

The EU ETS' market stability reserve: a marginal long-term structural reform

In the debate on the reform of the EU Emissions Trading Scheme (EU ETS), attention now seems to be devoted to the analysis of the market stability reserve (MSR). This measure, proposed by the European Commission in January 2014 as a part of its communication on the 2030 climate and energy package, should be implemented from the next compliance period (2021-2028). While initial discussions were begun in March and April in the European Parliament and Council, what will be the exact role of this structural reform? Will this reserve be the panacea for the long-term ills of the EU ETS?

According to the proposal, the mechanism would reduce the surplus of allowances, growing since 2008, and improve the system's resilience to external shocks by automatically adjusting the supply of allowances to be auctioned. The operation of this MSR is established according to predefined rules that leave no discretion to either the Commission or the Member States. Thus, the supply of allowances "in circulation"¹ would be established each year between two thresholds:

- When the amount of allowances "in circulation" is greater than 833 Mt, 12% of this amount is removed from the auction volume - provided that the amount withdrawn remains above 100 Mt - and placed in the reserve.
- When the amount of allowances "in circulation" is less than 400 Mt, 100 Mt will be removed from the reserve and added to the auction volume.

With the aim of restoring the long-term credibility of the EU ETS, we understand how this measure will mechanically absorb the surplus of allowances, predicted to be over 2 billion in 2020: the MSR will reduce supply each year by an estimated 200 Mt will 2028, thus diminishing the surplus to a minimum volume of 500 Mt according to the impact assessment published by the Commission.

However, this proposal remains imprecise about the role the MSR will play in the management of changes in demand for allowances resulting from the interaction with other climate and energy policies. In this respect, the framework of 2030 climate and energy policies provides two other provisions aimed upstream to prevent or minimize the negative effects of the interaction between different objectives and instruments: on one hand, a new system of governance regarding climate and energy policies which will be based on communication with the Commission about national energy plans; and on the other hand, a systematic monitoring of key indicators to assess progress and suggest possible accompanying measures. In the 2020 climate and energy package, other provisions, such as the revision of the Energy Efficiency Directive or this of the support system for renewable energy sources framed by the new guidelines on State aids adopted on 9 April 2014, will also have an impact on the interaction between energy policy and the EU ETS by 2030.

Thus, assessing the proposed reserve without considering these other provisions will not evaluate its true role. Within such a framework of 2030 climate-energy policies, the MSR is ultimately an instrument of adjustment that is placed downstream ("end-of-pipe") after other climate-energy policies. Also, the coordination of the EU ETS with other policies should be discussed upstream in the definition of objectives and instruments deployed at the European and national level.

Therefore, let's not be mistaken: if the EU ETS should be considered as the EU's central climate policy instrument in 2030, the debate on the legislative proposal should not be free to consider other provisions to ensure greater consistency of climate and energy package. For two reasons: firstly, if the objective of the MSR is to absorb the current surplus, its role is only temporary since the annual amount of allowances "in circulation" should be between 400-800 Mt by 2030; secondly, if the consistency of policies sufficiently limit their potential overlap with the EU ETS' CO₂ objective upstream and, in the absence of unanticipated external shocks, the role of the reserve will remain marginal. In fact, the impact of this measure on the carbon price will likely be limited in the long-term; the price signal is more likely to emerge from the long-term reduction ambition.

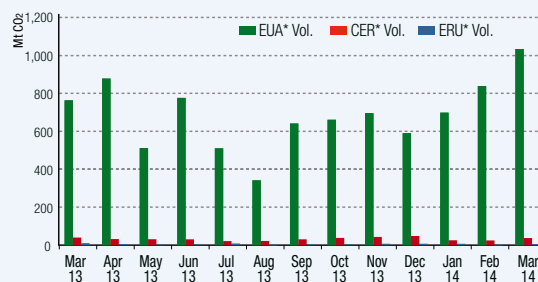
Zuheir Desai, Emilie Alberola et Benoît Leguet - CDC Climat Recherche

1. That is to say, the difference between (i) the sum of free allocation, auctioned allowances and Kyoto credits since 2008 and (ii) the sum of verified emissions since 2008 and the reserved quota for new entrants.

Key points

- **Upsurge in volumes and fall in prices:** Nearly 1.1 billion EUA's were traded, i.e +23%, whereas the average EUA spot price fell by 6% in March 2014.
- **2030 climate and energy package:** The EU Council will take stock of progress made at its next meeting in June 2014, based on consultations with Member States.
- **International credits:** The EU Commission should approve all international credit entitlements tables before the end of April for the first compliance of the EU ETS in phase 3.

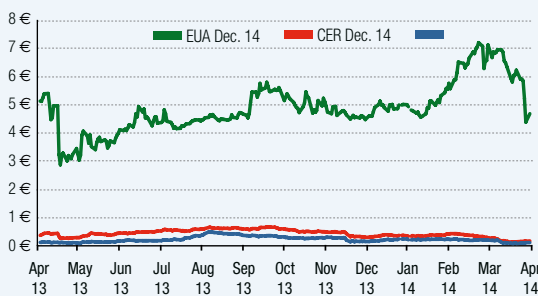
Trading volumes: EUA +23.2%, CER +50.8%, ERU +73.2%



* Spot & futures, exchanges & OTC cleared

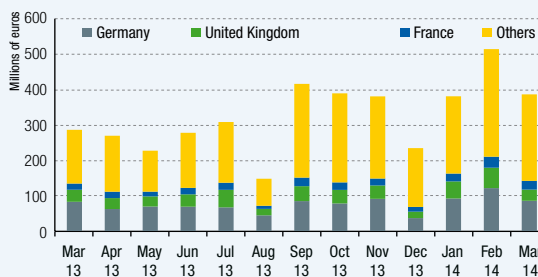
Source: CDC Climat Research calculation, based on data from EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

Price of the Dec. 14 contract: EUA -6.5%



Source: CDC Climat Research, ICE Futures Europe

Income from Phase 3 auctions: 387 M€ in March (-25%)



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

Energy

Primary energy prices and electricity prices

		Mar. 2014	
Coal	API # 2 CIF ARA (First month in USD/t)	74.9 ▼	
Natural gas	NBP (spot in €/MWh)	23.2 ▼	
	TTF (spot in €/MWh)	22.8 ▼	
Crude oil	Brent (First month in USD/b)	107.7 ▼	
Electricity	Germany (€/MWh)	Spot	32.8 ▼
		Calendar	35.5 ▼
	United Kingdom (€/MWh)	Spot	53.3 ▼
		Next summer	61.2 ▼
		Next winter	68.7 ▼

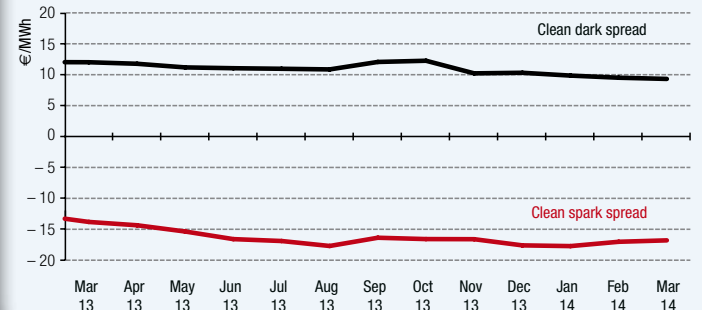
Sources: CDC Climat Research, Thomson Reuters

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*	-15.0	-16.8	8.4	9.3	27.3	30.1
United Kingdom*	9.9	9.3	28.3	34.3	27.6	28.5

* 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

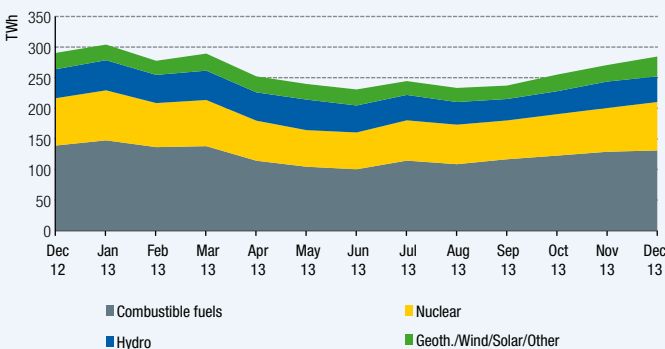
The average monthly price of Brent crude dropped by 1% to \$107.7/b remaining unconcerned by tensions in Crimea because of low Chinese demand and increased Iraqi production. Warmer weather, a well-supplied market and healthy storage stocks ensured that gas prices fell: NBP prices fell by 4.7% to €23.2/MWh while TTF spot prices fell by 4.5% to €22.8/MWh. A relatively mild winter has left Europe with high coal stocks depressing coal prices. The combination of mild weather and increased renewable power supply continued to drive electricity prices downwards as well: German spot prices fell 5.8%, calendar 2015 prices fell by 2.7%, British spot prices were 2.4% down on the spot market and around 1% down on both summer and winter 2015 contracts. As a result, German clean dark prices fell on both the spot and the future market, and clean spark prices rose. In the UK clean dark and spark prices increased on the spot market, but clean dark prices fell on the forward market while clean spark prices increased. The theoretical carbon price that would make switching to natural gas profitable was calculated at around €27-30/tCO₂.

Production

Electricity generation (TWh)

EU 20 (in TWh)	Dec. 13	Jan.- Sep. 13	Year-on-Year (% change)
Production	284.8	3,121.8	-1.5%
of which - Combustible fuels	131.3	1,466.2	-5.9%
- Nuclear	79.1	827.0	-0.2%
- Hydro	42.0	520.0	2.3%
- Geoth./Wind/Solar/Other	32.5	308.6	12.3%

* Gas, coal, oil.

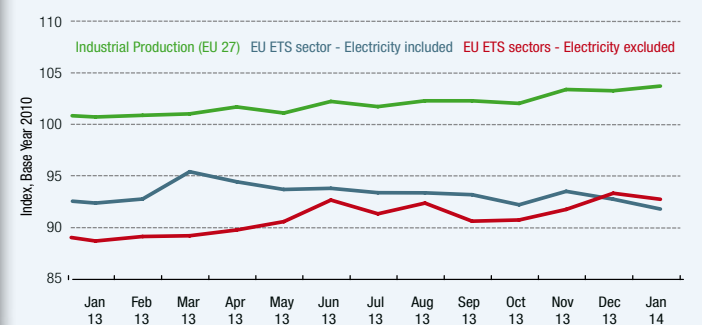


Source: CDC Climat Research, from IEA data

Production indices (Index base year 2010)

EU 27	Jan. 14	Last month (pts)	Year-on-Year (pts)
Indust. Prod (excl. construction)	103.7	0.5	1.8
EU ETS sectors production* (incl. electricity)	91.8	-0.9	-1.6
EU ETS sectors production* (excl. electricity)	92.8	-0.6	1.9
Electricity, gas and heating	91.4	-1.1	-3.4
Cement	81.2	0.0	3.0
Metallurgy	100.6	-1.2	2.4
Oil refinery	94.1	0.9	-0.4

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

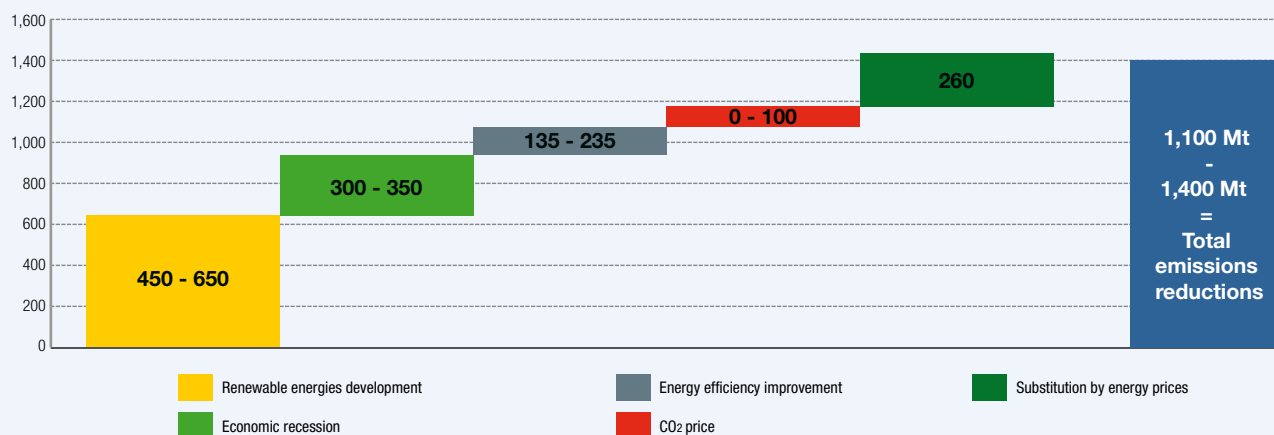


Source: CDC Climat Research from Eurostat data

Figures released in early March indicated that overall EU industrial output rose in January 2014 increasing by 0.1% after a corresponding fall of 0.7% in December. However, the Eurozone Purchasing Managers Index (PMI) fell slightly to 53.1 in March compared to 53.3 in February owing to a slowdown in Germany. The EU-27 business climate index increased further to 0.39 in March. Our EU ETS sector production index fell by 0.9 point in January due to a decrease of 1.1 point in electricity production. The cumulative electricity generation for EU-27 between January and December 2013 was 3 121 TWh, which represents a 1.5% decrease over the same period last year. This decrease in cumulative electricity generation was accompanied by an increase of renewable energy (+12.3%) and hydroelectric energy (+2.3%) and a decline in the use of fossil fuels (-5.9%) and nuclear energy (-0.2%).

Coordination with the 20-20-20 policies

CO₂ abatements drivers in the EU ETS from 2005 - 2011: the impact of the economic recession and energy policies



On March 4th, the EU Transport, Telecommunications and Energy Council held a public policy debate on the Commission's communication on energy prices and costs in Europe. On 20-21 March the EU Council underlined the important link between the EU 2020 strategy, industrial competitiveness and climate and energy policies and stated that a final decision on the 2030 framework will be taken no later than October 2014. The EU Commission has adopted new rules on public support for projects in the field of environmental protection and energy. The guidelines will support Member States in reaching their 2020 climate targets, while addressing the market distortions that may result from subsidies granted to renewable energy sources. To this end, the guidelines promote a gradual move to market-based support for renewable energy. One of the main changes related to renewable energy is the removal of the distinction between mature technology (1 to 3% of the EU's electricity production) and non-mature technology. The public consultation on energy efficiency will end on April 28th. In July 2014, the EU Commission is expected to release an assessment report on the progress made to achieve the 2020 energy efficiency target.

Institutional environment

Phase 3 supply balance table

	2013	2014*
Auctions (MtCO₂)	804	218*
Free allocation (MtCO₂)	777	499

*till March 2014

2013 Free allocation status table

EU Member State	Number of allowances according to the NAT Decision (MtCO ₂)	Number of allowances allocated (MtCO ₂)
France	84	82
Germany	169	169
United Kingdom	66	66
Others	529	460
TOTAL	848	777

CER and ERU supply

	March 14	Last month change
Number of CDM projects	11,123	+12
<i>of which - registered</i>	7,472	+24
<i>with - CER issued</i>	2,572	+14
Cumulative volume of CER issued (Mt)	1,440	+6
CERs available until 2015, EU ETS eligible – CDC Climat Research estimate (Mt)*	2,060	0
Number of JI projects	788	0
<i>of which - registered</i>	604	0
Cumulative volume of ERU issued (Mt)	841.5	+6
<i>via - Track 1</i>	816.1	6
<i>via - Track 2</i>	25.4	0

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

On March 19th, the ENVI Committee in the Parliament had its first exchange of views on the structural reform proposal: the Market Stability Reserve (MSR). Although the ENVI Committee rejected the compromise reached during the trilogue negotiations on inclusion of internal flights in the EU ETS and the exclusion of external flights of the EU, the EU Parliament voted the proposal to exclude external flights of the EU before the next assembly of the ICAO in plenary on 3rd April 2014. At the end of March, the EU Commission approved the international credit entitlements (ICE) tables for 22 EU Member States. The ICE tables contain entitlements for each installation and aircraft operator calculated by Member States in accordance with the Regulation on international credit entitlements. The exchange of credits will be possible as soon as the international entitlement tables for the relevant Member State is approved and uploaded in the Union registry.

Carbon markets dashboard

Primary market - EUA auctions in Phase 3

		Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
Common Auction Platform + United Kingdom & Germany	Price (€/t)	4.06	3.85	3.40	4.23	4.16	4.40	5.19	4.83	4.51	4.62	5.00	6.45	6.35
	Volume (Mt)	70.61	70.19	66.45	65.89	76.65	33.65	80.33	80.62	84.53	50.90	76.31	80.33	60.98
Auction Revenues (M€)	Germany	82.86	62.31	69.46	68.98	67.09	44.50	84.82	78.19	91.29	36.66	92.28	121.62	85.73
	United Kingdom	34.23	31.05	28.69	35.06	49.65	18.30	42.33	38.40	37.87	18.27	48.43	57.88	31.69
	France	17.50	18.14	13.58	18.29	20.16	8.76	24.28	21.28	19.65	13.43	22.21	31.21	24.78
	Others	152.26	158.58	116.04	156.10	172.06	76.64	265.65	252.38	232.84	166.63	218.98	304.96	245.15
	Total	286.86	270.07	227.66	278.43	308.96	148.20	417.08	390.25	381.64	235.00	381.89	515.66	387.35

Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂)

		Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
Cumulative volume of CER issued UNEP-Risoe (Mt)		1,271	1,308	1,335	1,353	1,362	1,369	1,388	1,400	1,409	1,419	1,428	1,433	1,440
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	651.3	651.3	714.5	757.0	757.0	785.1	801.5	802.4	803.5	803.7	803.8	809.6	816.1
	Track 2 (Mt)	22.9	22.9	23.9	24.4	24.6	24.7	25.1	26.7	25.4	25.4	25.4	25.4	25.4

Sources: UNEP-Risoe, CDC Climat Research

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

			Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
ICE Futures Europe	Daily spot	Price EUA phase 3	4.10	3.88	3.51	4.25	4.22	4.41	5.22	4.91	4.53	4.79	4.98	6.51	6.11
		Volume EUA phase 3	9,452	85,674	14,731	38,427	24,076	5,564	14,672	10,483	7,136	14,965	14,405	21,075	35,324
		Price CER	0.17	0.09	0.39	0.44	0.53	0.62	0.65	0.56	0.42	0.36	0.39	0.36	0.19
		Volume CER	1,541	1,901	0	112	0	57	170	0	47	1,204	80	375	1,028
	Dec. 14	Price EUA	4.37	4.11	3.72	4.46	4.39	4.58	5.38	5.07	4.69	4.92	5.07	6.61	6.19
		Volume EUA	79,675	112,934	59,334	95,104	48,690	74,289	93,620	135,862	163,545	240,590	450,338	527,394	640,679
		Price CER	0.37	0.35	0.39	0.48	0.56	0.62	0.62	0.52	0.41	0.35	0.37	0.36	0.18
		Volume CER	2,089	3,885	1,949	8,891	7,134	6,505	12,753	7,949	16,224	20,287	15,305	13,092	20,681
	Dec. 15	Price EUA	4.55	4.28	3.88	4.67	4.55	4.75	5.59	5.28	4.89	5.10	5.26	6.91	6.41
		Volume EUA	49,718	61,556	34,689	91,861	41,204	20,176	46,207	57,629	55,672	57,784	102,312	116,329	120,993
		Price CER	0.41	0.38	0.46	0.55	0.64	0.70	0.71	0.60	0.48	0.45	0.48	0.52	0.48
		Volume CER	710	1,706	4,087	6,792	2,617	620	3,184	5,586	4,158	10,987	8,766	7,711	11,991
Dec. 16	Price EUA	4.80	4.47	4.04	4.89	4.75	4.96	5.85	5.54	5.12	5.32	5.49	7.26	6.76	
	Volume EUA	22,885	31,151	18,256	27,115	11,902	7,216	26,918	21,449	16,416	17,398	36,721	62,380	101,196	
	Price CER	0.54	0.47	0.51	0.60	0.66	0.72	0.74	0.62	0.50	0.46	0.50	0.55	0.49	
	Volume CER	0	0	0	134	1,134	0	0	0	10	0	689	245	982	

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