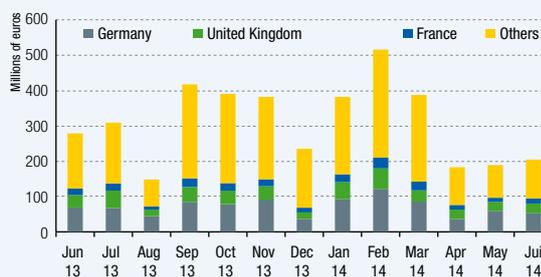
Source: CDC Climat Research calculation, based on data from EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

Price of Dec. 14 contract: EUA +8.8%



Source: CDC Climat Research, ICE Futures Europe

Income from Phase 3 auctions: 204.6 M€ in June (+8.24%)



Source: CDC Climat Research based on data from ICE Futures Europe, EEX

Energy

Primary energy prices and electricity prices

		June 2014	
Coal	API # 2 CIF ARA (First month in USD/t)	72.9 ▼	
Natural gas	NBP (spot in €/MWh)	16.8 ▼	
	TTF (spot in €/MWh)	17.4 ▼	
Crude oil	Brent (First month in USD/b)	112.0 ▲	
Electricity	Germany (€/MWh)	Spot	33.5 ▲
		Calendar	34.4 ▼
	United Kingdom (€/MWh)	Spot	45.5 ▼
		Next summer	61.0 ▼
		Next winter	68.0 ▲

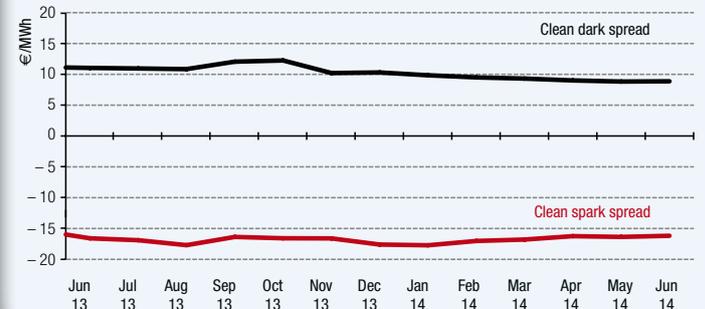
Sources: CDC Climat Research, Thomson Reuters

Clean dark, clean spark spreads and switching price

	Clean spark (€/MWh)		Clean dark (€/MWh)		Switching Price (€/tCO ₂)	
	spot	futures	spot	futures	spot	futures
Germany*	-3.4	-16.2	9.8	8.9	18.3	28.9
United Kingdom*	14.5	11.3	20.8	34.8	16.7	27.0

* Germany, 2015 calendar contract, United Kingdom, summer 2015 contract.

German baseload – monthly average of Cal. 2015 clean dark and clean spark spreads



Sources: CDC Climat Research, Thomson Reuters

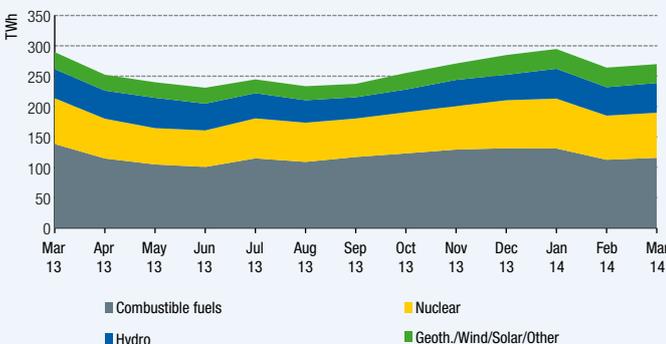
In June 2014, the average monthly price of Brent crude oil has increased by 2,5% to reach \$112,0/b. The volatility in the oil prices is attributed to tensions in Iraq and possibility of US intervention in Syria. The gas prices have continued to fall over the month of June: NBP spot prices fell by 11.6% to reach 16.8 €/MWh while TTF spot prices fell by 8.9% to reach 17.4 €/MWh. The falling prices can be attributed to reduced fears of an external shock coming from disruptions in gas supply by Russia. With regards to electricity, German spot prices increased by 2% while calendar 2015 prices saw a small decrease of 0.2%. The relative stability in the prices in the electricity sector is due to the stability in average of the weather conditions in Europe over the past month. Meanwhile, the German clean spark prices fell on both the spot and the futures market while the clean dark prices rose slightly on both markets. In these conditions, the theoretical carbon price that would make switching to natural gas profitable was calculated at €18.3 tCO₂ in June.

Production

Electricity generation (TWh)

EU 20 (in TWh)	Mar. 14	Cumulative from Jan. 14	Year-on-Year (% change)
Production	270.1	829.9	-5.1%
of which - Combustible fuels	115.6	358.9	-15.1%
- Nuclear	74.3	229.1	0.0%
- Hydro	49.0	145.0	1.2%
- Geoth./Wind/Solar/Other	31.0	95.8	25.3%

* Gas, coal, oil.

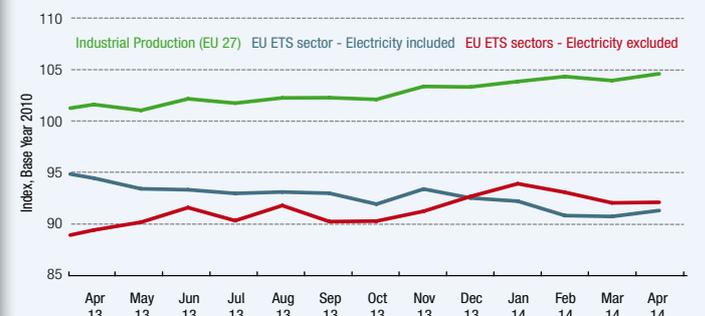


Sources: CDC Climat Research, from IEA data

Production indices (Index base year 2010)

EU 27	Apr. 14	Last month (pts)	Year-on-Year (pts)
Indust. Prod. (excl. construction)	104.6	0.7	1.9
EU ETS sectors production* (incl. electricity)	91.3	0.6	-1.3
EU ETS sectors production* (excl. electricity)	92.1	0.0	0.7
Electricity, gas and heating	90.9	0.9	-2.4
Cement	80.0	0.9	0.9
Metallurgy	101.0	-0.6	1.4
Oil refinery	92.4	0.1	-0.7

* Index weighted by EU ETS sectors's weight in average total allocation over 2008-2012

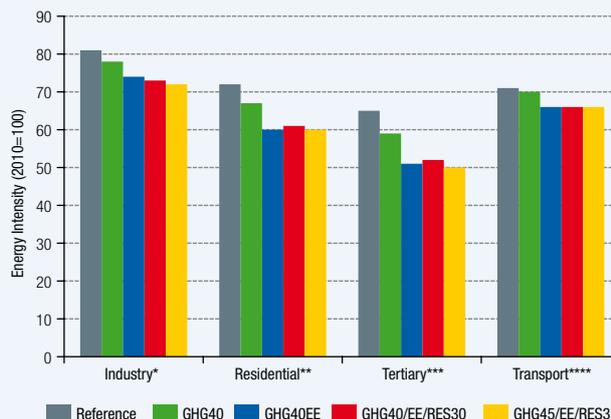
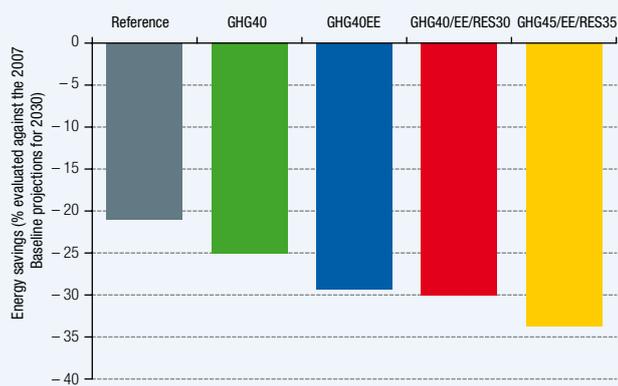


Sources: CDC Climat Research from Eurostat data

The industrial production recovery continues. In April 2014, compared with March 2014, seasonally adjusted industrial production rose by 0.8% in the euro area and by 0.7% in the EU27, according to estimates by Eurostat. Compared to April 2013, industrial production in the euro area grew by 1.4% and by 2.1% for EU27 countries. The highest increases in industrial production were registered in Portugal (+6.7%), Lithuania (+4.9%), the Netherlands (+3.5%) and Hungary (+2.5%). However, our EU ETS sector production index (including electricity) saw a marginal increase of 0.6% while this index excluding electricity remained unchanged. The electricity generation in EU20 countries in March 2014 was 270.1 TWh. Compared to February 2014, the electricity generation increased by 2.1% and decreased by 7.2% compared to March 2013. The increase in electricity generation is attributed to the increase in combustion fuel (2.8%), nuclear energy (2.1%) and hydraulic (4.6%) and fall in renewable sources (3.6%).

Coordination of CO₂, EE and RES policies

The EU 2030 energy and climate package proposal: impact on energy savings and energy intensity



Note: Reference refers to the scenario with no additional climate and energy policies on the trajectory of the 2020 objectives, GHG40 refers to the scenario with only a 40% GHG target, GHG40/EE refers to the one with additional ambitious EE policies, GHG40/EE/RES30 refers to the one with an additional 30% EU level renewable energy target and GHG45/EE/RES35 refers to the one with a 45% GHG target and a 35% EU level renewable energy target.

* Measured as energy consumption/value added; ** Measured as energy consumption/private income; *** Measured as energy consumption/value added;

**** Measured as energy consumption / GDP.

Source: European Commission, Impact Assessment, A policy framework for climate and energy in the period from 2020 up to 2030, PRIMES model, 2014.

The EU Council, which met on June 26th, took stock of progress made towards the decision on the 2030 climate and energy framework expected in the next EU Council of October. This meeting stressed the importance of swiftly developing the key elements of the framework and is looking forward to the Commission presenting a review of the Energy Efficiency Directive. Then, the EU Council welcomed the Commission's European Energy Security Strategy (EESS). The EU Council called for increased efforts to reduce Europe's high energy dependency and supports the implementation of a set of most urgent measures to strengthen Europe's resilience and increase its energy security in the short term, before the winter of 2014-2015. On June 12th, during the EU Council for energy, some convergence of views has emerged between Member States regarding the governance principles envisaged for the implementation of the 2030 framework. Several delegations still expect clarifications from the EU Commission on certain aspects of the proposal in order to commit to specific targets.

Institutional environment

Phase 3 supply balance table

	2013	2014*
Auctions (MtCO₂)	804	290.6*
Free allocation (MtCO₂)	843	767

*till May 2014

Free allocation status table

EU Member State	2013	2014
France	82	81
Germany	169	163
United Kingdom	66	64
Others	526	459
TOTAL	843	767

CER and ERU supply

	June 14	Last month change
Number of CDM projects	12,201	+1,068.0
<i>of which - registered</i>	7,530	+20.0
<i>with - CER issued</i>	2,601	+8.0
Cumulative volume of CER issued (Mt)	1,466	+6.0
Number of JI projects	788	0.0
<i>of which - registered</i>	604	0.0
Cumulative volume of ERU issued (Mt)	849.5	+0.5
<i>via - Track 1</i>	824.0	+0.1
<i>via - Track 2</i>	25.4	+0.4

* CDC Climat Research's model: <http://www.cdcclimat.com/The-risks-of-CDM-projects-how-did-only-30-of-expected-credits-come-through,900.html?lang=fr>

Regarding the phase 3 of the EU ETS, on June 27th, DG Climate announced that the auctioning for aviation allowances will restart from September 2014. To prepare for the phase 4 of the EU ETS on the carbon leakage issue, the Commission has decided to hold three stakeholder meetings on 13th June, 10th July and 25th September, laterally with the ongoing public consultation to canvass opinions on different options to avoid carbon leakage after 2020. On June 13th, the 1st meeting discussed the experiences of phases 2 and 3 of free allocation with regard to issues like carbon leakage and innovation and the measurement and monitoring of industrial competitiveness. Regarding the Market Stability Reserve (MSR), France and Germany clarified their positions. Germany wants the MSR to be implemented before 2021 with the back loaded allowances returned to the reserve than to the auctioning market. France suggests technical changes with regards to setting thresholds at a higher level, to the formula for filling and emptying the reserve and setting up of an independent advisory board for market diagnosis to signal signs of distress.

Sources: CDC Climat Research, European Commission, JCE Futures Europe, EEX

Sources: CDC Climat Research, UNEP, Risoe

Carbon markets dashboard

Primary market - EUA auctions in Phase 3

		Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
Common Auction Platform + United Kingdom & Germany	Price (€/t)	4.23	4.16	4.40	5.19	4.83	4.51	4.62	5.00	6.45	6.35	7.35	5.03	5.54
	Volume (Mt)	65.89	76.65	33.65	80.33	80.62	84.53	50.90	76.31	80.33	60.98	35.22	37.72	37.02
Auction Revenues (M€)	Germany	68.98	67.09	44.50	84.82	78.19	91.29	36.66	92.28	121.62	85.73	36.53	59.46	52.45
	United Kingdom	35.06	49.65	18.30	42.33	38.40	37.87	18.27	48.43	57.88	31.69	26.48	25.35	27.82
	France	18.29	20.16	8.76	24.28	21.28	19.65	13.43	22.21	31.21	24.78	13.13	11.65	14.01
	Others	156.10	172.06	76.64	265.65	252.38	232.84	166.63	218.98	304.96	245.15	106.82	92.56	110.32
	Total	278.43	308.96	148.20	417.08	390.25	381.64	235.00	381.89	515.66	387.35	182.96	189.02	204.60

Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂)

		Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
Cumulative volume of CER issued UNEP-Risoe (Mt)		1,353	1,362	1,369	1,388	1,400	1,409	1,419	1,428	1,433	1,440	1,451	1,457	1,466
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	757.0	757.0	785.1	801.5	802.4	803.5	803.7	803.8	809.6	816.1	824	824.1	824
	Track 2 (Mt)	24.4	24.6	24.7	25.1	26.7	25.4	25.4	25.4	25.4	25.4	25	25.4	25.4

Sources: UNEP-Risoe, CDC Climat Research

Secondary market - Prices (€/t) and volumes: EUA, CER (ktCO₂)

			Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
ICE Futures Europe	Daily spot	Price EUA phase 3	4.25	4.22	4.41	5.22	4.91	4.53	4.79	4.98	6.51	6.11	5.22	5.11	5.52
		Volume EUA phase 3	38,427	24,076	5,564	14,672	10,483	7,136	14,965	14,405	21,075	35,324	49,429	19,271	20,937
		Price CER	0.44	0.53	0.62	0.65	0.56	0.42	0.36	0.39	0.36	0.19	0.17	0.12	0.14
		Volume CER	112	0	57	170	0	47	1,204	80	375	1,028	2,998	745	167
	Dec. 14	Price EUA	4.46	4.39	4.58	5.38	5.07	4.69	4.92	5.07	6.61	6.19	5.28	5.50	5.62
		Volume EUA	95,104	48,690	74,289	93,620	135,862	163,545	240,590	450,338	527,394	640,679	360,681	469,397	254,497
		Price CER	0.48	0.56	0.62	0.62	0.52	0.41	0.35	0.37	0.36	0.18	0.16	0.23	0.12
		Volume CER	8,891	7,134	6,505	12,753	7,949	16,224	20,287	15,305	13,092	20,681	8,006	15,527	6,058
	Dec. 15	Price EUA	4.67	4.55	4.75	5.59	5.28	4.89	5.10	5.26	6.91	6.41	5.46	5.50	5.80
		Volume EUA	91,861	41,204	20,176	46,207	57,629	55,672	57,784	102,312	116,329	120,993	60,524	467,135	56,911
		Price CER	0.55	0.64	0.70	0.71	0.60	0.48	0.45	0.48	0.52	0.48	0.41	0.23	0.29
		Volume CER	6,792	2,617	620	3,184	5,586	4,158	10,987	8,766	7,711	11,991	2,012	15,510	3,454
Dec. 16	Price EUA	4.89	4.75	4.96	5.85	5.54	5.12	5.32	5.49	7.26	6.76	5.7	5.50	6.02	
	Volume EUA	27,115	11,902	7,216	26,918	21,449	16,416	17,398	36,721	62,380	101,196	45,597	466,631	33,286	
	Price CER	0.60	0.66	0.72	0.74	0.62	0.50	0.46	0.50	0.55	0.49	0.42	0.33	0.29	
	Volume CER	134	1,134	0	0	0	10	0	689	245	982	164	800	0	

Sources: ICE Futures Europe

Emission-to-cap by EU ETS sector and country: difference between distributed allocations of allowances and verified emissions

	2008	2009	2010	2011	2012
Combustion	-253.1	-113.5	-125.8	-76.9	-40.6
Oil refining	-1.4	7.6	14.3	16.0	24.2
Coking plants	1.5	6.8	2.9	3.1	5.7
Metal ores	4.3	11.0	8.8	8.9	9.8
Steel production	51.6	89.3	71.4	72.8	74.0
Cement	20.9	61.4	61.0	62.8	74.1
Glass	2.5	6.1	5.5	5.4	6.4
Ceramic products	5.3	10.0	10.2	9.6	10.4
Paper	6.9	11.3	10.0	11.1	12.9
Other activities	0.2	4.3	1.3	-0.7	6.2
Total (Mt)	-161.3	94.2	59.8	112.1	183.2

Source: CTL

	2008	2009	2010	2011	2012
Germany	-84.0	-36.6	-54.4	-49.5	-27.8
United Kingdom	-50.8	-15.0	-16.8	2.5	-2.2
Italy	-8.5	24.1	8.5	5.3	12.8
Poland	-3.1	10.8	5.9	4.2	16.1
Spain	-9.6	13.7	29.5	18.4	17.4
France	5.5	17.5	23.4	33.9	35.8
Czech Republic	5.2	12.2	10.6	12.2	17.1
The Netherlands	-6.8	2.8	0.1	8.9	10.6
Romania	7.7	24.9	27.7	23.6	26.9
Others	-17.0	39.8	25.3	52.7	76.6
Total (Mt)	-161.3	94.2	59.8	112.1	183.2

Source: CTL