



Auctioning

German Auctioning of Emission Allowances
Periodical Report: January 2015

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German Auctioning of Emission Allowances

The German auctions of the third trading period are held weekly on the European Energy Exchange (EEX) spot market. The German Emissions Trading Authority (DEHSt) at the Federal Environment Agency is the competent authority for the German auctions. Further updated information on the third trading period auctions can be downloaded from the [EEX website](#). Reports on the second and third trading period auction results are available on the [DEHSt auction website](#). The [2015](#) auction calendar is published on the EEX website.

The following tables summarise the key data of the German auctions on the EEX in 2015:

2015		
Auction product	Third trading period EUA spot contracts	Third trading period EUAA spot contracts
Period	09/01/2015 to 11/12/2015	25/02/2015 and 07/10/2015
Auction volume entire year	143,893,500 EUA	2,229,000 EUAA
Auction volume per auction	3.198 million EUA (1.599 million EUA in August; 3.1815 million EUA on 11/12/2015)	1.4475 million EUAA on 25/02/2015 0.7815 million EUAA on 07/10/2015
Auction frequency	Weekly (Fridays, 09:00 to 11:00 a.m. CET)	On 25/02/2015 and 07/10/2015 (09:00 to 11:00 a.m. CET)
Bid volume	500 EUA/EUAA	
Auction mode	Single-round, uniform-price procedure with a closed order book	

1 Overview for January 2015

In January **12,792,500 EUA** of the third trading period (3rd TP) with a total value of **€88,040,940** were auctioned for Germany at the EEX. This results in a volume-weighted average price per allowance of **€6.88** (+3.5 percent compared to the previous month). The deviations of the clearing prices from the current prices on the lead market fluctuated between 0.14 and 0.44 percent (see also Section 3.3).

Overall, valid bids totaling about 48 million allowances were entered in the trading system across the four auction dates. Thus the average cover ratio in the reporting period was 3.72 (see also Section 2.2). The average participation number of 18 bidders was well above the level of the previous month (11). This also applies to the average number of 13 (10) successful bidders (see also Section 2.1).

The following table gives an overview of the most important auction figures from the auctions performed during the reporting period.

Table 1: Overview of auction data for January 2015

Month	Auction volume	Bid volume	Cover ratio	Bidders	Successful bidders	Price	Revenue
09/01/2015	3,198,000	13,262,000	4.15	17	10	€6.71	€21,458,580
16/01/2015	3,198,000	11,502,500	3.60	18	13	€7.05	€22,545,900
23/01/2015	3,198,000	10,745,000	3.36	16	13	€6.81	€21,778,380
30/01/2015	3,198,000	12,061,000	3.77	22	15	€6.96	€22,258,080
January	12,792,000	47,570,500	**3.72	*18	*13	**€6.88	€88,040,940

Source: EEX, DEHSt

* Average

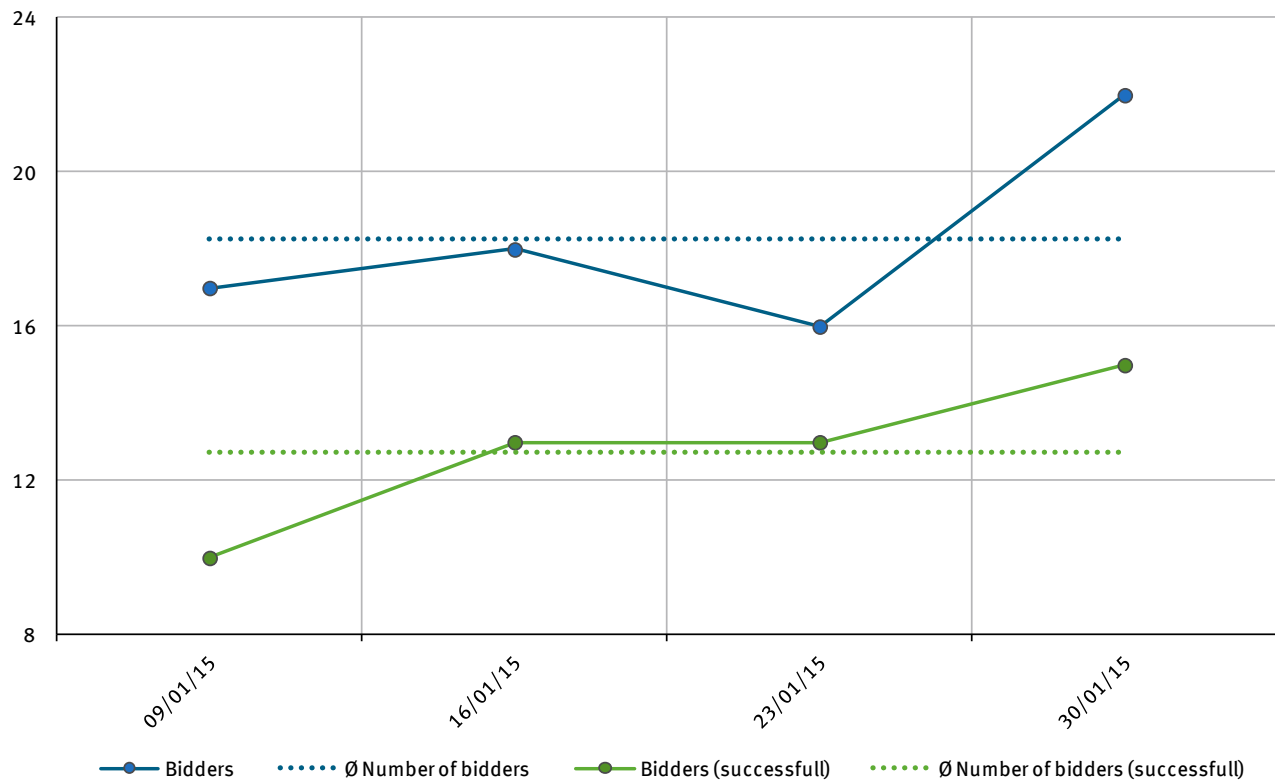
** Volume-weighted average

2 Bidder Participation

2.1 Participation

The number of participants in the German auctions in January averaged across all dates was 18 bidders. The average number of successful bidders was 13.

Participation in the auctions fluctuated between 16 and 22 bidders during the reporting period. The number of successful participants ranged from 10 to 15 bidders. There was no such auction where all participating bidders were successful. The following figure illustrates auction participation over time.

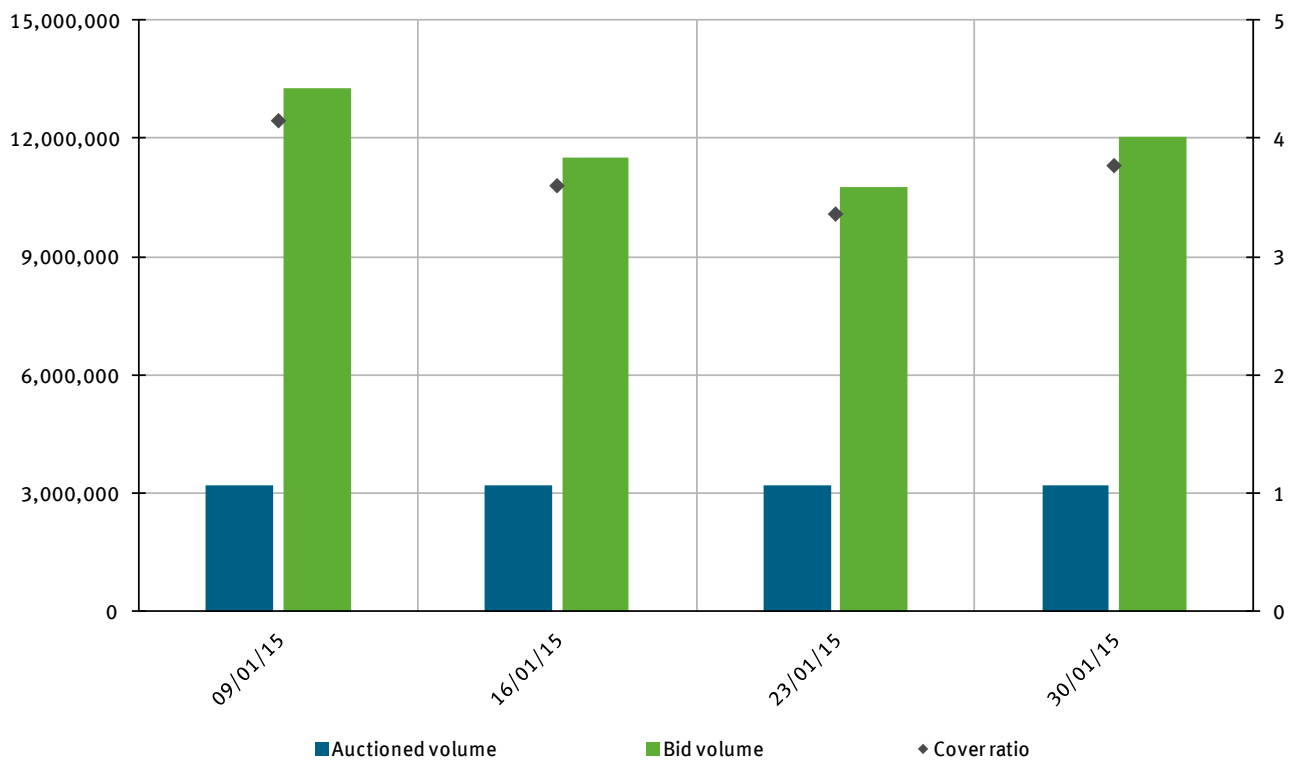


Source: EEX, DEHSt

Figure 1: Number of participating and successful bidders per auction date

2.2 Volume Demand

During the reporting period, the aggregated bid volumes per auction date fluctuated from 10.7 to 13.2 million allowances. Overall, valid bids totaling about 48 million allowances were entered in the trading system in January. The resulting cover ratios during the reporting period ranged between 3.36 and 4.15 (3.72 on average). The figure below summarises the results of each auction date.



Source: EEX, DEHSt

Figure 2: Auctioned and bid volume and cover ratio (secondary axis) for each auction date

Thus, the average bid volume per auction participant in January was about 650,000 allowances. The average volume awarded to each successful bidder was about 250,000 allowances. Awarding allowances at the auctions is based on the EU-wide applicable uniform price procedure with one prescribed round of bidding (also see Info box below).

Info Box: Uniform Price Auction at the EEX

The auctions at the EEX follow the uniform price procedure which is common practice throughout the European Union. It involves one round of bidding and a closed order book. This simple and robust procedure protects against market manipulation and was used already for German auctions during the second trading period. The uniform price procedure means that all successful bidders pay the same price. The auction clearing price is determined by ranking all eligible bids, beginning with the highest bid, according to the bidding price.

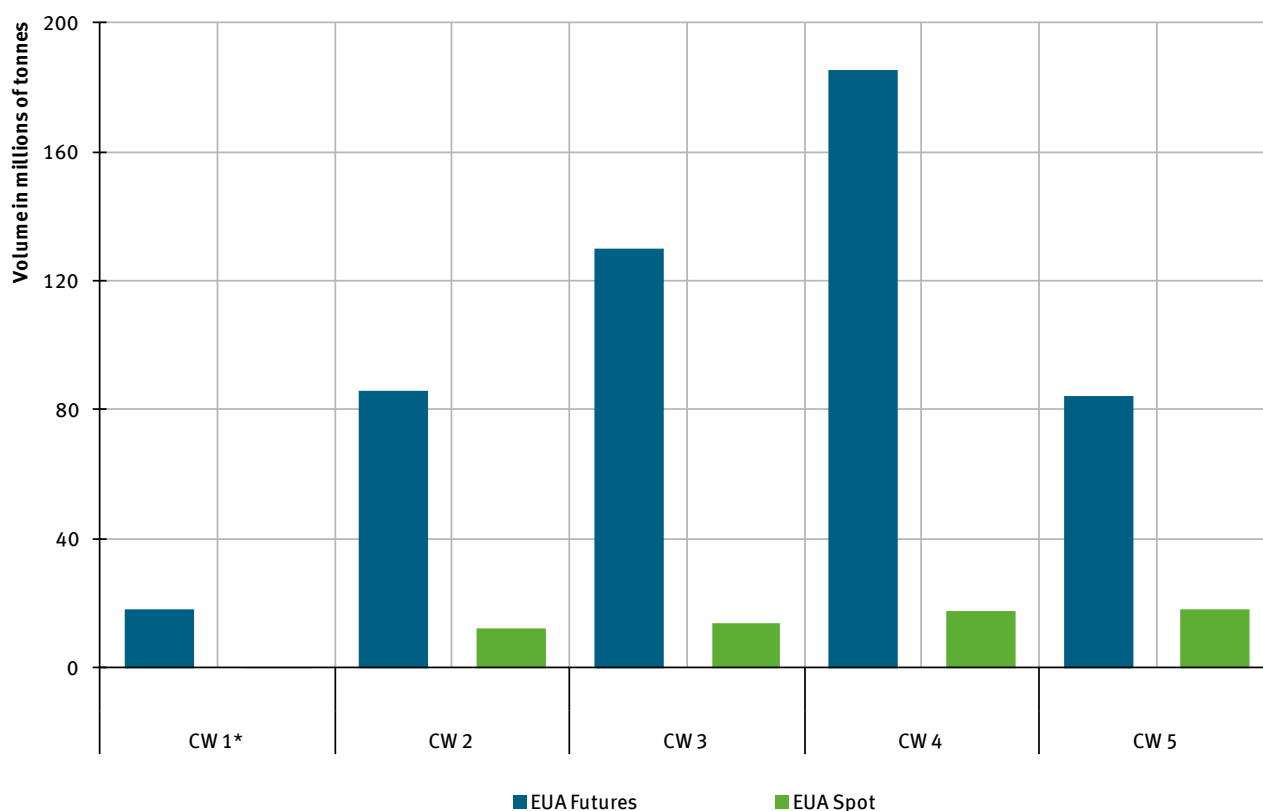
In the event of equal bids, the bids are sorted by a random process. The bid volumes are aggregated starting with the highest bid until the volume of emission allowances on offer (e.g. 3.198 million EUA) is reached. The bid price at which the aggregate volume of bids reaches or exceeds the offered volume of auctioned allowances determines the auction clearing price.

Bidders will thus be awarded their bid volume if their bidding price at least matches the auction clearing price. If a bid matches the clearing price exactly, the bidder may be awarded the remaining allowances which may be below the volume requested, depending on the bidding situation. If the bid from several participants matches the auction clearing price exactly, the above-mentioned random process applies.

3 Auctions and the Secondary Market

3.1 Trading Volume EUA

In January 2015, a total of 12.8 million EUA of the third trading period were auctioned at the EEX for Germany. During the reporting period, the cumulative trading volume in the relevant total market was about 554 million EUA.¹ Thus, the total market trading volume was about 10 percent below the level of the previous month and about 30 percent below the level of January 2014. This market volume was divided into approximately 61 million allowances which were completed as contracts for immediate delivery (spot) and about 493 million allowances for delivery in the future (futures). Thus, about 89 percent of the traded volume was handled on the dominant futures market. The figure below illustrates the trading volumes separately for spot and futures segments based on calendar weeks (CW).



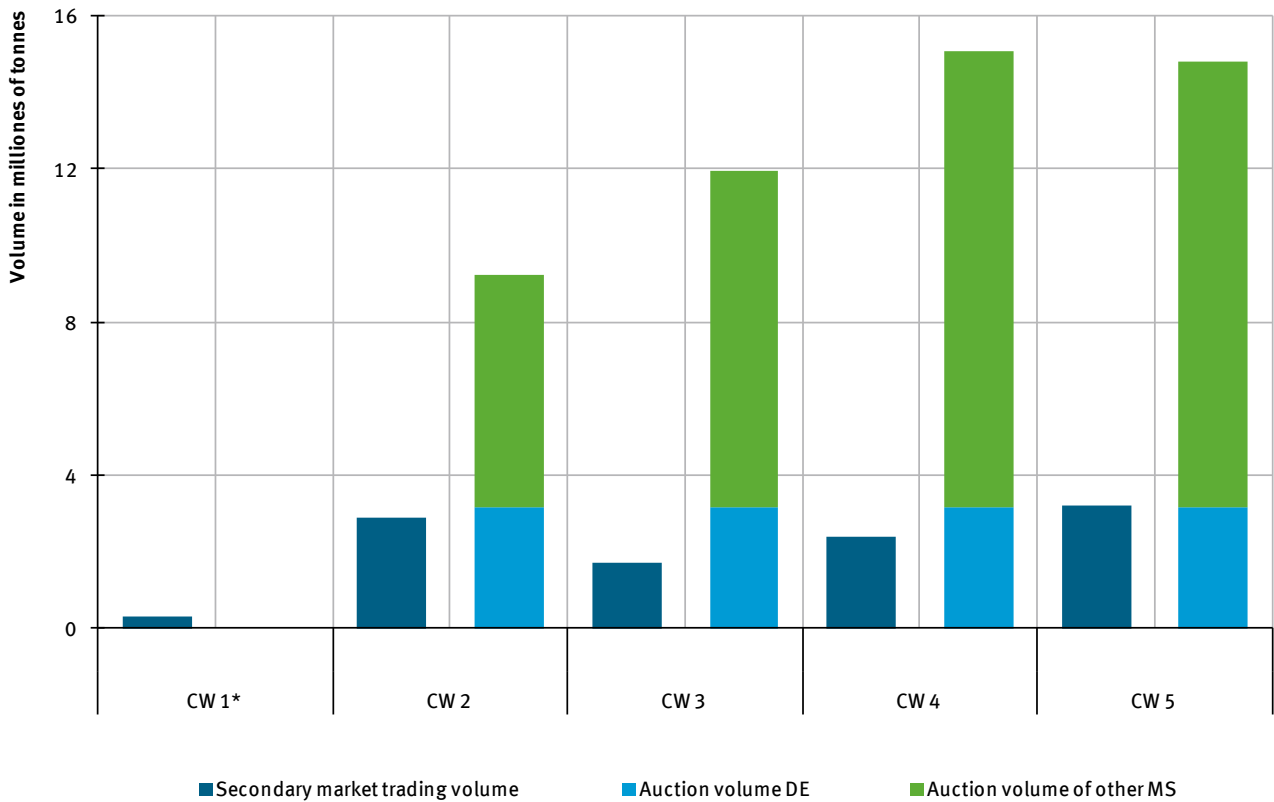
Source: ICE, EEX, CME, Nasdaq OMX, Thomson Reuters, DEHSt
* 29/12/2014-02/01/2015

Figure 3: Trading volumes differentiated by spot and futures in January 2015

In January 2015, a total of about 51 million allowances were auctioned by Member States on the primary market as spot contracts. On the spot secondary market about 10 million allowances were traded. This means that around 85 percent of traded spot contracts have been purchased in primary market auctions. With respect to the relevant total market for EUA, around 9 percent of the traded volume was related to auctions.

Figure 4 shows the trading volume in the spot secondary market and the auction volumes on the primary market per calendar week (CW). In addition to the German auctions, aggregated auction volumes of other EU Member States are also included in the figure.

¹ All emission allowances (EUA) of the third trading period traded on the spot and futures markets on the ICE/ECX, CME/NYMEX, EEX and Nasdaq OMX exchanges are considered. Transactions completed directly on the stock exchange (screen traded) or those bilateral transactions that at least used the stock exchange clearing mechanism are included. Option contracts are not involved. The EUA spot contracts auctioned in January 2015 are also considered.



Source: ICE, EEX, CME, Nasdaq OMX, Thomson Reuters, DEHSt
 DE = Germany, MS = EU Member State
 * 29/12/2014-02/01/2015

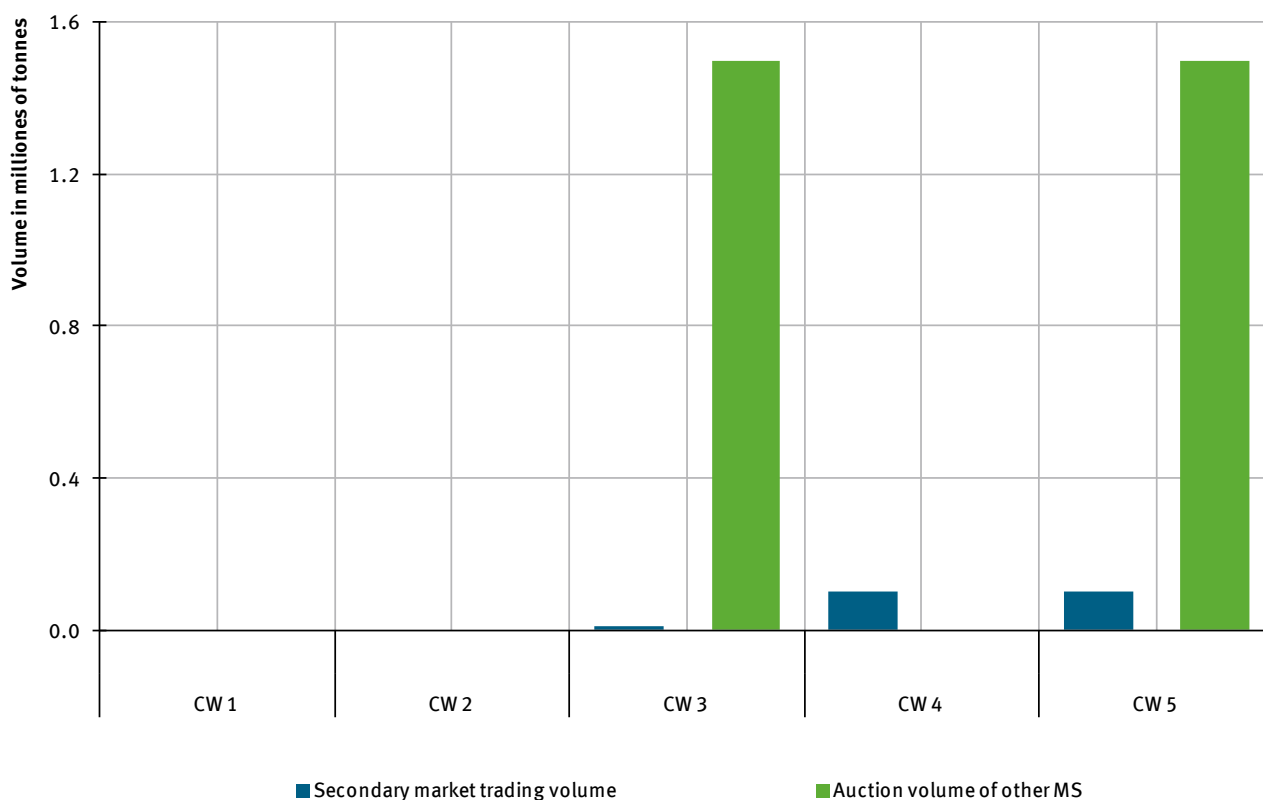
Figure 4: Trading volume on the secondary market (spot) and volume of auctions conducted in January 2015

3.2 Trading Volume EUAA

In January 2015, a total of 0.21 million aviation allowances (EUAA)² were traded on the secondary market (the transaction that took place in CW 3 is graphically hardly visible due to the axis scaling in the diagram below). During the reporting period, a total of about 3 million EUAA were auctioned by Member States on the primary market as spot contracts that are assigned to the 2013 and 2014 EUAA auction budget. Further information on the distribution of EUAA auction volumes between calendar years is available on the website of the [European Commission](#).

Figure 5 shows the trading volume in the secondary market and the auction volumes on the primary market per calendar week (CW).

² All aviation allowances (EUAA) of the third trading period traded on the spot and futures markets on the ICE/ECX and EEX exchanges are considered. Transactions completed directly on the stock exchange (screen traded) or those bilateral transactions that at least used the stock exchange clearing mechanism are included.



Source: ICE, EEX, Thomson Reuters, DEHSt
MS = EU Member State

Figure 5: Trading volume on the secondary market and volume of auctions conducted in January 2015

3.3 Clearing Prices and Price Development on the Secondary Market

Reference prices from the most liquid trading venues served as appropriate benchmarks for evaluating the auction clearing prices achieved on the EUA spot auctions. The reference contract for the auctions is the daily futures traded on the London ICE, whose product specifications are comparable with the spot-product of the auctions. The trade price immediately before the end of the bidding period was used as a reference price. If no trades take place immediately before the end of the bidding period, the last best bid was used as a reference price (see also Info box below).

Info Box: Reference Prices

In regular exchange trading (secondary trading), participants enter their buying and selling requests (bids and asks) into an order book which is constantly updated. As in auctions, such buying bids in secondary trading include quantity and price limits. The price limit is the highest price a buyer is prepared to pay for the purchase of an allowance. Sellers can also put a price limit on their bid, i.e. a minimum price per allowance sold.

The order book is open to inspection by any participant. It shows the current highest purchase offer (best bid) and the lowest sales offer (best ask) with the relevant quantities. Trading occurs where best bid and best ask overlap. Trading price records finally show the price limits where supply equals demand.

Table 2 shows the relative deviations of the clearing price from the London lead market. The deviation on each auction date just before the end of the bidding period (11 a.m. CET) varied over the reporting period between €0.01 (0.14 percent) and €0.03 (0.44 percent).

For a mean value analysis, the arithmetic mean of the absolute values of individual deviations over the reporting period is calculated. The average deviation from the last best bid was 0.26 percent or €0.02 averaged over all dates.

Table 2: Auctions and deviations from secondary market prices in January 2015

Date	Contract	Clearing price	Deviation from ICE Daily Future	
			Absolute*	%
09/01/2015	EUA Spot 3rd TP	€6.71	*€0.02	*0.30%
16/01/2015	EUA Spot 3rd TP	€7.05	*€0.01	*0.14%
23/01/2015	EUA Spot 3rd TP	€6.81	*€0.03	*0.44%
30/01/2015	EUA Spot 3rd TP	€6.96	*€0.01	*0.14%
Mean absolute deviation			€0.02	0.26%

Source: ICE, EEX, Thomson Reuters, DEHSt
* best bid

The following figure shows an overview of the price development for emission allowances of the third trading period on the London lead market. In addition to the daily futures the development of futures for December delivery of the current year is also shown (so-called „front-december future“). Rather than following the common practice of just looking at settlement prices, our analysis takes into account all trades completed at the exchanges during the reporting period.³ The following graphics are based on volume-weighted average trading prices (VWAP), which fluctuated in January 2015 in an interval between around €6.60 to €7.40.⁴



Source: ICE, EEX, Thomson Reuters, DEHSt

Figure 6: ICE secondary market prices and EEX auction clearing prices

- Settlement prices are determined by the exchanges at the end of the trading day. Hence, they only reflect trade activity immediately before closure of the exchange and are, thus, not always an adequate reflection of the prevailing intra-day prices in the secondary market.
- The volume-weighted average price (VWAP) for the ICE EUA Dec15 futures is published on a daily basis by the ICE. The VWAP for the ICE daily future contract is based on the calculations of Thomson Reuters.

4 Implementation of Valid Regulations

4.1 Surveillance Report by HÜSt

In order to guarantee above-board market activities are free of manipulation on the EEX continuous surveillance is conducted by an independent Market Surveillance Office (Handelsüberwachungsstelle, HÜSt) as required under German law. HÜSt reports to the DEHSt on the results of its surveillance activities through regular internal reports. HÜSt reported on auctions in January 2015 as follows (excerpt):

“Within their surveillance for the auctioning of emission allowances on behalf of the Federal Environment Agency at the EEX in January 2015 the Market Surveillance Office of the EEX could not detect any irregularities and especially no behaviour of bidders that was targeted at manipulating the auction price.”

4.2 Fair and Open Access

The implementation of the provisions of the EU Auctioning Regulation guarantees a fair and open access for all auction participants at EEX. Current access options can be found at [EEX Website \(Access\)](#).

More information about the auction process is also available on the EEX auction hotline. EEX can be reached by phone from Mondays to Fridays from 8:00 a.m. to 6:00 p.m. CET at +49 341 2156-331 or by e-mail at auctions@eex.com.

4.3 Auction Result Publication

All auction results and accompanying data were made publicly available during the reporting period within a 15-minute time window directly linked to the respective auction at [EEX Website \(2015 auction results\)](#).

4.4 Other Events

There are no matters relating to the implementation of the existing rules to be reported during the reporting period. The current regulations can be downloaded from [EEX Website \(Regulations\)](#).

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