

# AUCTIONS BY THE TRANSITIONAL COMMON AUCTION PLATFORM

The world's largest auctioning of emissions allowances

June 2016

## Auctions by the *Transitional Common Auction Platform*June 2016

**Auction platform:** European Energy Exchange (EEX)

Auction dates/reporting period:

**General Allowances:** 

2, 6, 7, 9, 13, 14, 16, 20, 21, 22(PL)<sup>1</sup>, 23, 27, 28, 30 June 2016;

**Aviation Allowances:** 

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Auctioning is the default method of allocating allowances within the EU emissions trading system (EU ETS). Since the start of the *Third trading period* in 2013 over 2 billion allowances allocated under the EU ETS have been auctioned. Auctioning of emission allowances at that scale is unprecedented and delivers valuable experience for auction design in other carbon markets and for other environmental assets.

Auctioning is the most transparent and efficient method of allocating allowances and puts into practice the principle that the polluter should pay.

The auctions are conducted pursuant to the modalities stipulated in the *Auctioning Regulation*. Two auction platforms are in place. The European Energy Exchange (EEX) in Leipzig is the common platform for the large majority of countries participating in the EU ETS. EEX also acts as Germany's auction platform. The second auction platform is ICE Futures Europe (ICE) in London, which acts as the United Kingdom's platform. Poland may appoint an opt-out auction platform but is using for the time being the common auction platform.

The numbers of *General Allowances* to be auctioned by each State on behalf of which they are auctioned are determined on the basis of their historical share of emissions from installations covered by the EU ETS, taking into account the free allocation volumes. Up to 2020 ten per cent are allocated to the least wealthy EU Member States and the remaining two per cent is given as a 'Kyoto bonus' to nine EU Member States which by 2005 had reduced their greenhouse gas emissions by at least 20% of levels in their Kyoto Protocol base year or period.

At least half of auctioning revenues, or the equivalent in financial value, and all of the revenues from auctioning allowances to the aviation sector, should be used by the Member States to combat climate change in Europe or other countries.

For further information: <a href="http://ec.europa.eu/clima/policies/ets/cap/auctioning/index">http://ec.europa.eu/clima/policies/ets/cap/auctioning/index</a> en.htm

<sup>&</sup>lt;sup>1</sup> Auctions conducted by EEX for Poland.

**Editor's note:** This report has been prepared by the Commission on behalf of the following Member States: Austria, Belgium, Bulgaria, Republic of Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden. The report complies with the requirement laid down in the fourth paragraph of Article 10(4) of the *ETS Directive*.

**Methodology:** The report is based on the reports submitted by EEX, on the discussions in regular meetings between the Commission, its advisors and EEX and on any further relevant information available to the Commission. The authors of the report did not actively verify EEX's compliance with the specific rules and provisions applicable under European or national law. EEX has supplied the data used in this report and been consulted before its publication, whereas the *participating Member States* have been consulted on its template.

For reasons of confidentiality and proper enforcement of the applicable rules, the report refers to reporting on the auctions held based on information provided by EEX. Any data not directly related to the auctions is based only on public reports.

**Disclaimer:** The authors have made every effort to ensure that the information provided is complete, correct and precise for the reporting period. Nevertheless, the report is based on limited information available to the authors in a market context where much information has to remain confidential. The authors did not actively verify the information. Therefore, the authors and the Member States on whose behalf this report was drafted deny any responsibility or liability whatsoever for its contents, regardless of the nature of such contents. Any reliance by any person or entity on the information provided in this report is solely at that person's or entity's own risk. Monthly averages provided are weighted by each auction's auction volume, unless otherwise indicated.

**Glossary:** terms and expressions written in *italics* are included in the glossary.

#### **Executive summary**

This report covers the auctioning of emission allowances in the period June 2016. In that period, EEX, in its capacity as the common auction platform, auctioned a total of 44 525 000 general allowances in 13 auctions for the third trading period on behalf of those EU Member States (participating Member States) that participate in the Transitional Common Auction Platform (TCAP). No aviation allowances have been auctioned during this period on behalf of those EU Member States (participating Member States) that participate in the Transitional Common Auction Platform (TCAP). During this period EEX held one auction on behalf of Poland for 4 407 500 general allowances.

All auctions were held successfully, and no irregularities or deviations from the requirements were observed. The table below contains a summary of the information concerning the conducted auctions.

#### The June 2016 auctions at a glance:

	<b>General</b> <b>Allowances</b> June	<b>Aviation Allowances</b> June
General		
Number of auctions	14	N.A.
Total volume auctioned	48 932 500	
Amount raised from the auctions (€)	273 801 625	
Average Auction Clearing Price (€/allowance)	5.60	
Total bid volume	119 140 000	
Average Cover ratio	2.4	
Participation		
Number of eligible bidders	68	
Number of participating bidders <sup>(1)</sup>	29	
Number of successful bidders <sup>(1)</sup>	29	
Average number of bidders per auction	19.2	
Average number of successful bidders per auction	13.2	
Auction data		
Average total volume bid per bidder per auction	445 334	
Average bid size (volume per bid)	121 595	
Average volume won per bidder per auction	279 016	
Average range of bids (€)	2.00	

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month

#### Introduction

All the participating Member States were participating in the auctions as from January 2015.

In accordance with the second subparagraph of Article 30(7) of the *Auctioning Regulation*, pending the procurement, appointment and listing of its opt-out auction platform, Poland contracted EEX to auction its share of allowances to be auctioned. These auctions started on 16 September 2013. Due to the *Back-loading*, no auctions were held for Poland from May to December 2014, the auctions restarted in January 2015.

Accordingly, the present report includes data on the auctions performed by the common auction platform on behalf of the *participating Member States* and Poland.

The Member States of the European Free Trade Association (EFTA) that are Party to the European Economic Area (EEA)<sup>2</sup> have also stated their intention to make use of the *Transitional Common Auction Platform* by aggregating their volumes to those auctioned on behalf of the *participating Member States*. The preparations for this are on-going.

#### 1. Results of the auctions

The total revenues from auctions of *general allowances* accrued to the *participating Member States* and Poland from the start of the *Third trading period* auctions (November 2012) to June 2016 are EUR 9 255 094 680. The total revenues from auctions of *aviation allowances* accrued to the *participating Member States* and Poland from the start of the *Third trading period* auctions (November 2012) to June 2016 are EUR 133 653 920. The revenues per each *participating Member State* in the reporting period as well as cumulative data are provided in Annex 1.

Information on *general allowances*' auctions is provided in section 1.1, and on *aviation allowances* in section 1.2 hereafter. Detailed information on the auctions held in the reporting period May 2016, including results per auction, is provided in Annex 2.

Please note that in all parts of this report monthly averages provided are weighted by each auction's auction volume, unless otherwise indicated.

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<sup>&</sup>lt;sup>2</sup> Iceland, Liechtenstein and Norway.

#### 1.1. General allowances auctions

#### 1.1.1. Clearing prices and participation - general allowances

An overview of the auction results for the *participating Member States* and Poland from June 2015 to June 2016 is provided in Table 1.

**Table 1:** General allowances - main statistics on the results of the auctions per month

Month	Total auction Total bid volume volume		Total revenue (€)	Average Cover ratio <sup>3</sup>	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)
June 2016	48 932 500	119 140 000	273 801 625	2.4	19.2	13.2	5.60
May 2016	30 825 000	56 918 000	181 251 000	1.8	16.8	13.0	5.88
April 2016	44 626 000	93 734 000	254 493 440	2.1	18.8	13.0	5.70
March 2016	51 577 000	117 768 000	251 299 820	2.3	20.7	14.8	4.87
February 2016	48 051 000	106 282 000	249 230 700	2.2	22.7	17.2	5.19
January 2016	30 825 000	74 934 000	200 910 500	2.4	21.6	14.1	6.52
December 2015	23 244 500	64 626 500	192 130 220	2.8	18.9	14.1	8.27
November 2015	40 789 500	130 488 000	346 009 805	3.2	19.6	13.1	8.48
October 2015	37 934 000	116 213 500	316 690 540	3.1	19.7	13.4	8.35
September 2015	40 788 000	126 790 000	328 635 840	3.1	18.7	14.3	8.06
August 2015	17 508 000	65 808 500	141 085 300	3.8	15.4	9.3	8.06
July 2015	40 788 000	114 643 000	315 388 760	2.8	16.5	11.9	7.73
June 2015	37 934 000	117 971 500	281 645 360	3.1	16.8	12.3	7.42
2015 total	413 874 000	1 337 010 500	3 154 940 925	3.2	18.3	13.3	7.62
2014 total	335 052 000	1 796 711 000	1 977 712 120	5.4	17.6	11.9	5.90
2013 total	530 488 000	1 761 639 500	2 349 853 340	3.3	18.4	13.2	4.43

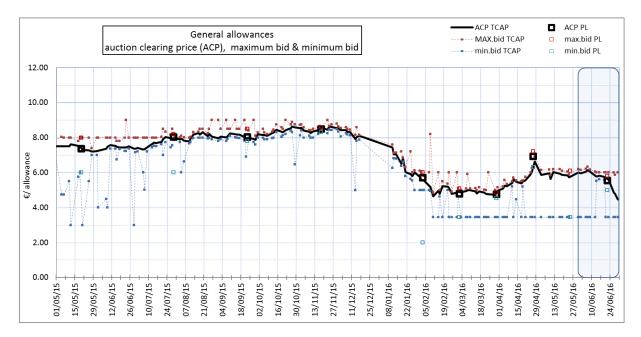
During June 2016, the difference between the Auction Clearing Prices and the mean of the *best-ask* and *best-bid* prices on the EEX *spot secondary market* for *general allowances* at the closure of the auction *bidding window* was on average EUR -0.01, and this difference had a standard deviation of EUR 0.03.

Auctions by the transitional common auction platform June 2016

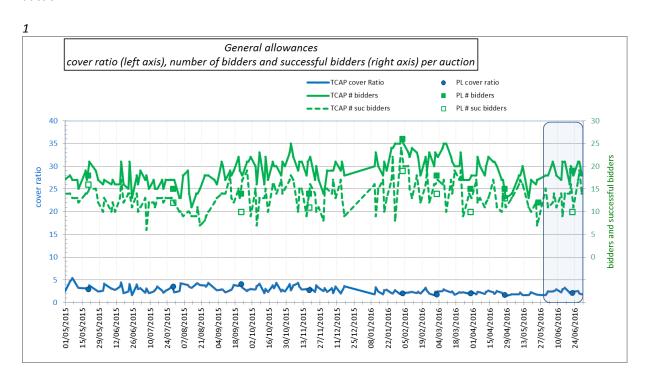
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<sup>&</sup>lt;sup>3</sup> Cover ratio is the ratio between the total bid volume and the auction volume.

**Graph 1:** General allowances - auction clearing price (ACP), maximum bid & minimum bid<sup>4</sup>



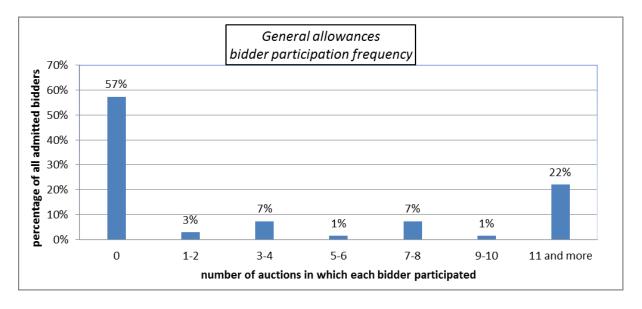
**Graph 2:** General allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction



There were 68 eligible bidders in June 2016. Out of these, 29 different bidders participated in the auctions in June 2016. Graph 3A indicates the participation frequency in June 2016.

<sup>&</sup>lt;sup>4</sup> Auctions on behalf of Poland were held on the following days: 20/5/2015, 29/7/2015, 23/9/2015, 18/11/2015, 3/2/2016, 2/3/2016, 30/3/2016, 27/4/2016, 25/5/2016 and 22/6/2016.

**Graph 3A:** General allowances -bidder participation frequency in June 2016



#### 1.1.2. Bidding behaviour - general allowances

Table 2 provides monthly data on the bids submitted from June 2015 to June 2016. See also Graph 4.

Table 2: General Allowances - monthly statistics on the submitted bids

Month	Nr of auctions	Nr of bidders <sup>(1)</sup>	Total volume of bids	Average total volume bid per bidder per auction <sup>5</sup>	Average total volume bid per bidder per auction over the month <sup>6</sup>	standard deviation of total volume bid per bidder per auction over the month <sup>7</sup>	Total monthly nr of bids	Average nr. of bids per bidder per auction <sup>8</sup>	Average bid size <sup>9</sup>
June 2016	14	29	119 140 000	445 334	442 900	537 011	979	3.7**	121 595
May 2016	9	28	56 918 000	382 049	376 940	435 872	507	3.4**	113 975
April 2016	13	29	93 734 000	384 877	384 156	468 364	850	3.5++	111 049
March 2016	15	35	117 768 000	384 552	379 897	457 186	1147	3.7**	105 729
February 2016	14	30	106 282 000	338 333	334 220	461 502	1104	3.5**	98 299
January 2016	9	32	74 394 000	386 086	383 474	547 998	692	3.6++	110 917
December 2015	8	31	64 626 500	433 690	427 990	543 279	538	3.6**	119 573
November 2015	14	30	130 488 000	483 238	476 234	628 078	923	3.4**	142 930
October 2015	13	32	116 213 500	455 083	453 959	576 354	862	3.4**	134 450
September 2015	14	30	126 790 000	492 634	483 931	641 235	917	3.5**	138 422
August 2015	12	27	65 808 500	362 597	355 722	410 715	630	3.5**	104 910
July 2015	14	29	114 643 000	498 144	496 290	590 569	932	4.1**	122 445
June 2015	13	27	117 971 500	534 698	541 154	668 622	826	3.8**	142 270

<sup>++:</sup> indicates simple average

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month

<sup>&</sup>lt;sup>5</sup> Monthly weighted average of the average bid volume per bidder in each auction (total bid volume in each auction divided by number of bidders participating in that auction), weighted by volume auctioned in each auction.

Average over the whole month of the volume bid by bidders each time they are present in an auction (computed as total volume bid for the month / sum over whole month of number of bidders present in each auction).

<sup>&</sup>lt;sup>7</sup> Standard deviation of total volume bid per bidder in each auction over the month.

<sup>8</sup> Monthly simple average of the average number of bids per bidder in each auction (total number of bids in each auction divided by number of bidders

participating in that auction).

Monthly weighted average of the average bid size per bidder in each auction (total bid volume in each auction divided by number of bids in that auction), weighted by volume auctioned in each auction.

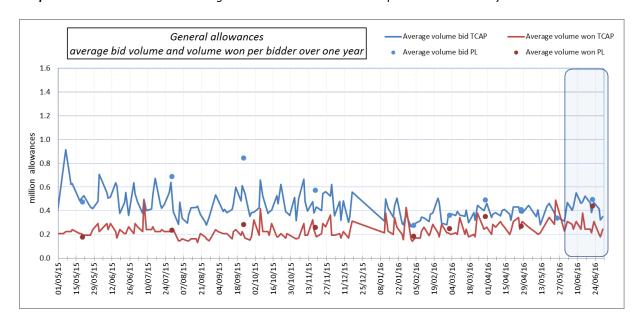
Table 3 provides monthly data on successful bids from June 2015 to June 2016. See also Graph 4.

Table 3: General Allowances - monthly statistics on successful bids

Month	Nr of auctions	Nr of successful bidders <sup>(1)</sup>	Total auction volume	Average volume won per bidder per auction <sup>10</sup>	Average volume won per bidder per auction over the month 11	Standard deviation of volume won per bidder per auction over the month <sup>12</sup>	Total monthly nr of successful bids
June 2016	14	29	48 932 500	279 016	263 078	300 660	326
May 2016	9	26	30 825 000	283 328	263 462	292 574	256
April 2016	13	24	44 626 000	270 885	264 059	255 486	287
March 2016	15	31	51 577 000	245 210	232 329	256 557	416
February 2015	14	27	48 051 000	207 756	199 382	213 657	468
January 2016	9	30	30 825 000	268 407	242 717	293 170	264
December 2015	8	29	23 244 500	212 431	205 704	218 453	219
November 2015	14	26	40 789 500	237 529	222 893	253 845	311
October 2015	13	26	37 934 000	232 204	218 011	244 823	302
September 2015	14	27	40 788 000	209 499	203 940	218 967	378
August 2015	12	23	17 508 000	158 449	156 321	187 135	173
July 2015	14	24	40 788 000	255 324	245 711	314 528	334
June 2015	13	24	37 934 000	243 436	237 088	345 804	284

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month

**Graph 4:** General allowances - average bid volume and volume won per bidder over one year 13



<sup>&</sup>lt;sup>10</sup> Monthly weighted average of the average volume won per bidder in each auction (total volume won in each auction divided by the number of successful bidders in that auction), weighted by volume auctioned in each auction.

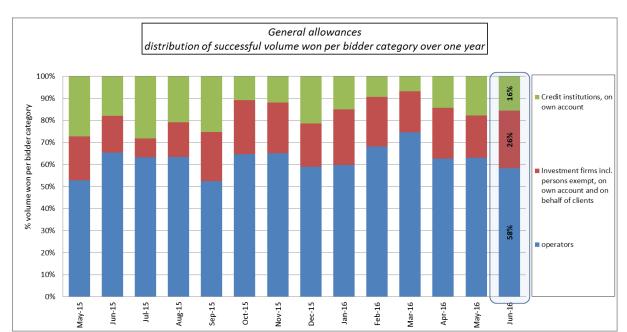
11 Average over the whole month of the volume won per bidder each time they are successful in an auction (computed as total volume auctioned for the

month / sum over whole month of number of bidders successful in each auction). <sup>12</sup> Standard deviation of volume won per bidder in each auction over the month.

<sup>&</sup>lt;sup>13</sup> Auctions on behalf of Poland were held on the following days: 20/5/2015, 29/7/2015, 23/9/2015, 18/11/2015, 3/2/2016, 2/3/2016, 30/3/2016, 27/4/2016, 25/5/2016 and 22/6/2016.

#### 1.1.3. Type of bidders - general allowances

In June 2016, almost all volume bid was done on own account, with 1.51% of the volume submitted by intermediaries on behalf of a client<sup>14</sup>. The shares in the total successful bid volume per bidder category are indicated in graph 5 and in table 4.



**Graph 5**: General allowances - distribution of successful won volume per bidder category over one year

**Table 4:** General allowances – distribution of volume won per bidder category and their standard deviations

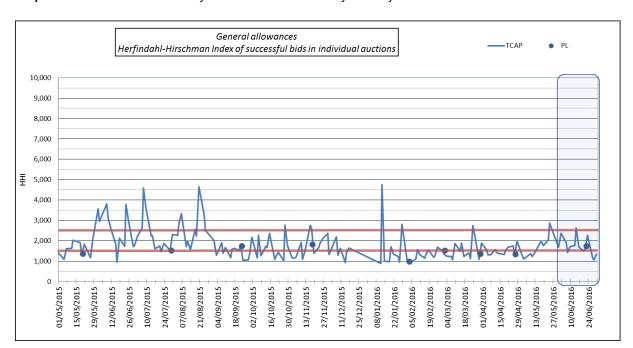
Month	% volume won coming from bidding on behalf of a client	Bidder category	% volume won	Standard deviation of % of volume won
		Operators (including Business groupings)	58.3%	15.1 % points
June 2016	3.67%	Investment firms (including persons exempt)	26.1%	9.9 % points
		Credit institutions	15.6%	14.7 % points

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 $<sup>^{14}</sup>$  The data related to bidding on behalf of clients reflects the self-assessment of the respective trader.

#### 1.1.4. Concentration - general allowances

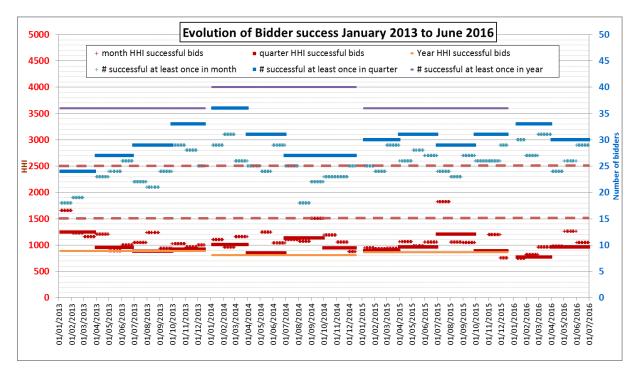
The Herfindahl-Hirschman Index (HHI) of successful bids is used to measure market concentration<sup>15</sup>. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is 'not-concentrated', between 1 500 and 2 500 is 'moderately concentrated,' and above 2 500 is 'highly concentrated' – these thresholds are indicated in Graphs 6 and 7. Graph 6 indicates the HHI of the individual auctions. Graph 7 indicates the monthly and quarterly HHI and successful bidder participation (number of bidders successful at least once in the period of interest) so as to show the variation over different periods, due to the turnover of participants in the auctions.



Graph 6: General allowances - Herfindahl-Hirschman Index of successful bids in individual auctions

<sup>15</sup> The HHI is calculated as the sum of the squares of all successful bidders' shares (in % points) of the total auctioned volume over the period of interest.

**Graph 7:** General allowances - Herfindahl-Hirschman Index of successful bids and successful bidder participation at monthly, quarterly and yearly level



#### 1.2 Aviation allowances auctions

The auctioning of *aviation allowances* restarted as of November 2014<sup>16</sup>. Pursuant to the published *auction calendar*, only *aviation allowances* for the calendar year 2012 were auctioned in 2014<sup>17</sup>; the *aviation allowances* for the calendar years 2013-2015 were auctioned in 2015, in accordance with the published 2015 *auction calendar*. Poland decided to aggregate the *aviation allowances* for the calendar years 2012 to 2015 in a single auction held in May 2015.

#### 1.2.1 Clearing prices and participation – aviation allowances

An overview of the auction results from June 2015 to June 2016 is provided in Table 5.

No aviation allowances have been auctioned in June 2016.

**Table 5**: Aviation allowances – main statistics on the results of the auctions per month

Month	Total auction volume	Total bid volume	Total revenue (€)	Average Cover ratio <sup>18</sup>	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)
June 2016	-	-	-	-	-	-	-
May 2016	683 500	3 140 500	3 909 620	4.6	11.0	5.0	5.72
April 2016	-	-	-	-	-	-	-
March 2016	683 500	2 625 500	3 376 490	3.8	8.0	3.0	4.94
February 2016	120 000	1 663 000	576 000	13.9	12.0	2.0	4.80
January 2016	683 500	3 866 000	4 490 595	5.7	12.0	5.0	6.57
December 2015	-	-	-	-	-	-	-
November 2015	933 000	3 754 000	7 697 250	4.0	11.0	3.0	8.25
October 2015	-	-	-	-	-	-	-
September 2015	935 000	4 683 000	7 423 900	5.0	12.0	5.0	7.94
August 2015	-	-	-	-	-	-	-
July 2015	935 000	4 095 000	6 694 600	4.4	12.0	6.0	7.16
June 2015	-	-	-	-	-	-	-
2015 total	11,641,000	39,026,000	81,846,705	3.4	11.0	7.5	7.03
2014 total	6 570 500	28 201 500	39 454 510	4.3	13.0	8.0	6.00

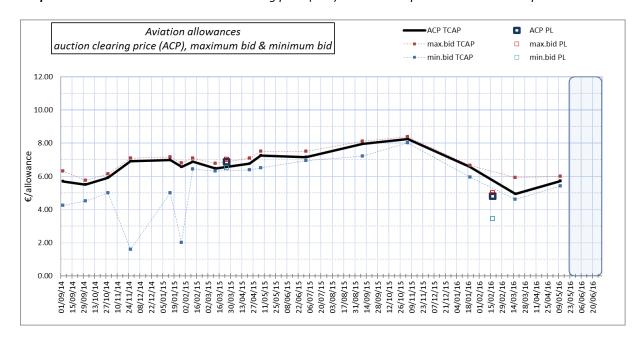
<sup>18</sup> The cover ratio is the ratio between the total bid volume and the auction volume.

<sup>&</sup>lt;sup>16</sup> The auctions were suspended end 2012, see the Regulatory update published by the Commission on 16 November 2012 http://ec.europa.eu/clima/news/articles/news\_2012111601\_en.htm

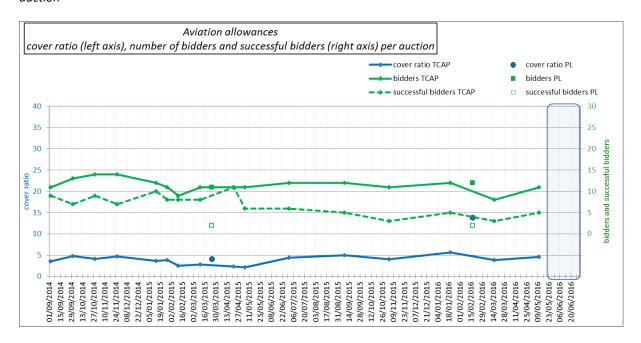
http://ec.europa.eu/clima/news/articles/news 2012111601 en.htm.

17 See also the regulatory update published by the Commission on 29 July 2014; http://ec.europa.eu/clima/news/articles/news 2014072901 en.htm.

**Graph 8:** Aviation allowances - auction clearing price (ACP) & maximum prices bid & minimum prices bid <sup>19</sup>



**Graph 9:** Aviation allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction



 $<sup>^{19}</sup>$  Auctions on behalf of Poland were held on the following days: 25/3/2015 and 17/2/2016.

No aviation allowances have been auctioned in May 2016.

#### 1.2.2 Bidding behaviour - aviation allowances

Table 6 provides monthly data on the bids submitted from June 2015 to June 2016. See also Graph 11.

Table 6: Aviation allowances – monthly statistics on the submitted bids

Month	Nr of auctions	Nr of bidders <sup>(1)</sup>	Total volume of bids	Average total volume bid per bidder per auction <sup>20</sup>	Average total volume bid per bidder per auction over the month <sup>21</sup>	standard deviation of total volume bid per bidder per auction over the month <sup>22</sup>	Total monthly nr of bids	Average nr. of bids per bidder per auction <sup>23</sup>	Average bid size <sup>24</sup>
June 2016	-	-	-	-	-	-	-	-	-
May 2016	1	11	3 140 500	285 500	285 500	277 449	41	3.7**	76 598
April 2016	-	-	-	-	-	-	-	-	-
March 2016	1	8	2 625 500	328 188	328 187	271 282	33	4.1**	79 561
February 2016	1	12	1 663 000	138 583	138 583	126 140	40	3.3**	41 575
January 2016	1	12	3 866 000	322 167	322 167	234 168	45	3.8**	85 911
December 2015	-	-	-	-	-	-	-	-	-
November 2015	1	11	3 754 000	341 273	341 273	271 392	37	3.4**	101 459
October 2015	-	-	-	-	-	-	-	-	-
September 2015	1	12	4 683 000	390 250	390 250	259 804	49	4.1**	95 571
August 2015	-	-	-	-	-	-	-	-	-
July 2015	1	12	4 095 000	341 250	341 250	219 603	42	3.5**	97 500
June 2015	-	-	-	-	-	-	-	-	-

<sup>++:</sup> indicates simple average

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month

<sup>&</sup>lt;sup>20</sup> Monthly weighted average of the average bid volume per bidder in each auction (total bid volume in each auction divided by number of bidders participating in that auction), weighted by volume auctioned in each auction.

Average over the whole month of the volume bid by bidders each time they are present in an auction (computed as total volume bid for the month / sum over the whole month of number of bidders present in each auction). <sup>22</sup> Standard deviation of total volume bid per bidder in each auction over the month.

Monthly simple average of the average number of bids per bidder in each auction (total number of bids in each auction divided by number of bidders

participating in that auction).

<sup>24</sup> Monthly weighted average of the average bid size per bidder in each auction (total bid volume in each auction divided by number of bids in that auction), weighted by volume auctioned in each auction.

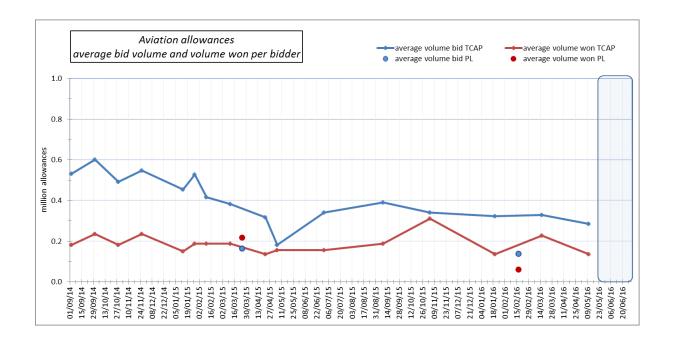
Table 7 provides monthly data on successful bids from June 2015 to June 2016. See also Graph 11.

Table 7: Aviation Allowances - Monthly statistics on successful bids

Month	Nr of auctions	Nr of successful bidders <sup>(1)</sup>	Total auction volume	Average volume won per bidder per auction <sup>25</sup>	Average volume won per bidder per auction over the month 26	Standard deviation of volume won per bidder per auction over the month <sup>27</sup>	Total monthly nr of successful bids
June 2016	-	-	-	-	-	-	-
May 2016	1	5	683 500	136 700	136 700	87 650	8
April 2016	-	-	-	-	-	-	-
March 2016	1	3	683 500	227 833	227 833	199 581	7
February 2016	1	2	120 000	60 000	60 000	40 000	2
January 2016	1	5	683 500	136 700	136 700	32 366	6
December 2015	-	-	-	-	-	-	-
November 2015	1	3	933 000	311 000	311 000	212 228	8
October 2015	-	-	-	-	-	-	-
September 2015	1 5 9		935 000	187 000	187 000	99 615	8
August 2015	-	-	-	-	-	-	-
July 2015	1 6 935		935 000	155 833	155 833	100 847	11
June 2015	-	-	-	-	- 1	-	-

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month

Graph 11: Aviation allowances - average bid volume and volume won per bidder



<sup>&</sup>lt;sup>25</sup> Monthly weighted average of the average volume won per bidder in each auction (total volume won in each auction divided by the number of successful bidders in that auction), weighted by volume auctioned in each auction.

26 Average over the whole month of the volume won per bidder each time they are successful in an auction (computed as total volume auctioned for the

month / sum over the whole month of number of bidders present in each auction).

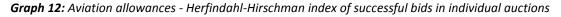
<sup>27</sup> Standard deviation of volume won per bidder in each auction over the month.

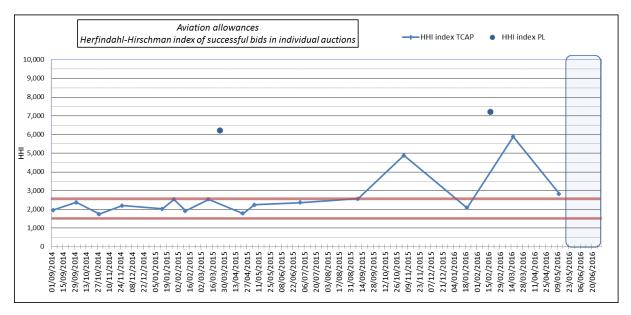
#### 1.2.3 Type of bidders – aviation allowances

No aviation allowances have been auctioned in May 2016.

#### 1.2.4 Concentration – aviation allowances

The HHI of successful bids is used to measure market concentration<sup>28</sup>. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is 'not-concentrated', between 1 500 and 2 500 is 'moderately concentrated,' and above 2 500 is 'highly concentrated'. Graph 12 indicates the HHI of the individual auctions.





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The HHI is calculated as the sum of the squares of all successful bidders' shares (in % points) of the total auctioned volume over the period of interest.

#### 2. Implementation of and compliance with the applicable rules

#### Fair and open access

EEX verified that each auction participant belonged to one of the categories of eligible bidders set out in Article 18 of the *Auctioning Regulation*. Table 9 presents the number of eligible bidders under each category in June 2016

Most of the active participants in the secondary carbon market are assumed to also have been admitted to bid in the auctions<sup>29</sup>.

Table 8: Eligible participants to the auctions in June 2016, by category

	Opera	ator	Investment	Credit	Business	Person exempt	
Number of participants	Stationary	Aircraft		Institution	grouping	from MiFID requirements	Total
Participants admitted to EEX's							110
emissions spot secondary market							110
Participants eligible to bid in the	48	1	9	4	0	6	68
auctions	40	1	9	4	U	O	08
(Of which:) Participants eligible to							
bid in the auctions on behalf of	-	-	2	2	-	1	5
clients							
(Of which:) Auction-only access	2	0	1	0	0	0	3

Throughout the period, EEX actively promoted the auctions in view of attracting bidders.

No irregularities or deviations from the admission and access requirements were found.

#### **Transparency**

The results for each auction were published in accordance with Article 61 of the *Auctioning Regulation*, not later than 15 minutes after the close of the *bidding window*.

EEX revised its webpage on auctioning where necessary for keeping it up to date.

#### **Technical and operational aspects**

No irregularities or deviations from the requirements were found as regards the auctions themselves or the *clearing* and *settlement* processes.

EEX's Market Surveillance department surveyed all auctions with a view to detecting any *market abuse*, money laundering, terrorist financing or other criminal activities. No such wrongdoing was publicly reported. EEX's Market Surveillance department takes its instructions only from SMWA (Saxony's Ministry for Economy and Employment) and is independent of the exchange itself.

No infringements of the confidentiality requirements were identified.

<sup>&</sup>lt;sup>29</sup> This assessment is based on the auction participants' activity in EEX's secondary market and general market knowledge of EEX.

#### Other aspects

No problems or issues were identified as regards coordination of the auctions between the various auction platforms.

A new auctioneer was appointed by Greece in November 2014 and by Hungary in January 2015.

### 3. Overview of, and any updates on breaches of provisions or ongoing proceedings

No breaches or problems of non-conformity were reported. There were no proceedings on such breaches or problems of non-conformity dating from before the reporting period.

Comments of the auction platform on the draft of this report and the way they have been taken into account

EEX made no comments on the report.

Date of publication: 16/09/2016

#### Glossary

Auction calendar Document setting out the bidding windows, individual volumes and

auction dates of the auctions in a given calendar year. See Articles 11, 13

and 32 of the Auctioning Regulation.

Auction Clearing Price Price determined upon closure of the bidding window.

Auction-only access Access to the auctions without becoming a member of or participant in

other markets organised by the auction platform.

Auctioning Regulation Commission Regulation (EU) No 1031/2010 — Timing, administration and

other aspects of auctioning of greenhouse gas emission allowances pursuant to Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowances trading within the Community, Official Journal L 302, 18.11.2010, p. 1, as subsequently amended. See:

http://ec.europa.eu/clima/policies/ets/cap/auctioning/documentation\_en

.htm.

Auctioneer Entity appointed by a Member State that offers the allowances to be

auctioned to the auction platform and receives the auction proceeds due to the appointing Member State. See Articles 22 and 23 of the *Auctioning* 

Regulation.

Back-loading Proposal by the Commission to postpone, as a short-term measure, the

auctioning of 900 million allowances from the years 2013-2015 until 2019-2020. See: http://ec.europa.eu/clima/policies/ets/reform/index en.htm.

Best-bid and best-ask prices The best-bid price is the highest price any buyer is willing to pay and the

best-ask price is the lowest price any seller is willing to accept.

Business groupings Groupings of operators or aircraft operators. See Article 18(1)(d) of the

Auctioning Regulation.

Bidding window Time during which bidders can submit bids. See Article 8(1) of the

Auctioning Regulation.

Clearing Processes preceding the opening of the Bidding window, during the

Bidding window and following the closure of the Bidding window until Settlement, involving the management of any risks arising during that interval including margining, netting or novation or any other services carried out possibly by a Clearing or Settlement system. See Article 3(31)

of the Auctioning Regulation.

Cover ratio Total bid volume divided by the available volume in the auction.

Credit institution Credit institution as defined in EU legislation on credit institutions (Article

4(1) of Directive 2006/48/EC).

ETS Directive 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 and amending Council Directive

96/61/EC, OJ L 275, 25.10.2003, p. 32, as subsequently amended. See: http://ec.europa.eu/clima/policies/ets/documentation\_en.htm.

General Allowance Allowance to emit one tonne of CO2-equivalent, see Article 3(a) of the ETS

Directive, also referred to as EUA.

**Aviation Allowance** Allowance to emit one tonne of CO2-equivalent that can be used by

aircraft operators, also referred to as EUAA. See Article 12(2a) and (3) of

the ETS Directive.

Investment firms Investment firms as defined in EU financial markets legislation (point (1) of

Article 4(1) of Directive 2004/39/EC).

Market abuse Insider dealing and market manipulation. See Article 36 of the Auctioning

Regulation and Article 1 of Directive 2003/6/EC ('Market Abuse Directive').

Participating Member States All EU Member States except Germany, Poland and the UK, which decided

to opt out from the joint procurement of a common auction platform

pursuant to Article 30 of the Auctioning Regulation.

Persons exempt from MiFID Natural or legal persons exempt from the authorisation requirements in

> EU financial law because their trading and investment services activities are only ancillary to their main business (Article 2(1)(i) of Directive 2004/39/EC) and that have been authorised under national legislation implementing the rules laid down in the Auctioning Regulation to bid for

allowances in the auctions. See Article 18(2) of the Auctioning Regulation.

Secondary market Market in which persons buy or sell allowances either before or after they

> are allocated either free of charge or through auctioning. To be distinguished from the 'primary market', consisting of the auctions of

allowances.

Settlement Payment on delivery of the allowances. See Article 3(34) of the Auctioning

Regulation.

Spot secondary market Secondary market for allowances with delivery within 5 days from the

transaction.

platform

Transitional common auction Auction platform appointed pursuant to Article 26(2) of the Auctioning

Regulation, also referred to as TCAP.

Third trading period The period 2013-2020, including the allowances referred to in Article 10(1)

> of the Auctioning Regulation auctioned in 2012. Allowances are valid during a given period without distinction as regards the year within that

period. See Article 13 of the ETS Directive.

#### Annex 1 Auction revenues per Member State until June 2016 (reported in euros)

(The data used in this annex can also be obtained directly from the EEX website.)

	General Allo	owances	Aviation All	owances	All Allowances
	12 November 2012 – May 2016	June 2016	12 November 2012 – May 2016	June 2016	12 November 2012 – June 2016
Austria	221 486 885	6 188 000	3 890 370	-	231 565 255
Belgium	396 897 430	112 84 000	5 148 105	-	413 329 535
Bulgaria	269 894 365	8 954 400	1 272 195	-	280 120 960
Croatia	95 363 840	2 111 200	576 300	-	98 051 340
Cyprus	2 359 150	-	1 934 335	-	4 293 485
Czech Republic	299 092 220	12 448 800	1 843 995	-	313 385 015
Denmark	196 491 480	5 605 600	4 281 190	-	206 378 270
Estonia	57 119 415	2 475 200	218 185	-	59 812 800
Finland	266 098 900	7 425 600	3 260 610	-	276 785 110
France	871 820 505	24 460 800	24 047 895	-	920 329 200
Greece	548 463 805	15 506 400	6 831 685	-	570 801 890
Hungary	205 512 220	6 697 600	1 426 245	-	213 636 065
Ireland	145 724 905	4 149 600	3 337 275	-	153 211 780
Italy	1 534 748 335	43 097 600	21 810 435	-	1 599 656 370
Latvia	42 708 475	1 164 800	749 930	-	44 623 205
Lithuania	77 948 455	2 184 000	387 390	-	80 519 845
Luxemburg	19 016 845	509 600	890 030	-	20 416 475
Malta	16 023 510	436 800	755 030	-	17 215 340
The Netherlands	532 425 275	14 924 000	9 703 795	-	557 053 070
Poland	530 185 140	24 461 625	3 558 480	-	558 205 245
Portugal	278 966 550	7 862 400	4 593 085	-	291 422 035
Romania	540 505 810	20 456 800	2 161 350	-	563 123 960
Slovak Republic	244 859 635	6 843 200	267 735	-	251 970 570
Slovenia	70 472 700	1 965 600	201 545	-	72 639 845
Spain	1 375 387 780	38 620 400	25 315 815	-	1 439 323 995
Sweden	141 719 425	3 967 600	5 190 915	-	150 877 940
TOTAL	8 981 293 055	273 801 625	133 653 920	-	9 388 748 600

#### Annex 2 Results of individual auctions on behalf of participating Member States and Poland in May 2016

(The data used in the highlighted subsection of the tables presented in this annex can also be obtained directly from the EEX website.)

								G	eneral	Allowa	nces - June 20	16							
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
02/06/2016	5.96	3.45	6.15	5.80	5.93	3,425,000	8,438,000	2.5	18	11	20,413,000	75	23	4.2	112 507	468 778	523 444	311 364	394 092
06/06/2016	6.05	3.45	6.22	5.86	6.01	3,425,000	8,485,000	2.5	21	12	20,721,250	70	18	3.3	121 214	404 048	515 569	285 417	324 817
07/06/2016	6.14	3.45	6.33	5.95	6.11	3,425,000	8,703,000	2.5	20	14	21,029,500	71	24	3.6	122 577	435 150	540 990	244 643	243 652
09/06/2016	6.05	3.45	6.18	5.87	6.02	3,425,000	9,890,000	2.9	18	11	20,721,250	70	16	3.9	141 286	549 444	548 667	311 364	291 002
13/06/2016	5.83	3.45	6.05	5.68	5.82	3,425,000	7,862,000	2.3	17	14	19,967,750	68	24	4.0	115 618	462 471	531 005	244 643	296 709
14/06/2016	5.78	5.52	6.00	5.72	5.71	3,425,000	9,989,000	2.9	21	9	19,796,500	66	13	3.1	151 348	475 667	623 588	380 556	445 494
16/06/2016	5.82	5.62	6.00	5.80	5.80	3,425,000	10,976,000	3.2	21	14	19,933,500	75	21	3.6	146 347	522 667	622 941	244 643	284 959
20/06/2016	5.76	5.58	6.00	5.76	5.76	3,425,000	7,453,000	2.2	16	14	19,728,000	61	29	3.8	122 180	465 813	554 393	244 643	255 702
21/06/2016	5.68	3.45	6.00	5.56	5.67	3,425,000	7,665,000	2.2	20	16	19,454,000	74	30	3.7	103 581	383 250	533 128	214 063	270 397
22/06/2016	5.55	5.00	5.80	5.50	5.50	4,407,500	9,374,000	2.1	19	10	24,461,625	77	16	4.1	121 740	493 368	567 171	440 750	380 427
23/06/2016	5.60	3.45	6.00	5.43	5.52	3,425,000	8,431,000	2.5	18	11	19,180,000	72	14	4.0	117 097	468 389	596 953	311 364	380 708
27/06/2016	4.86	3.45	6.00	4.81	4.85	3,425,000	8,738,500	2.6	21	17	16,645,500	71	31	3.4	123 077	416 119	502 619	201 471	193 493
28/06/2016	4.80	3.45	5.87	4.78	4.81	3,425,000	6,806,500	2.0	21	19	16,440,000	64	37	3.0	106 352	324 119	361 956	180 263	182 457
30/06/2016	4.47	3.45	6.00	4.47	4.46	3,425,000	6,329,000	1.9	18	14	15,309,750	65	30	3.6	97 369	351 611	371 341	244 643	230 763
Monthly Value	-	-	-	-	-	48 932 500	119 140 000	-	29 <sup>(1)</sup>	29 <sup>(1)</sup>	273 801 625	979	326	3.6 <sup>(2)</sup>	121 696 <sup>(3)</sup>	442 900 <sup>(4)</sup>	537 011 <sup>(5)</sup>	263 078 <sup>(6)</sup>	300 660 <sup>(7)</sup>
Monthly minimum	4.47	3.45	5.80	-	-	3 425 000	6,329,000	1.9	16	9	15 309 750	61	13	3.0	97 369	324 119	-	180 263	-
Monthly average	5.60	4.04	6.04	5.50**	-	3 495 179**	8 527 348	2.4	19.2	13.2	19 557 259**	70.1	23.1	3.7**	121 595	445 334	-	279 016	-
Monthly maximum	6.14	5.62	6.33	-	-	4 407 500	10 976 000	3.2	21	19	24 461 625	77	37	4.2	151 348	549 444	-	440 750	-

Note: volume variables reported in tCO2, monetary variables reported in €

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month. (2): Average number of bids submitted over the whole month by each bidder in each auction. Computed as total number of bids for the month / sum over whole month of number of bidders present in each auction. (3): Average size of all bids submitted in all auctions over the month. Computed as total bid volume for the month / number of bidders present in each auction. (4): Average over the whole month of the volume bid by bidders each time they are present in an auction. Computed as total volume bid for the month / sum over whole month of number of bidders present in each auction, (5): Standard deviation of the total volume bid, by each bidder in each auction, over the whole month. (6): Average over the whole month of the volume won by bidders each time they are successful in an auction. Computed as total auction volume for the month / sum over whole month of number of bidders successful in each auction. (7): Standard deviation of the total volume won by each bidder in each auction, over the whole month.

++: indicates simple average

	Aviation Allowances – June 2016																		
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monthly Value	-	-	-	-	-	-	-	-	_(1)	_(1)				_(2)	_(3)	- <sup>(4)</sup>	_(5)	_(6)	_(7)
Monthly minimum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monthly average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monthly maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: volume variables reported in tCO2, monetary variables reported in €

The data for previous auctions can be downloaded from EEX's website: <a href="https://www.eex.com/en/market-data/emission-allowances/auction-market/european-emission-allowances-auction-download">https://www.eex.com/en/market-data/emission-allowances/auction-market/european-emission-allowances-auction-market/european-emission-allowances-auction-download</a>

<sup>(1):</sup> Number of unique individual bidders or unique successful bidders present in a whole month. (2): Average number of bids submitted over the whole month by each bidder in each auction. Computed as total number of bids for the month / sum over whole month of number of bidders present in each auction. (3): Average size of all bids submitted in all auctions over the month. Computed as total bid volume for the month / number of bids for the month. (4): Average over the whole month of the volume bid by bidders each time they are present in an auction. Computed as total volume bid for the month / sum over whole month of number of bidders present in each auction. (5): Standard deviation of the total volume bid, by each bidder in each auction, over the whole month. (6): Average over the whole month of the volume won by bidders each time they are successful in an auction. Computed as total auction volume for the month / sum over whole month of number of bidders successful in each auction. (7): Standard deviation of the total volume won by each bidder in each auction, over the whole month.

++: indicates simple average

