

## Will anybody dare resuscitating the EU ETS?

It's not necessarily back to square one. After ten years in operation, however, evidence is mounting that the EU ETS will need a major overhaul in order to deliver what has been packaged in the fondling phrase "a cornerstone of the European Union's policy to combat climate change and its key tool for reducing industrial greenhouse gas emissions cost-effectively".

The current problems with EU ETS have become evident in three basic imbalances, which in retrospect result from severe design flaws. The first imbalance may be coined vertical, since it addresses the aggregate oversupply of the carbon market, which currently amounts to more than one year's emissions of all installations. This vertical imbalance could further increase to a volume equivalent to two years verified emissions by 2020. This results from verified emissions that both in 2013 and 2014 were already significantly below the target path and reflects the outlook until 2020 because of the ongoing economic crisis. The second imbalance may be coined horizontal, since it reveals distortions among installations because of different dynamics in their activity levels, which are not echoed, however, within a broad range of output fluctuations in changes of free allocations. This is creating cost distortions that are in particular relevant for energy intensive industries. A third set of imbalances originates from differences among sectors as to their exposure to carbon costs and in the sequel to the risk of carbon leakage.

Since these imbalances are intimately tied, any piecemeal reform strategy is prone to fail. This can be observed in the current political controversies about the Market Stability Reserve (MSR), which seem not to be able to separate the issue of the huge historical surplus from the issue of upcoming market imbalances and the corresponding different feedbacks on installations. Most probably, therefore, whatever compromise on MSR is agreed upon, there might be no major change on the stringency of the carbon market and the resulting carbon price over a time range up to 2030.

In contrast the piecemeal efforts the outline of a comprehensive structural reform of the EU ETS emerges as a consequential response to the currently observed fundamental imbalances.

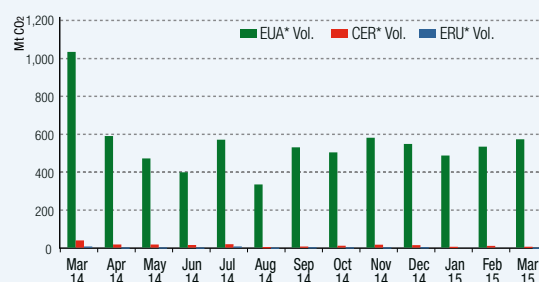
- Firstly, the vertical imbalance of the overall market is dealt with a one-time intervention for the historical surplus and afterwards with a rule-based ongoing intervention via a flexible auctioning volume that is tied to a Market Stability Reserve.
- Secondly, the horizontal imbalances among installations are handled by three linked dynamic elements: discrete trading periods are replaced by a long-term target path - as the proposed 2.2 percent annual reduction after 2020 - in order to give installations a long-term perspective about the reduction requirements; benchmarks for the allocation of free allowances are more often revised; finally installations obtain free allowances based on these updated benchmarks and recent activity levels, thus avoiding the cost distortions resulting from the current rigid allocation mechanism. This flexibility of free allowances is compensated ex post by adjusting the auctioning volume to the long-term target path. Furthermore the administrative burden can be reduced by tying the allocation of flexible free allowances to the auditing procedures.
- Thirdly, sectoral differences can be addressed in particular by a more targeted allocation of free allowances instead of the current uniform treatment once a sector (after all 164 out of 175) qualifies for the Carbon Leakage List. Such a targeted allocation can be tied to the sector-specific exposure to export and import competition, to the extent of indirect emissions via electricity consumption and the amount of currently unavoidable emissions in industrial processes as steel and cement.

Why could EU ETS not undergo such a live-cell therapy that offers an evolution to a framework that needs no discrete trading periods, no cross sectoral correction factor, no carbon leakage list and thus becomes more transparent and effective? The answer might very well lie outside the realm of EU ETS and reflect once more the disintegration of EU policy interests.

## Key points

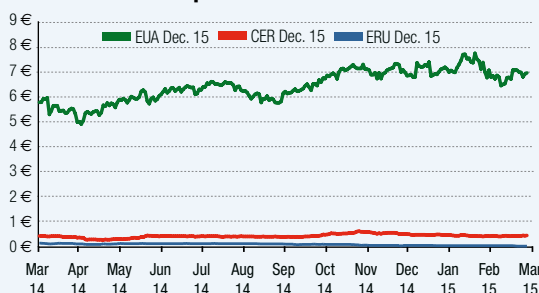
- **EU ETS – MSR timetable:** The first trilogue meeting between EU institutions took place on 30<sup>th</sup> March. The second is scheduled on 5<sup>th</sup> May. The Committee of Permanent Representatives of the Member States approved an implementation of the MSR in 2021.
- **EU's INDC:** On 6<sup>th</sup> March, the EU Environment Council approved the EU's intended nationally determined contribution to achieve at least 40% domestic reduction in GHG emissions by 2030 compared to 1990 levels.
- **Consultations:** On 26<sup>th</sup> March, the EU Commission launched two parallel consultations running until 18<sup>th</sup> June on the development of 2030 climate and energy policies in the sectors not covered by the EU ETS.

### Trading volumes: EUA +7.30%, CER -49.4%



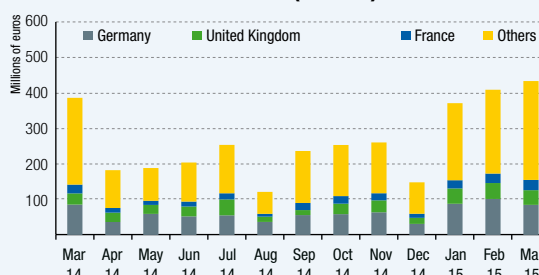
Source: CDC Climat Research calculation, based on data from EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

### Dec 15 contract price: EUA -6.76%



Source: CDC Climat Research, ICE Futures Europe

### Monthly proceeds from Phase 3 auctions: 434.8 M€ in March 2015 (+5.9%)



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

# Energy

## Primary energy prices and electricity prices

			Mar. 2015
Coal	API # 2 CIF ARA (First month in USD/t)		61.4 ▲
Natural gas	NBP (spot in €/MWh)		22.3 ▼
	TTF (spot in €/MWh)		21.9 ▼
Crude oil	Brent (First month in USD/b)		56.9 ▼
Electricity	Germany (€/MWh)	Spot	33.7 ▼
		Calendar	32.3 ▼
	United Kingdom (€/MWh)	Spot	56.2 ▼
		Next summer	59.5 ▼
		Next winter	64.7 ▼

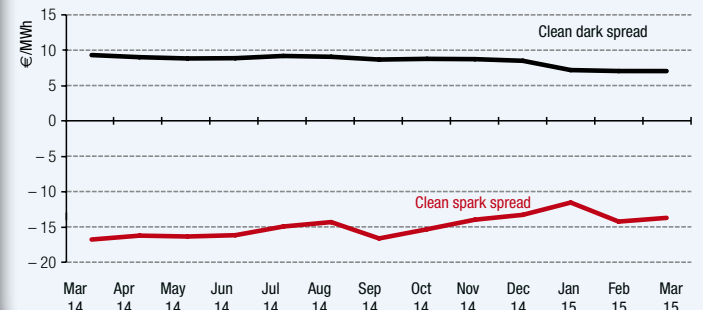
Sources: CDC Climat Research, Thomson Reuters

## Clean dark, clean spark spreads and switching price

	Clean spark (€/MWh)		Clean dark (€/MWh)		Switching Price (€/tCO <sub>2</sub> )	
	spot	futures	spot	futures	spot	futures
Germany*	-12.5	-13.7	7.8	7.0	41.3	42.1
United Kingdom*	8.2	13.9	29.6	33.6	42.5	39.8

\* Germany, 2016 calendar contract

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



Sources: CDC Climat Research, Thomson Reuters

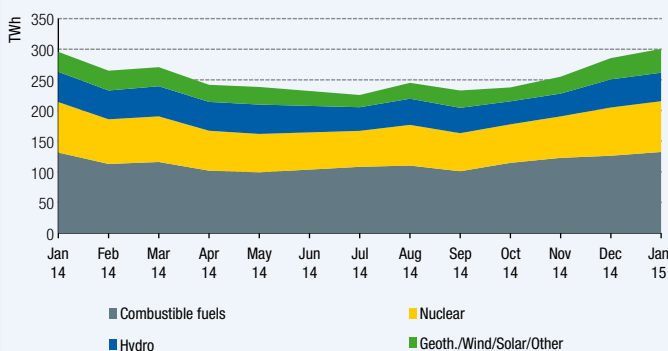
The Brent was down again in March, reaching a 56.9 \$/bbl average price after the rebound from the previous month. Chinese and European demand remains low while the dollar strengthens. Maintaining US and OPEC productions, as well as the prospect of an Iranian agreement accentuate the supply surplus. Uncertainties related to the conflicts in Yemen and Iraq, however, could reverse this trend. Coal prices have remained constant at 61.4 \$/t; the downward trend early in the period was offset by a technical rebound. Spot gas prices NBP and TTF decreased slightly to 22.3 €/MWh and 21.9 €/MWh; demand fundamentals remain low despite high volatility associated with decreases in temperature, while the Russian supply has been bullish. German short maturities plummeted to 33.7 €/MWh while the contract for delivery in December 2016 was traded at 32.3 €/MWh on average. Finally, the German Clean Dark Spread largely decreased in spot markets to 7.78 €/MWh, and remained constant in future markets to 7.04 €/MWh, while the Clean Spark Spread decreased in the spot and slightly increased in the future markets. The theoretical CO<sub>2</sub> «switch» price was calculated to 41.3 €/tCO<sub>2</sub> in the German spot power market and 42.5 €/tCO<sub>2</sub> in the British spot power market.

# Production

## Electricity generation (TWh)

EU 20 (in TWh)	Jan. 15	Cumulative from Jan. 15	Year-on-Year (% change)
Production	299.6	299.6	13.4 %
of which - Combustible fuels	131.9	131.9	17.3 %
- Nuclear	82.7	82.7	13.7 %
- Hydro	46.3	46.3	-1.1 %
- Geoth./Wind/Solar/Other	38.7	38.7	20.3 %

\* Gas, coal, oil.

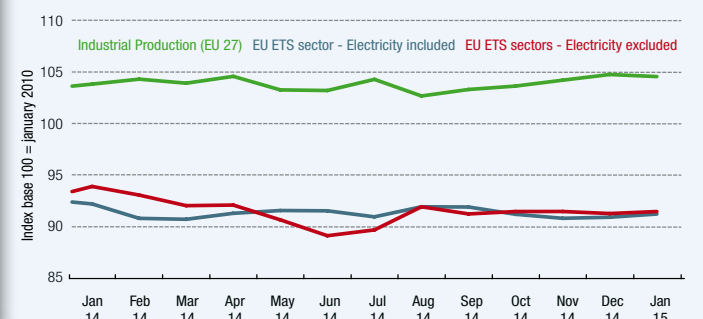


Sources: CDC Climat Research, from IEA data

## Production indices (Index base year 2010)

EU 27	Jan. 15	Last month (pts)	Year-on-Year (pts)
Indust. Prod (excl. construction)	104.6	-0.2	0.7
EU ETS sectors production* (incl. electricity)	91.3	0.3	-1.0
EU ETS sectors production* (excl. electricity)	91.5	0.2	-2.4
Electricity, gas and heating	91.1	0.4	-0.2
Cement	77.0	0.5	-7.5
Metallurgy	99.8	-7.4	-11.2
Oil refinery	95.2	0.2	2.9

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

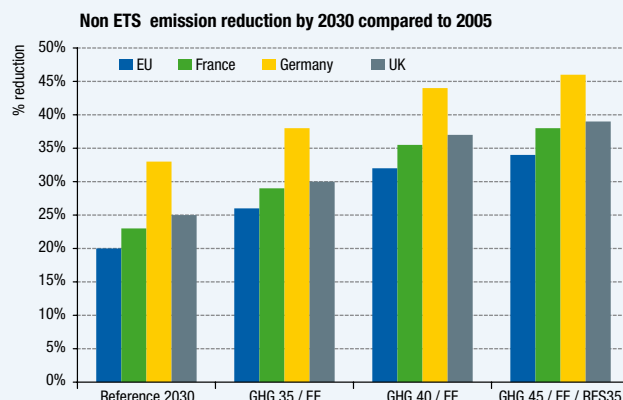
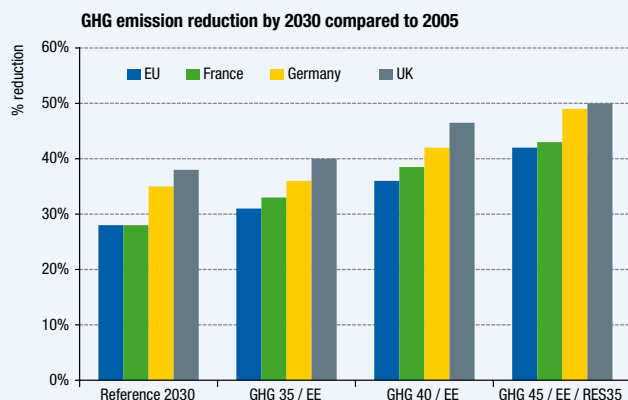


Sources: CDC Climat Research from Eurostat data

Industrial production in the EU-27 countries decreased by 0.2% in January 2015 compared to the previous month and by 1.5% compared to January 2014. The 0.2% decrease in monthly industrial is due to production of durable consumer goods falling by 2.2% and intermediate goods by 0.5%. The largest decreases in industrial production were registered in Croatia (-4.0%), Latvia (-3.1%), Finland (-2.5%) and Lithuania (-2.3%), and the highest increases in Malta (+6.1%), Hungary (+4.3%) and Bulgaria (+2.0%). Our production index for EU ETS sectors (including electricity) slightly increased to 91.3 pts, while the index excluding electricity rose to 91.5 pts. Power generation in the 20 EU countries amounted to 299.6 TWh in January 2015, increasing 5.3% compared to December 2014 and up 13.4% compared to January 2014. Compared to the year 2014, an increase in the cumulative hydraulic generation was observed (+13.4%), and in the cumulative generation of renewable energy (+20.3%), while cumulative fossil fuel generation increased by 17.3%.

# Coordination of CO<sub>2</sub>, EE and RES policies

## The EU 2030 emission reduction target: impact on Member States



Note: Reference refers to the scenario with no additional climate and energy policies on the trajectory of the 2020 objectives; GHG 35, 40 et 45 refer to the scenario with a 35%, 40% and 45%, GHG target, RES 35 refers to the scenario with a 35% EU level renewable energy target in the final consumption.

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

On 6<sup>th</sup> March, the EU Environment Council approved the EU's intended nationally determined contribution (INDC) to achieve at least 40% domestic reduction in greenhouse gas emissions compared to 1990 levels by 2030. This enforces the agreement by EU Heads of State and Government in October 2014 on the EU 2030 climate and energy framework, in accordance with the requirements for upfront information agreed at the Lima climate conference in December 2014. On 19<sup>th</sup> March, the EU's heads of state and government endorsed plans for an "Energy Union with a forward-looking climate policy". The strategy sets out the steps for EU energy and climate policy for the next five years with five dimensions closely interrelated and mutually reinforcing: energy security, solidarity and trust; a fully integrated European energy market; energy efficiency contributing to moderation of demand; decarbonisation of the economy; and research, innovation and competitiveness. The EU institutions and the Member States will take this strategy forward and the Council will report to the European Council before December 2015. The European Council will continue to give guidance. On 26<sup>th</sup> March, the EU Commission launched two parallel consultations running until 18<sup>th</sup> June on the development of 2030 climate and energy policies in the sectors not covered by the EU ETS : 1/ Consultation on the preparation of a legislative proposal for the Effort Sharing Decision in a 2030 perspective, and 2/ Consultation on the integration of agriculture, forestry and other land use into the 2030 EU climate and energy policy framework.

## Institutional environment

### Phase 3 supply balance table

	2013	2014	2015*	2016*	2017*	2018*	2019*	2020*
<b>Auctions (MtCO<sub>2</sub>)</b>	<b>804</b>	<b>532</b>	<b>675</b>	<b>779</b>	<b>985</b>	<b>992</b>	<b>1,302</b>	<b>1,633</b>
<b>Free allocation (MtCO<sub>2</sub>)</b>	<b>843</b>	<b>767</b>	<b>813</b>	<b>789</b>	<b>765</b>	<b>741</b>	<b>717</b>	<b>693</b>
<b>Total</b>	<b>1,647</b>	<b>1,299</b>	<b>1,488</b>	<b>1,568</b>	<b>1,750</b>	<b>1,733</b>	<b>2,019</b>	<b>2,326</b>

\* Estimations

### Free allocation status table

EU Member State	2013	2014	2015*
France	82	81	73
Germany	169	163	159
United Kingdom	66	64	56
Others	526	459	246
<b>TOTAL</b>	<b>843</b>	<b>767</b>	<b>535</b>

\* Until 31<sup>st</sup> March

### CER and ERU supply

	March 15	Last month change
<b>Number of CDM projects</b>	<b>12,284</b>	<b>+9.0</b>
<i>of which - registered</i>	7,622	+24.0
<i>with - CER issued</i>	2,754	+8.0
<b>Cumulative volume of CER issued (Mt)</b>	<b>1,545</b>	<b>+3.9</b>
<b>Number of JI projects</b>	<b>788</b>	<b>0.0</b>
<i>of which - registered</i>	604	0.0
<b>Cumulative volume of ERU issued (Mt)</b>	<b>863.5</b>	<b>0.0</b>
<i>via - Track 1</i>	838.1	0.0
<i>via - Track 2</i>	25.4	0.0

On 4<sup>th</sup> March, the EU Commission published data on the amount of free allowances handed out to industry and heat production for 2015, which amounts to 500.5 million EU allowances. According to Member States' National Allocation Tables, an additional 288.79 million EUA could still be handed out for free in 2015. The following Member States have not yet allocated any free allowances although they have planned to do so: Cyprus, Estonia, Finland, Ireland, Italy, Poland, Portugal, and Spain. On 24<sup>th</sup> March, in the European Parliament's ITRE Committee, Commissioner Arias Cañete indicated that the first step will be the adoption of the MSR, followed swiftly by a revision of the EU ETS that will include a 43% target for ETS sectors compared to 2005 levels. He pointed out that free allowances would continue post-2020 to address the risk of carbon leakage and that an appropriate level of protection would have to be assured. However as the amount of free allowances is limited, a more efficient and targeted use of allowances will be needed. On 25<sup>th</sup> March, the Committee of Permanent Representatives of the Member States (COREPER) on the MSR proposal approved a mandate for the Latvian Presidency to start trilogue negotiations with the EU Parliament and the EU Commission. The first trilogue meeting between these EU institutions took place on 30<sup>th</sup> March. The text approved by the COREPER refers to a start date of the MSR on 1<sup>st</sup> January 2021. The European Parliament's negotiating position supports an earlier introduction of the MSR (to operate by 31<sup>st</sup> December 2018) and supports moving the backloaded allowances, as well as the unallocated allowances into the market stability reserve. It also supports setting aside 300 million allowances to develop breakthrough industrial innovation projects. The second trilogue meeting is scheduled for Tuesday, 5<sup>th</sup> of May.

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

Sources: CDC Climat, UNEP-DTU

# Carbon markets dashboard

## Primary market - EUA auctions in Phase 3

		Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Common Auction Platform + United Kingdom & Germany	Price (€/t)	6.35	7.35	5.03	5.54	5.91	6.23	5.96	5.99	6.78	6.74	6.89	7.20	6.72
	Volume (Mt)	60.98	35.22	37.72	37.02	43.28	19.52	39.79	42.05	38.56	22.04	54.06	57.00	64.67
Auction Revenues (M€)	Germany	85.73	36.53	59.46	52.45	55.37	36.75	56.07	58.71	63.97	31.17	88.04	101.65	84.94
	United Kingdom	31.69	26.48	25.35	27.82	44.97	14.93	14.13	29.65	33.78	17.15	43.38	44.97	41.54
	France	24.78	13.13	11.65	14.01	17.35	7.90	20.14	21.35	20.03	11.51	23.14	26.76	28.96
	Others	245.15	106.82	92.56	110.32	136.70	62.03	146.78	144.45	143.52	88.78	217.71	236.84	279.33
	Total	387.35	182.96	189.02	204.60	254.39	121.61	237.13	254.15	261.30	148.61	372.27	410.23	434.77

Sources: EEX, ICE Futures Europe

## Primary market - CER and ERU issued (MtCO<sub>2</sub>)

		Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Cumulative volume of CER issued UNEP-DTU (Mt)		1,440	1,451	1,457	1,466	1,472	1,480	1,491	1,504	1,512	1,512	1,525.7	1,540.8	1,544.7
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	816.1	824	824.1	824	824.1	824.4	824.4	824.4	824.5	824.5	838.1	838.1	838.1
	Track 2 (Mt)	25.4	25	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4

Sources: UNEP-DTU, CDC Climat Research

## Secondary market - Prices (€/t) and volumes: EUA, CER (ktCO<sub>2</sub>)

		Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
ICE Futures Europe	Daily spot	Price EUA phase 3	6.11	5.22	5.11	5.52	5.96	6.26	6.01	6.09	6.91	6.97	7.27	6.80
		Volume EUA phase 3	35,324	49,429	19,271	20,937	11,897	5,173	17,953	5,530	7,793	10,180	9,324	25,327
		Price CER	0.19	0.17	0.12	0.14	0.16	0.17	0.15	0.13	0.08	0.04	0.46	0.41
		Volume CER	1,028	2,998	745	167	1,530	1	242	255	319	8,622	860	4,436
	Dec.15	Price EUA	6.41	5.46	5.50	5.80	6.16	6.44	6.16	6.21	7.03	7.15	7.06	7.35
		Volume EUA	120,993	60,524	467,135	56,911	114,684	64,504	94,922	119,746	140,392	180,590	356,677	377,226
		Price CER	0.48	0.41	0.23	0.29	0.40	0.40	0.39	0.38	0.52	0.54	0.46	0.42
		Volume CER	11,991	2,012	15,510	3,454	3,951	1,636	1,535	3,644	3,724	2,654	1,863	0
	Dec.16	Price EUA	6.76	5.7	5.50	6.02	6.35	6.62	6.30	6.34	7.17	7.35	7.17	7.47
		Volume EUA	101,196	45,597	466,631	33,286	61,189	28,171	47,533	40,921	40,926	39,009	55,893	46,588
		Price CER	0.49	0.42	0.33	0.29	0.40	0.41	0.39	0.38	0.52	0.54	0.52	0.42
		Volume CER	982	164	800	0	0	10	50	850	500	550	500	0
	Dec.17	Price EUA	6.76	5.7	5.50	6.02	6.35	6.62	6.30	6.34	7.17	7.35	7.34	7.63
		Volume EUA	101,196	45,597	466,631	33,286	61,189	28,171	47,533	40,921	40,926	39,009	15,087	19,340
		Price CER	0.49	0.42	0.33	0.29	0.40	0.41	0.39	0.38	0.52	0.54	0.46	0.42
		Volume CER	982	164	800	0	0	10	50	850	500	550	0	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	2013
Combustion	-253.1	-113.5	-125.8	-76.9	-42.4	-137.8
Oil refining	-1.4	7.6	14.3	16.0	20.2	-36.7
Coking plants	1.5	6.8	2.9	3.1	5.7	-1.5
Metal ores	4.3	11.0	8.8	8.9	9.7	-0.2
Steel production	51.6	89.3	71.4	72.8	73.9	38.5
Cement	20.9	61.4	61.0	62.8	70.3	26.7
Glass	2.5	6.1	5.5	5.4	5.0	-1.2
Ceramic products	5.3	10.0	10.2	9.6	9.2	2.0
Paper	6.9	11.3	10.0	11.1	11.6	4.1
Other activities	0.2	4.3	1.3	-0.7	1.4	-1.0
Total (Mt)	-161.3	94.2	59.8	112.1	164.5	-107.1

Source: CTL

	2008	2009	2010	2011	2012	2013
Germany	-84.0	-36.6	-54.4	-49.5	-28.6	-106.3
United Kingdom	-50.8	-15.0	-16.8	2.5	-2.5	-52.0
Italy	-8.5	24.1	8.5	5.3	12.2	21.5
Poland	-3.1	10.8	5.9	4.2	15.6	-76.4
Spain	-9.6	13.7	29.5	18.4	17.0	31.7
France	5.5	17.5	23.4	33.9	25.2	24.8
Czech Republic	5.2	12.2	10.6	12.2	17.1	-18.3
The Netherlands	-6.8	2.8	0.1	8.9	10.5	-3.0
Romania	7.7	24.9	27.7	23.6	25.8	15.1
Others	-17.0	39.8	25.3	52.7	72.3	55.7
Total (Mt)	-161.3	94.2	59.8	112.1	164.5	-107.1

Source: CTL