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ESMA Market Report

EU carbon markets 2026

ESMA Market Report on EU carbon markets 2026

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Executive Summary

This report marks the third edition of ESMA's annual report on carbon markets under its EU Emissions Trading System (ETS) Directive monitoring mandate. This report covers market developments in 2025 and during the first quarter of 2026.

The annual average price of EU emission allowances (EUAs) was EUR 74 per tonne of CO2-equivalent emissions in 2025, up 13% from 2024. Prices gradually increased during the second half of the year and reached a two-year high of EUR 90/tCO2 in January 2026. Rising EUA prices in 2025 were mainly driven by lower supply expectations from a tighter cap and reduced future auction volumes.

There were 589mn allowances auctioned on the Common Platform in 2025 (-2% from 2024), amounting to EUR 43bn – an 11% increase driven by higher EUA prices. All auctions were oversubscribed with 24 participants on average and an average cover ratio of 168%. Auctioned volumes remained significantly concentrated across only a few participants, with almost 90% of EUAs acquired by just 10 bidders.

Meanwhile, EUA trading activity remained broadly stable in 2025, reaching a total of 13.8 bn tonne of CO2-equivalent emissions exchanged across 4.4mn transactions. On-venue trading still accounted for almost 90% of all trading in secondary markets, while OTC trading receded. The total monetary value of EUAs exchanged rose by 9% compared with 2024 to EUR 777bn, due to higher EUA prices. Investment firms and credit institutions accounted for 62% of overall trading volumes – a slight decline from 2024.

Derivative markets continued to play a key role in the EU ETS by facilitating the acquisition of EUAs by compliance entities from financial intermediaries. Total open interest in EUA derivatives increased in 2025, driven mainly by futures and forwards. These contracts allow entities under ETS compliance scope to lock in prices in advance, thereby reducing cost uncertainty. Trading in futures accounted for almost three fourths of on-exchange trading, followed by options. Options trading mainly took the form of call options purchased by financials. Throughout the year, there were on average 917 daily derivative position holders, including 425 investment funds holding 9% of all positions, while investment firms and credit institutions held 58% of all positions.

Overall, the analysis has not unveiled any significant issue in the transparency and integrity of EU carbon markets. EUA auctions and trading dynamics remained largely unchanged, with the market organised in a way that facilitates the flow of EUAs from financial intermediaries to non-financial firms with compliance obligations.

At the beginning of 2026, ESMA observed some ETS market developments reflecting different market expectations for the forthcoming review of the EU ETS Directive. These developments took place amid high and rising energy prices from conflicts in the Middle East, which may have impacted the trading of emission allowances in the EU. EUA spot prices declined 29% between January and March (before partially recovering), while volatility jumped to a two-year high.

Essential statistics

Prices and volatility

	2025	2024	2023
Spot price (EUR/tCO2)	74	65	83
5Y forward price (EUR/tCO2)	88	77	97
Volatility (%)			
Historical	1.5	2.2	1.9
Intraday	0.8	1.1	1.0
Total Number of Allowances in Circulation (MtCO2e)	1,023	1,148	1,112
Verified GHG emissions (MtCO2e)	1,035	1,185	1,150

Primary markets – Auctions

	2025	2024	2023
Number of auctions held	213	221	223
Number of EUAs auctioned (MtCO2e)	589	599	523
Volumes of EUAs auctioned (EUR bn)	43.2	38.8	43.6
Number of participants	47	44	44
Non-financials	32	30	30
Financials	15	14	14
Coverage ratio (%)	168	172	202

Secondary markets – Trading

	tCO2[1] billion			EUR billion		
Trading volumes	2025	2024	2023	2025	2024	2023
On exchange	12.4	12.6	9.1	685	644	623
Futures	9.1	9.7	7.3	684	642	621
Options	3.3	2.9	1.8	0.7	1.2	0.9
Other contracts (including spot)	0.01	0.02	0.03	0.6	0.8	1.1
Off exchange	1.4	1.1	1.0	92	69	80
Share of volumes traded (%)						
Compliance entities and other non-financials	22	21	31	25	22	26
Investment firms and credit institutions	63	64	57	62	67	64
Investment funds	15	15	11	12	10	9
Rest[2]	0.5	0.5	1	1	1	1

Positions in EUA derivatives

	2025	2024	2023
Average daily number of position holders	917	909	783
Compliance entities and other non-financials	260	259	205
Credit institutions and investment firms	111	122	118
Investment funds	425	453	406
Rest[2]	121	74	55
Average daily net long positions (thousands)			
Compliance entities and other non-financials	+368	+315	+359
Credit institutions and investment firms	-423	-326	-362
Investment funds	+48	-14	-2
Rest[2]	+6	+4	+3

Note: [1]tCO2= Tonnes of CO2-equivalent emissions. [2]Rest= Other financials and unclassified entities (e.g. due to the absence of identifiers).
Sources: ICE Endex, European Energy Exchange, Nasdaq Oslo, LSEG, Union Registry, ESMA.

Non-financials – Trading

	tCO2[1] million		EUR billion	
Trading volumes	2025	2024	2025	2024
Utility firms	1000	1000	71	63
Energy firms	253	134	16	12
Commodity traders	778	849	39	39
Transportation firms	14	11	1	0.7
Other non-financials	327	271	23	9

Non-financials – Positions in EUA derivatives

	2025	2024
Average daily number of position holders	207	198
Utility firms	48	55
Energy firms	13	11
Commodity traders	32	31
Transportation firms	8	7
Other non-financials	106	94
Average daily net long positions (thousands)		
Utility firms	144	125
Energy firms	50	20
Commodity traders	18	26
Transportation firms	3	0.3
Other non-financials	24	13

Note: [1]tCO2= Tonnes of CO2-equivalent emissions. Sources: ICE Endex, European Energy Exchange, Nasdaq Oslo, LSEG, Union Registry, ESMA.

Prices and volatility

Summary

The annual average price of EUAs increased 13% in 2025, with prices gradually rising during the second half the year to reach a high of EUR 90/tCO2 in January 2026. Higher prices were mainly driven by lower supply expectations from a tighter cap and lower future auction volumes. EUA prices declined during the first quarter of 2026, ahead of the review of the EU ETS Directive and amid high and rising energy prices from conflicts in the Middle East, while historical volatility rose to a two-year high.

Prices rise on tight supply expectations

In 2025, the **spot price of EUAs** averaged EUR 74 per tonne of CO2-equivalent emissions (/tCO2), up 13% from 2024. After rising to EUR 81/tCO2 in February 2025, EUA prices plunged 26% in two months, dipping below EUR 60/tCO2 in April. Prices then recovered in Q2 before steadily rising throughout the second half of the year to reach in January 2026 their highest level since Q2 2023, at EUR 90/tCO2 (CMR.2).

The EUA **forward curve** shifted up slightly as futures prices increased in line with the spot price (CMR.3) while the EUA futures' cost of carry remained broadly unchanged (CMR.4).

EUA price movements reflected a combination of macroeconomic developments, EUA-specific supply and demand factors, and ETS policy expectations. The early 2025 price decline and recovery mirrored developments in other markets (including energy markets) in reaction to the worsening global economic outlook and tariff-related announcements from the US. The market focus later shifted to expectations of a structurally lower EUA supply from a tighter cap and lower auction volumes in 2026, driving prices up during the second part of the year with investment funds building record-high net long positions in EUA futures (see p.16).

In 2025 there were 492mn EUAs allocated for free (-6% from 2024) and 589mn EUAs auctioned (-2%), contributing to an 11% decrease in the **total number of allowances in circulation** (CMR.1).

Tighter supply was partially offset by lower EUA demand, with 2025 GHG emissions by companies in the ETS scope decreasing 1.3% compared to 2024, led by energy-intensive industries.[1]

ETS review forthcoming

At the beginning of 2026, ESMA observed some ETS market developments reflecting different expectations for the forthcoming review of the EU ETS Directive. The planned review and on-going revision of the Market Stability Reserve may indeed affect future EUA supply dynamics.

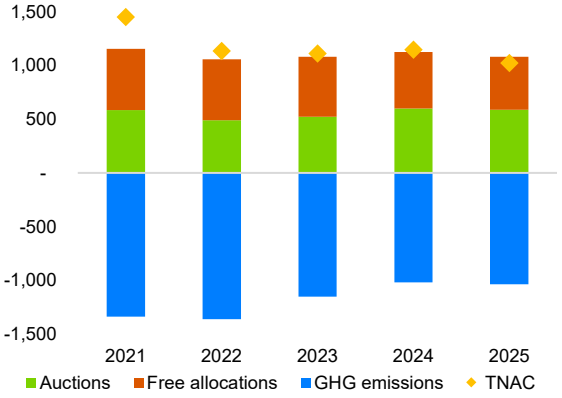
These market developments took place amid high and rising energy prices from conflicts in the Middle East, which may have impacted the trading of emission allowances in the EU. While the energy supply glut and higher energy prices may lead to higher EUA demand in the near term from switching to coal in power generation, efforts to accelerate the transition to renewables and reduce dependencies to fossil energy imports from non-EU countries may lead to lower demand in the long term.

This came on the back of EUA price consolidation following an end-of-the-year rally (for the third consecutive year). EUA spot prices declined 29% from their January peak to a trough of EUR 64/tCO2 in March before partially recovering, while **historical volatility** jumped to a two-year high (CMR.7).

[1] See European Commission, EU Emissions Trading System sustains downward trend in covered emissions, 10 April 2026

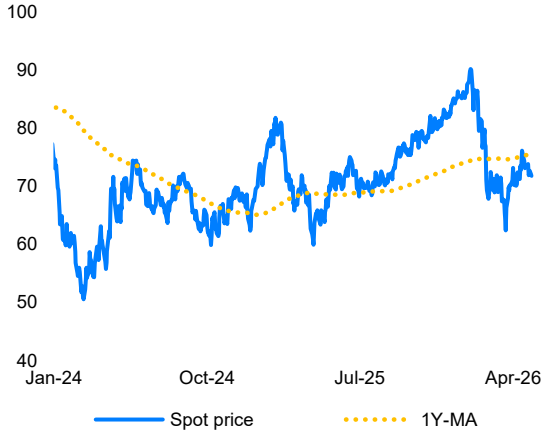
Key indicators

CMR.1
Supply and demand
TNAC decreases on lower supply



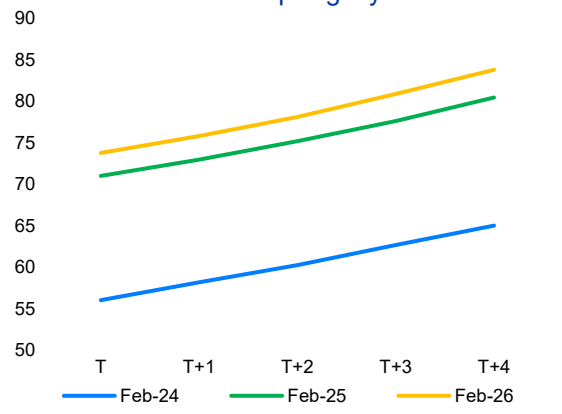
Note: Annual supply (free allocations and auctions) and demand (GHG emissions) of EUAs, in metric tonnes of CO2. TNAC=Total Number of Allowances in Circulation.
Sources: European Commission, ESMA.

CMR.2
Spot price
Spot prices averaged EUR 74/tCO2 in 2025



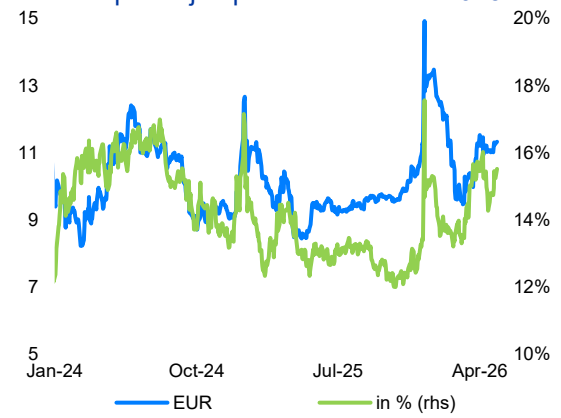
Note: Daily spot price of EU emission allowances, in EUR/tCO2. 1Y-MA=one-year moving average.
Sources: Refinitiv EIKON, ESMA.

CMR.3
Forward curve
Forward curve shifted up slightly



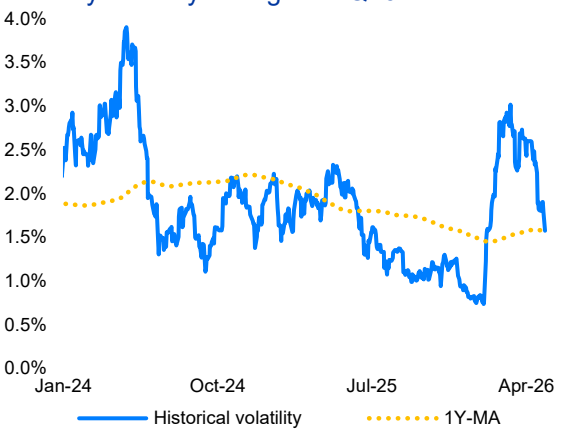
Note: Forward curve of December futures contracts on EU emission allowances traded on ICE Endex, in EUR/tCO2. T=Dec-25 expiry; T+1=Dec-26 expiry, etc.
Sources: Refinitiv EIKON, ESMA.

CMR.4
Cost of carry
Forward spread jumped in December 2025



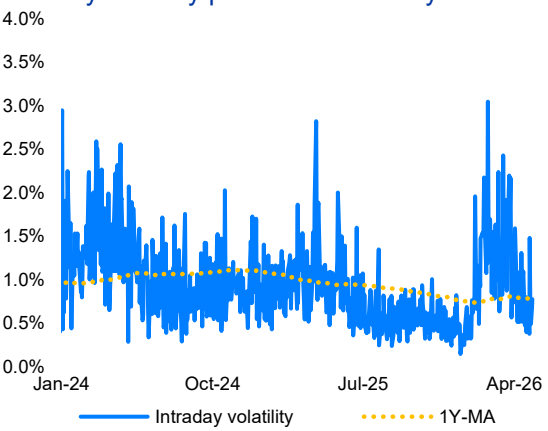
Note: Five-year forward spread of EU emission allowances, calculated as difference between front year and 5-year futures, in absolute (EUR/tCO2, left axis) and relative (%, right axis) term.
Sources: Refinitiv EIKON, ESMA.

CMR.5
Historical volatility
Volatility at two-year high in 1Q26



Note: Historical volatility of EU emission allowance prices calculated as 20-day standard deviation of daily returns. 1Y-MA= one-year moving average.
Sources: Refinitiv EIKON, ESMA.

CMR.6
Intraday volatility
Intraday volatility peaked in February



Note: Intraday volatility of EU emission allowance prices calculated following the Parkinson method. 1Y-MA= one-year moving average.
Sources: Refinitiv EIKON, ESMA.

Auctions

Summary

In 2025, 589 million emission allowances were auctioned, a slight decrease of 2% compared to the previous year. Despite the lower volume, total auction revenues rose by 11% to EUR 43 billion, driven by higher prices. All auctions were oversubscribed with a cover ratio of 168% and 24 auction participants on average. As in the previous years, firms without direct compliance obligations were the main actors in the primary market and more than half of auctioned EUAs were bought by entities domiciled in Germany. Volumes remained significantly concentrated across a few market participants with almost 90% of EUAs acquired by only 10 firms.

Volumes remained stable

After an increase from 2023 to 2024, auction volumes held steady in 2025, driven by the continued frontloading of auction supply under the EU's REPowerEU programme[2].

Over the year, a total of 589mn emission allowances were auctioned via the European Energy Exchange (EEX), generating revenues of approximately EUR 43bn. This represented a 2% year-on-year decrease in the **number of allowances** auctioned and an 11% increase in auctioned value due to higher prices.

In total, 213 auctions were held in 2025 – eight fewer than in 2024 – reflecting the discontinuation of auctions for European Aviation Allowances. The average monthly turnover stood at 49mn EUAs, equivalent to EUR 3.6bn. Auction volumes were lowest in August and December, reflecting the typical reduced market activity during the summer and year-end holiday periods (CMR.7).

Oversubscribed auctions despite limited participation

Auctions in 2025 attracted an average of 24 **participants** per session, with 18 bidders successfully securing allowances – unchanged from 2024 (CMR.12). The share of bids [3] executed remained stable at 34%. All auctions were oversubscribed, with an average cover ratio of 168%, slightly down by 4 percentage points compared to 2024 (CMR.8). Overall, these indicators suggest that primary market dynamics remained broadly unchanged.

77% of EUAs were purchased by entities without direct compliance obligations under the EU ETS[4], including 46% allocated to financial sector firms (CMR.9). It is important to note, however, that many of these firms are affiliated with or act on behalf of compliance entities. The relatively low participation of compliance entities in auctions is largely explained by limited in-house expertise, as well as the infrequent or smaller-scale nature of their EUA purchasing needs[5].

More than half of the auctioned allowances in 2025 were acquired by entities domiciled in Germany (57%), followed by the UK (15%) and Spain (11%) (CMR.10).

Concentration remains high

The primary market remained **considerably concentrated** in 2025, with only 47 active participants – just three more than in 2024 – compared to over 10,000 installations subject to compliance obligations.

As in the previous years, just ten participants accounted for almost 90% of all EUAs auctioned (CMR.11).

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2 Under the REPowerEU programme, additional auctioning proceeds of €20 billion are anticipated between 2023 and 2026, followed by an accelerated tightening of allowance supply starting in 2026.

3 An individual bid consists of a price and a quantity, and each auction participant can submit several bids.

4 Including investment firms, credit institutions and non-financial entities without any direct compliance obligation.

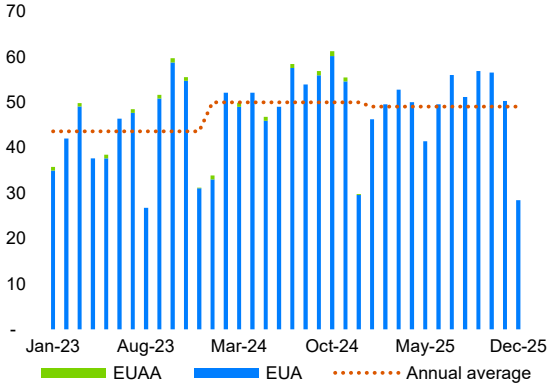
5 See Europe Economics, Participation in the EU ETS markets – A report for DG CLIMA.

Key indicators

CMR.7

Monthly auctioned volumes

49mn EUAs auctioned per month in 2025

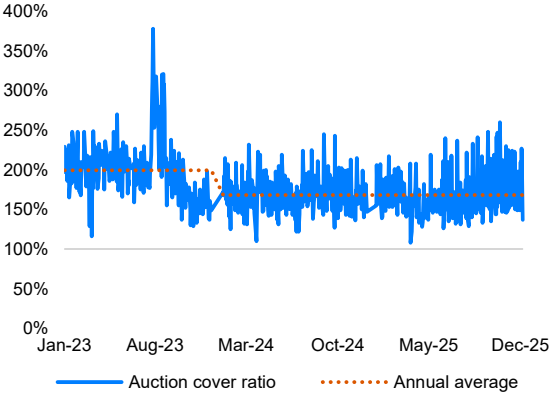


Note: Number of auctioned EU emission allowances (EUA) and EU aviation allowances (EUAA), in million.
Sources: BaFin, ESMA.

CMR.8

Auction cover ratio

All auctions were oversubscribed

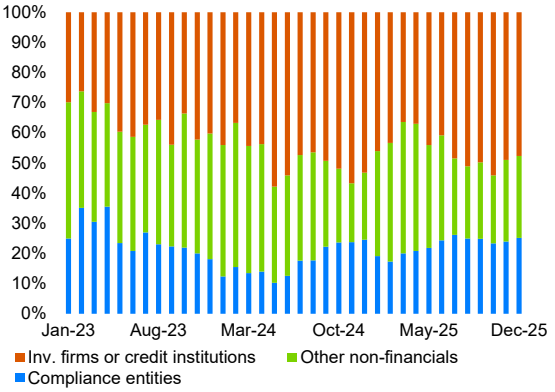


Note: Auction cover ratio for EU emission allowances.
Sources: EEX, ESMA.

CMR.9

Auction participants by sector

Most EUAs purchased by banks and inv. firms

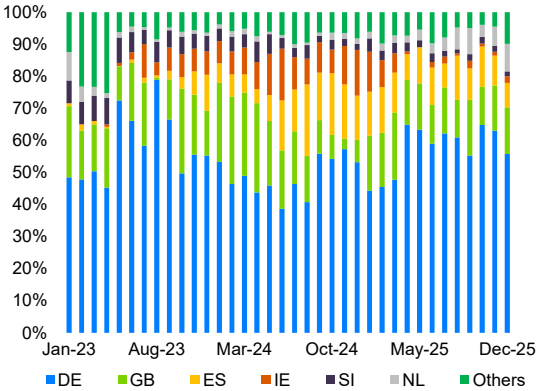


Note: Distribution of auctioned EU emission allowances by type of auction participants.
Sources: BaFin, ESMA.

CMR.10

Auction participants by domicile

German entities are most active

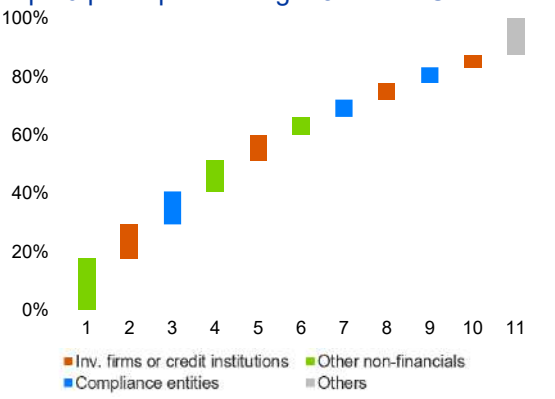


Note: Distribution of auctioned EU emission allowances by domicile of auction participants.
Sources: BaFin, ESMA.

CMR.11

Share of top 10 auction participants

Top 10 participants bought 87% of EUAs

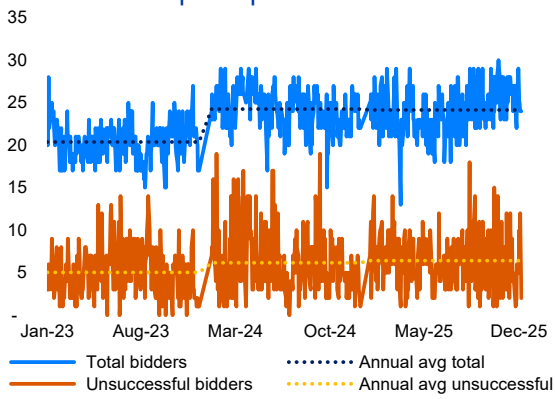


Note: 2023 data
Sources: BaFin, ESMA.

CMR.12

Number of auction participants

Stable auction participation



Note: Total number of bidders and unsuccessful bidders in auctions of EU emission allowances and annual averages.
Sources: EEX, ESMA.

Secondary markets – Trading

Summary

Trading activity in EUAs remained broadly stable in 2025 reaching a total of 13.8 bn tCO2 exchanged across 4.7mn transactions. On-venue trading accounted for 12.4bn tCO2 across 4.4mn transactions. Over the counter (OTC) transactions (number of transactions) decreased by 33%, with OTC trading volumes remaining stable at around 11% of total trading. Higher EUA prices led to an increase of monetary value traded both on venue and over the counter, totalling 685bn and 92bn respectively. Investment firms and credit institutions accounted for 62% of total trading volumes, followed by other non-financials (17%) and investment funds (16%). Futures contracts remained dominant with 73% of on-exchange and 52% of off-exchange trading volumes, while options contracts increased their share by 4pp on-venue and 9pp OTC. Volumes traded on-exchange by non-EEA entities, excluding US and UK entities, increased by 3pp, reaching a total of 1.6bn tCO2.

Stable volumes traded on exchange

In 2025, **on-venue trading** of EUA contracts remained broadly stable, reaching almost 12.4 bn tonnes of CO2-equivalent emissions (tCO2), worth EUR 685bn[6]. This volume stemmed from 4.4 million transactions. However, total monetary volumes increased by 6%, reflecting the higher EUA price levels observed in 2025.

There were two notable **spikes in trading activity**. The first occurred in April 2025, on the day of the European Commission's publication of EU ETS verified emissions; and the second in December 2025, when the most liquid futures contract expired (CMR.16 and CMR.17).

On venue trading took place mainly through **futures** contracts, making up for 73% of total trading volumes (9.1bn tCO2 or EUR 684bn). Looking at **counterparty sectors**, investment firms and credit institutions along with investment funds remained dominant, making up for 61% (7.6bn tCO2 or EUR 427bn) and 16% (2.0bn tCO2 or EUR 85bn) of trading volumes on exchange respectively (CMR.18).

Examining the **domicile** of entities trading EUAs, we observe a slight decline of 1pp for both EEA and US entities, while the share of other non-EEA entities continued to grow, increasing by 3pp (CMR. 19). More specifically, entities domiciled in Switzerland and Singapore made up for 33% (556mn tCO2) and 25% (420mn tCO2) of other non-EEA trading volumes, with commodity traders [7] (420mn tCO2) constituting the main types of participants from Switzerland.

Decline in OTC trading

In 2025, **over-the-counter (OTC)** transactions fell to 347,000, representing a 33% decline compared with 2024. Despite the lower number of transactions, total trading volume increased to 1.4 bn tCO2 (EUR 91.6 bn). This growth was driven by both higher EUA prices and an increase in the average number of tCO2 traded per transaction. The number of transactions peaked in April and December 2025, following a pattern similar to on-exchange trading (CMR.21).

Futures contracts continued to represent the main OTC trading instrument, comprising 52% of overall trading volumes (770mn tCO2). **Options contracts** gained prominence, with their share of trading doubling year-on-year to 18% of OTC volumes in 2025 (258mn tCO2; CMR.23).

Cyclical growth in open interest

Open interest in the ETS – measured as EEA30 counterparties' **gross notional amounts** in EUA derivatives – increased from around EUR 105bn in January 2025 to EUR 198bn in January 2026, (including both ETD and OTC positions). This

[6] For details of the methodology used to calculate trading volumes, see Annex.

[7] We classify commodity traders as non-financials when not being licensed as an EU investment firm under MiFID.

was driven to some extent by higher EUA prices. As in past years, this increase was not linear, since open interest peaked in December at around EUR 278bn, before the most-traded EUA futures contract expired. The share of gross notional attributable to financial counterparties amounted to 66% on average (CMR.25).

Futures remained the most prominent type of derivatives contract, in line with trading activity, amounting to 51% of open interest in 2025, followed by forwards at 30% and options at 14% (5 percentage points less than in 2024) (CMR.26). The share of open interest amounts in futures decreased, from 57% on average in January 2025 to 46% in January 2026, while forwards rose from 28% of gross notional to 36% during the same period.

Options trading

Despite their lower relative share of open interest, **on-exchange options** increased their market share in total trading relative to 2024, rising by 4 percentage points to reach 3.3bn tCO2 (EUR 732mn) or 27% of the market (CMR.17).[8] European style options in carbon markets give the holders the right (but not the obligation) to purchase/sell, only at expiry, futures contracts whose underlying asset is an EU emission allowance. These instruments allow EUA market participants to hedge against price volatility or to take positions based on expected EUA price movements.

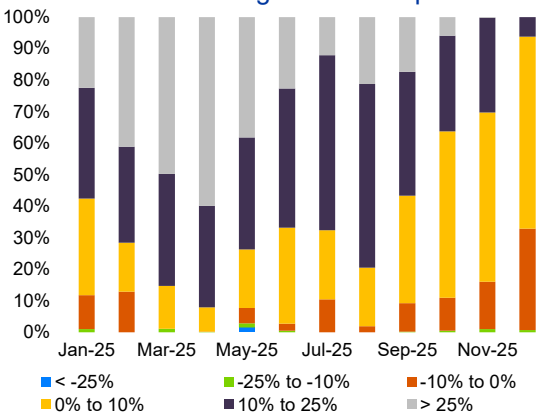
Option-based strategies include to a large extent spread bets, which involve the simultaneous purchase and sale of more than one option at different strike prices. This allows investors to gain exposure to the spread (value difference) of the two contracts rather than to the underlying instrument.

As in other options markets, **call options** purchases were predominant in 2025, making up for almost 60% of options trading volumes. Options expiring in Dec-25 were the most actively traded, accounting for over 40% of options trading volumes in 2025 (1.4bn tCO2). Options with March and December 2026 expiries saw increased activity from July onwards, indicating forward positioning by market participants.

The majority of entities trading options were from the **financial sector**, with investment firms and credit institutions purchasing approximately 1.9bn tCO2 (EUR 592mn) followed by investment funds with 890mn tCO2 (EUR 61mn). In the case of investment funds, options constituted a significant part of their trading activity, accounting for almost 45% of their trading volumes, compared with 25% for investment firms and credit institutions. Within non-financials entities segment, some commodity traders and utility firms also rely on options as part of their trading strategies.

Looking specifically at call options expiring in Dec-25, we observe that options with strike price of EUR 80 were the most traded, accounting for 22% (187mn tCO2). During the second half of the year, trading of call options with strike prices at EUR 85 or EUR 90 rose in line with the upward trend in futures' prices. On average, call options were out-of-the-money (OTM), with trading activity increasingly shifting toward at- and in-the-money positions as EUA prices rose and contracts approached expiry (CMR.13).

CMR.13
Moneyness of call options trading
Decline in OTM trading closer to expiration



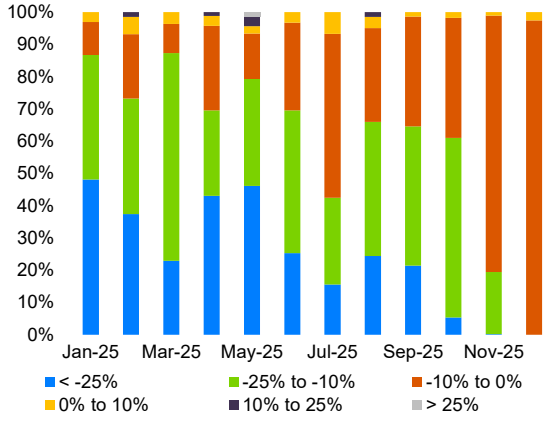
Note: Percentage difference between the strike and spot prices of December 2025 expiry call options, defined as m = (K - pt)/pt, where K denotes the strike price and pt the futures spot price.
Sources: MiFIR, ESMA

Similarly, most trading of put options expiring in Dec-25 occurred at exercise prices of EUR 70 (91mn tCO2) and EUR 75 (82mn tCO2). The moneyness profile of these options followed a pattern similar to that observed for call options (CMR.14). Purchasing OTM options generally involved lower premiums, enabling market

[8] For information on the methodology used to calculate trading volumes for options, see the Annex.

participants to hedge against upward (downward) EUA price risk that cap exposure beyond the chosen strike price.

CMR.14
Moneyness of put options trading
OTM trading declines as EUA prices rise

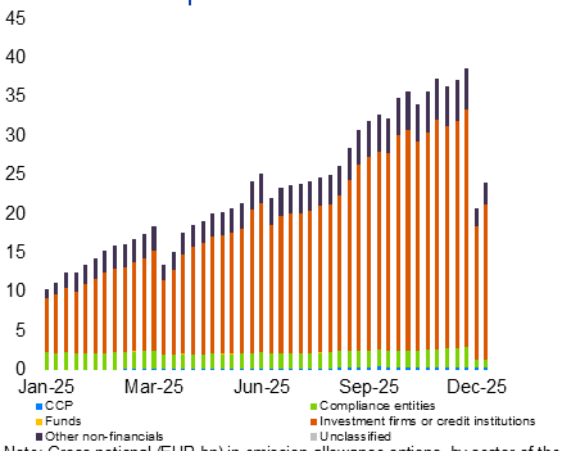


Note: Percentage difference between the strike and spot prices of December 2025 expiry put options, defined as m = (K - pt)/pt, where K denotes the strike price and pt the futures spot price.
Sources: MiFIR, ESMA

In terms of open interest, EEA counterparties held on average EUR 24bn of gross notional amounts on this type of derivatives during 2025 (i.e. 14% of total open interest in EUAs), increasing during the year until mid-December 2025. On average, 70% of these amounts corresponded to call options.

In terms of sectors, investment firms and credit institutions held on average 74% of gross notional amounts of options, followed by compliance entities and other non-financials. Their share grew throughout 2025, from 66% in January to 81% in December (CMR.15). Net positions are relatively small for both calls and options, as no sector reaches EUR 1bn net long or net short positions.

CMR.15
Gross notional amounts of options outstanding by sector
Bank share of open interest increased



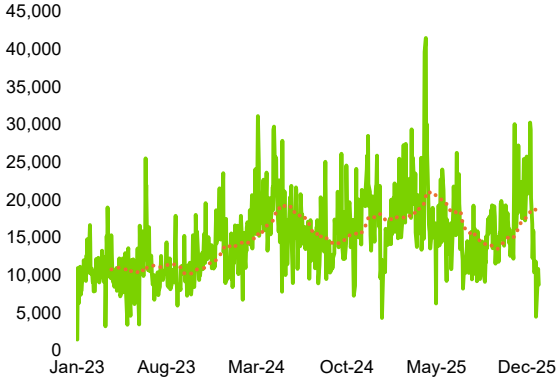
Note: Gross notional (EUR bn) in emission allowance options, by sector of the reporting counterparty. Intragroup trades excluded.
Sources: EMIR, ESMA

Key indicators

CMR.16

Daily number of transactions on exchange

On-exchange transactions peaked in April

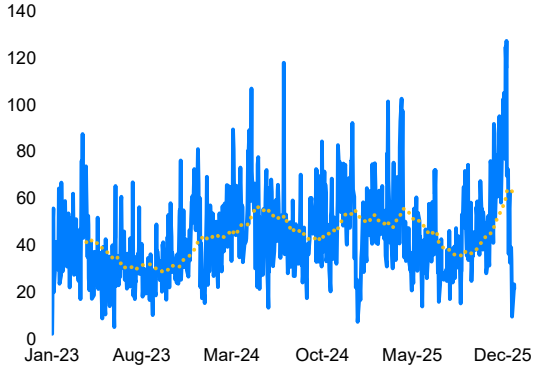


Note: Daily number of on-exchange buy transactions. 60-day moving average in orange.
Sources: MiFIR, ESMA.

CMR.17

Daily trading volumes on exchange

Volumes traded stable in 2025

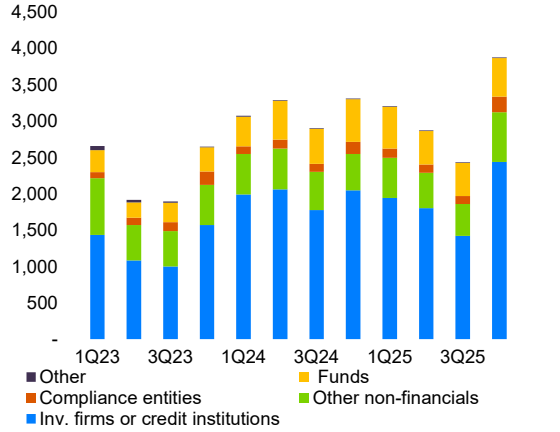


Note: On-exchange daily trading volumes in EUA derivatives, in millions of tonnes of CO2-equivalent emissions. 60-day moving average in orange.
Sources: MiFIR, ESMA.

CMR.18

On-exchange volumes by counterparty sector

Financial sector remained dominant

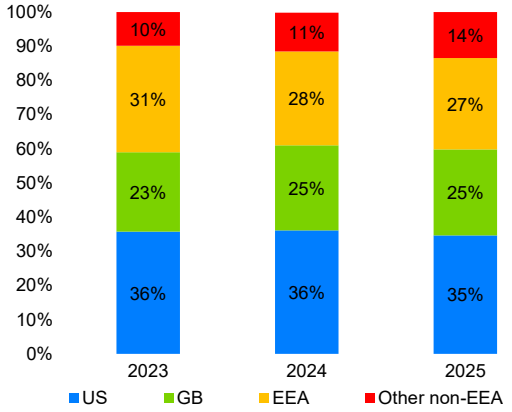


Note: Quarterly trading volumes by counterparty sector, in million of tonnes of CO2-equivalent emissions.
Sources: MiFIR, ESMA

CMR.19

On-exchange volumes by counterparty country

Increased share traded by non-EEA entities

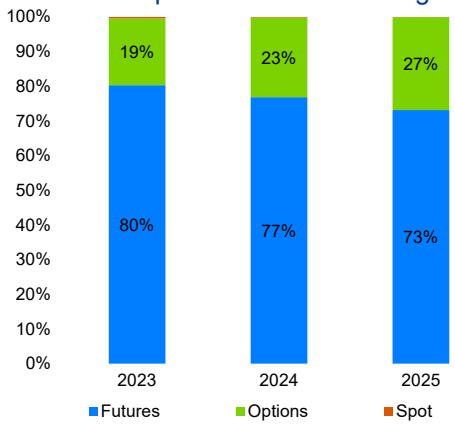


Note: Share of yearly trading volumes of CO2-equivalent emissions, by counterparty domicile.
Sources: MiFIR, ESMA.

CMR.20

On-exchange volumes by instrument type

Increase in options contracts trading

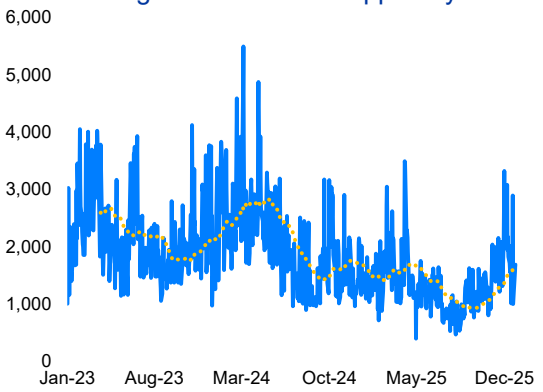


Note: Share of yearly trading volumes of CO2-equivalent emissions, by instrument type.
Sources: MiFIR, ESMA.

CMR.21

Daily number of transactions off exchange

Off-exchange transactions dropped by 33%

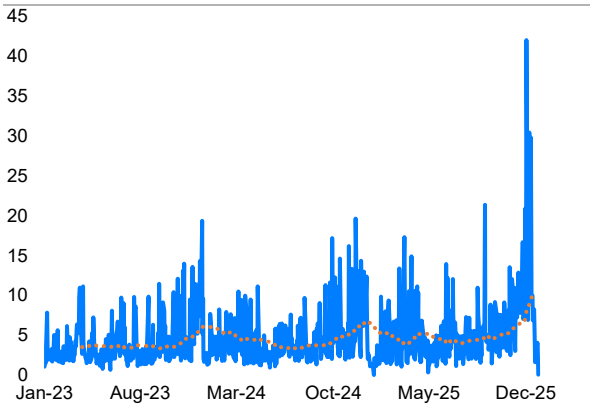


Note: Daily number of off-exchange buy transactions in EUA derivatives. 60-day moving average in orange.
Sources: MiFIR, ESMA.

CMR.22

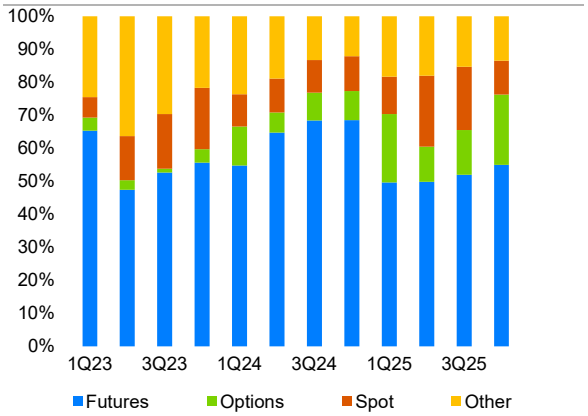
CMR.23

Daily volumes of transactions off exchange
Peaks in December



Note: Daily off-exchange trading volumes in EUA derivatives, in million of tonnes of CO2-equivalent emissions. 60-day moving average in orange.
Sources: MiFIR, ESMA.

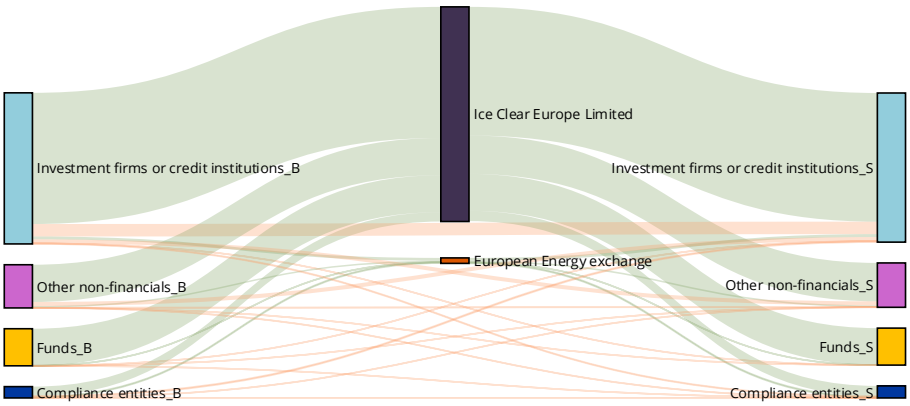
Off-exchange volumes by instrument type
Increase in spot and options trading



Note: Share of quarterly trading volumes of CO2-equivalent emissions, by instrument type.
Sources: MiFIR, ESMA.

CMR.24

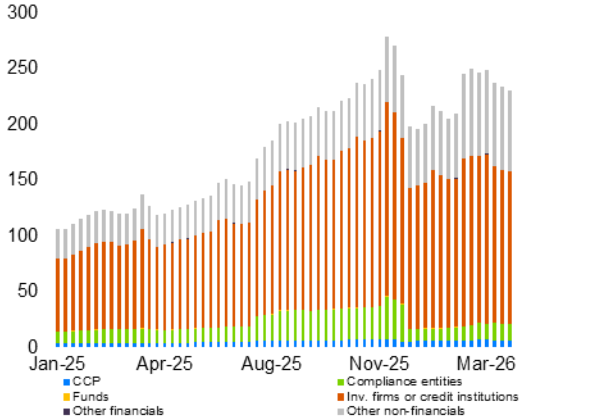
Sankey chart
Main actors: Investment firms, credit institutions, other non-financial entities



Note: Trading activity by counterparty sector on and off-exchange. Flows are proportional to tonnes of CO2 equivalent emissions exchanged. Orange lines represent off-exchange trading, while green lines are for on-exchange. _B indicates that the counterparty is in the buy leg of the transaction. _S indicates that the counterparty is in the sell leg of the transaction.
Sources: MiFIR, ESMA.

CMR.25

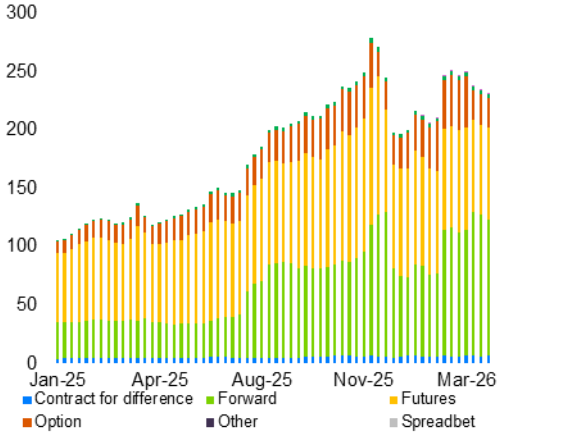
Total notional outstanding by sector
Open interest drops when Dec contract expires



Note: Gross notional (EUR bn) in emission derivatives, by sector of the reporting counterparty. Intragroup trades excluded.
Sources: EMIR, ESMA

CMR.26

Total notional outstanding by contract type
Forwards and futures account for majority of OI



Note: Gross notional (EUR bn) in emission derivatives, by contract type. Intragroup trades excluded.
Sources: EMIR, ESMA

Positions in EUA derivatives

Summary

Derivatives markets play an important role in the EU ETS by facilitating the acquisition of EUAs by compliance entities from financial intermediaries. In 2025 there were on average 917 daily derivatives position holders, including 425 investment funds holding on average around 9% of all derivative positions. The share of positions held by non-EEA entities decreased by 2 percentage points to 49%, due to a 9% increase in the number of positions held by EEA-domiciled entities.

Investment funds build long positions

Positions in EUA derivatives reflect the **annual compliance cycle** of the EU ETS. Compliance entities and other non-financials build long futures positions through the year in anticipation of the EUA surrender date the following year, with investment firms and banks acting as counterparties on the short side.

Net positioning by sector remained largely in line with last year (CMR.32), with the exception of **investment funds** which tend to track EUA price developments and continued to build net long positions into 2025, in line with expectations of tighter supply (CMR.33). Consistent with recent price developments (see p.6), the EUA positions data published by trading venues show that the number of net long positions held by funds decreased significantly in Q1 2026.

The number of **EUA derivative market participants** increased slightly in 2025, with a daily average of 917 position holders (+1% from 2024). Investment funds remained in the lead with 425 derivative position holders, down by 6% from 2024, followed by 260 compliance entities and other non-financials, and 111 investment firms and credit institutions (-1%; CMR.28).

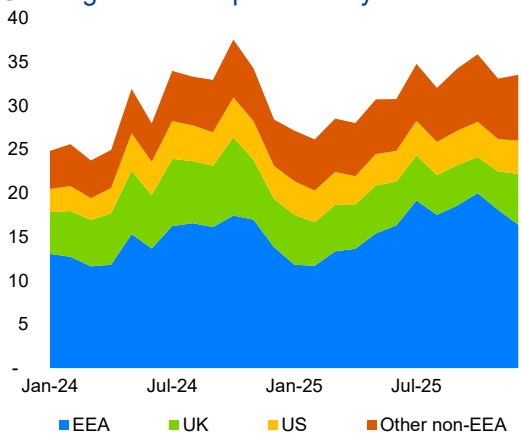
The share of EUA derivative positions held by investment funds remained limited overall in 2025 at 9% (up from 7% in 2024), highlighting the relatively small size of individual fund positions. In contrast, investment firms and credit institutions accounted for 58% of EUA derivative positions (CMR.31).

The share of positions held by **third-country entities** decreased by two percentage points in 2025, to 49%. This was driven by a 9% increase in the number of positions held by EEA-domiciled entities compared with 2024. UK and US entities accounted for respectively 33% and 24% of the positions held by non-EEA entities in 2025 (CMR.27). Meanwhile, funds domiciled in the Cayman Islands, Bermuda and Singapore accounted for three fourths of fund positions.

CMR.27

Gross number of EUA derivative positions by domicile

Growing number of positions by EEA entities



Note: Monthly number of positions in EUA derivatives held in lots (1,000 allowances), by holder domicile.
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

Long-term positions rise

The number of **EUA derivative positions** outstanding peaked at 1.82 million lots in December (+5% from the 2024 peak, CMR.28). The **next-December expiry** remained the most traded contract, with up to 844,000 positions held on the Dec-25 future in November 2025.

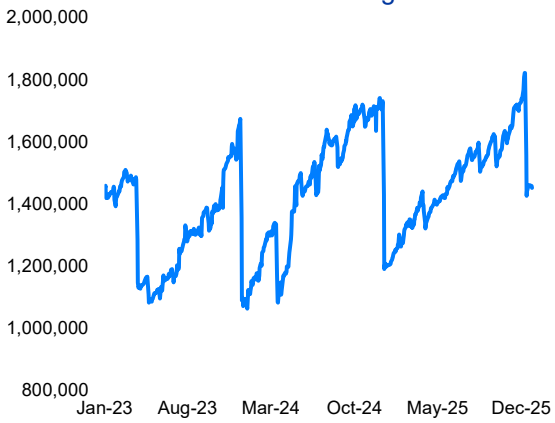
For the second year in a row, positions on the following December contracts started building up earlier during the year, with already 800,000 positions held on the Dec-26 future as at the end of 2025. A large number of market participants appear to have rolled over their positions as the Dec-25 expiry date approached rather than taking delivery of the allowances (CMR.29).

Key indicators

CMR.28

Number of derivatives positions

Positions reached new record high in December

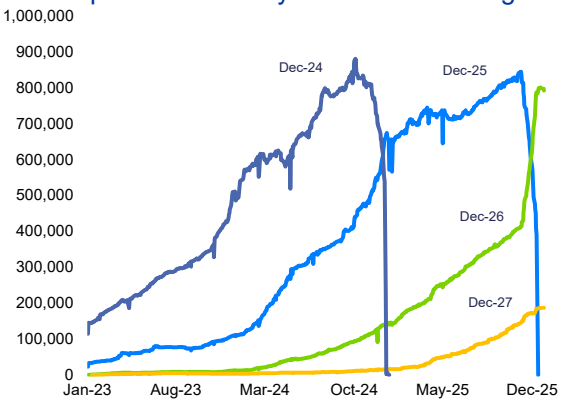


Note: Daily number of positions in EUA derivatives in lots (1,000 allowances).
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

CMR.29

Number of positions in December futures

Dec-26 positions already close to record high

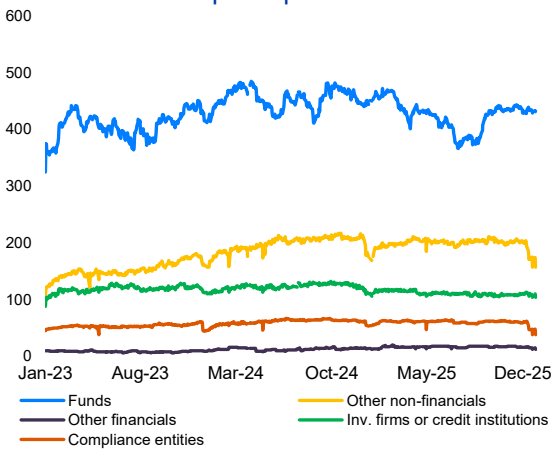


Note: Number of gross positions in EUA derivatives in lots (1,000 allowances), by contract expiry date.
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

CMR.30

Derivative position holders by sector

Stable number of participants

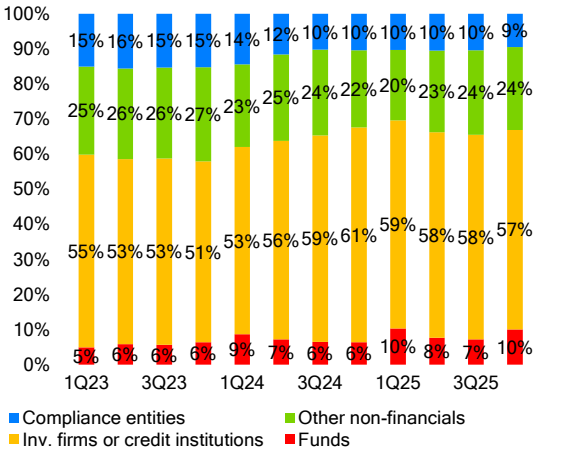


Note: Number of position holders in EUA derivatives, by counterparty sector.
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

CMR.31

Share of derivative positions by sector

Share of non-financials decreased

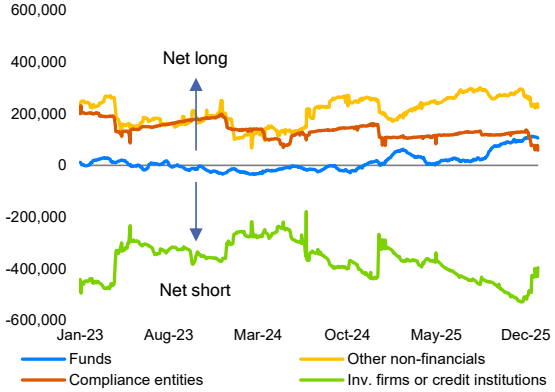


Note: Share of gross positions in EUA derivatives by counterparty sector.
Source: ICE Endex, EEX, Nasdaq Oslo, ESMA.

CMR.32

Net derivative positions by sector

Non-financials long, banks short



Note: Number of net positions in EUA derivatives held by counterparty sector, in lots (1,000 allowances).
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

CMR.33

Net derivative positions of investment funds

Funds held growing net long positions

Note: Number of position in EUA derivatives held by funds, in lots (1,000 allowances).
Sources: ICE Endex, EEX, Nasdaq Oslo, ESMA.

Conclusion

Monitoring

Overall, the analysis has not unveiled any significant issue in the transparency and integrity of EU carbon markets. EUA auctions and trading dynamics remain largely unchanged, with the market organised in a way that facilitates the flow of EUAs from financial intermediaries to non-financial firms with compliance obligations.

The annual average price of EU emission allowances (EUAs) was EUR 74 per tonne of CO2-equivalent emissions in 2025, up 13% from 2024. Prices gradually increased during the second half of the year and reached a two-year high of EUR 90/tCO2 in January 2026. Rising EUA prices in 2025 were mainly driven by lower supply expectations from a tighter cap and reduced future auction volumes.

There were 589mn allowances auctioned on the Common Platform in 2025 (-2% from 2024), amounting to EUR 43bn – an 11% increase driven by higher EUA prices. All auctions were oversubscribed with 24 participants on average and an average cover ratio of 168%. Auctioned volumes remained significantly concentrated across only a few participants, with almost 90% of EUAs acquired by just 10 bidders.

Meanwhile, EUA trading activity remained broadly stable in 2025, reaching a total of 13.8 bn tonne of CO2-equivalent emissions exchanged across 4.4mn transactions. On-venue trading still accounted for almost 90% of all trading in secondary markets, while OTC trading receded. The total monetary value of EUAs exchanged rose by 9% compared with 2024 to EUR 777bn, due to higher EUA prices. Investment firms and credit institutions accounted for 62% of overall trading volumes – a slight decline from 2024.

Derivative markets continued to play a key role in the EU ETS by facilitating the acquisition of EUAs by compliance entities from financial intermediaries. Total open interest in EUA derivatives increased in 2025, driven mainly by futures and forwards. These contracts allow entities under ETS compliance scope to lock in prices in advance, thereby reducing cost uncertainty. Trading in futures accounted for almost three fourths of on-exchange trading, followed by options. Options trading mainly took the form of call options purchased by financials. Throughout the year, there were on average 917 daily derivative position holders, including 425 investment funds holding 9% of all positions, while investment firms and credit institutions held 58% of all positions.

At the beginning of 2026, ESMA observed some ETS market developments reflecting different market expectations for the forthcoming review of the EU ETS Directive These developments took place amid high and rising energy prices from conflicts in the Middle East, which may have impacted the trading of emission allowances in the EU. EUA spot prices declined 29% between January and March (before partially recovering), while volatility jumped to a two-year high.

Policy recommendation

The ESMA 2024 and 2025 report on EU carbon markets included a policy recommendation to improve the availability of LEIs in the Union Registry. We note that limited progress has been made so far, reflecting to some extent the non-financial nature of entities in scope of the ETS. The problem should at least be addressed for registered trading accounts since trading account holders are more active in EUA primary and secondary markets. Therefore, ESMA recommends making LEIs mandatory in the Union Registry for all trading accounts, including for the upcoming ETS2.

Annexes

Data sources

To provide a comprehensive picture of carbon markets in the EU, this report makes use of multiple data sources. The first section on price and volatility makes use of public and commercial data. The second section uses auctions data from the European Energy Exchange and collected by BaFin in accordance with Article 34 of the Auctioning Regulation.[9]

The sections on trading and on derivatives positions leverage (i) regulatory position data reported by EU trading venues under Article 58 of the Markets in Financial Instruments Directive (MiFID II), (ii) regulatory transaction data reported under Article 26 of the Markets in Financial Instruments Regulation (MiFIR), and (iii) regulatory transactions data reported by derivatives market participants under the European Market Infrastructure Regulation (EMIR). The scope, objectives and structure of the information reported under these regulatory reporting regimes differ, and the indicators featured in the report have been selected to provide readers with the most accurate depiction of secondary markets.

Where relevant, regulatory data have been enriched with external information, e.g. Legal Entity Identifiers (LEIs) from the Global LEI foundation and NACE sector codes sourced from the ECB's RIAD database.

Counterparty classification

The use of multiple regulatory datasets with different reporting scopes and contents required the development of a unique counterparty classification system. The classification mainly builds on the one used in the MiFID II weekly derivative position reports and was further refined through consistency checks between datasets and manual lookups.

Each counterparty represents an independent legal entity appearing in at least one of the datasets used, identified by its LEI and allocated to one of the categories in the table below.

Most of the report relies on the level 2 classification, while the level 3 classification represents a further breakdown of non-financial counterparties.

Level 1	Level 2	Level 3
Financial	Investment firms	
	Funds	
	Other financials	
Non-financial	Compliance entities	Utility firms
		Energy firms
		Commodity traders
	Other non-financials	Transportation firms
		Other non-financials
Unclassified		

Compliance entities thereby represent firms with compliance obligations under the EU ETS and investment firms and credit institutions must be authorised as such and are identified through public registers.[10] Investment firms and credit institutions also include equivalent third-country entities that are not directly authorised in the EU.

It is important to note that the level 2 classification is performed at a legal entity level, and corporate groups can comprise multiple legal entities classified differently. For example, "other non-financials" active in carbon markets are in many cases part of and act on behalf of a larger corporate group with compliance obligations – usually representing their dedicated trading arms. However, the category of "other non-financials" also includes commodity trading firms that do not qualify as financial firms and without compliance obligations of associated entities.

The Level 3 classification assigns a single representative category to all entities within a corporate group.[11] It also removes the divide between compliance and other non-financial companies by grouping them into one sector. For example, under the Level 3 classification, the trading arm of a utility group is classified together with the rest of the group as a utility firm.

[9] Commission Delegated Regulation (EU) 2023/2830 of 17 October 2023 supplementing Directive 2003/87/EC of the European Parliament and of the Council by laying down rules on the timing, administration and other aspects of auctioning of greenhouse gas emission allowances.

[10] See ESMA registers, EBA registers, FCA registers.

[11] Corporate groups have been identified based on public relationship data from the Global Legal Entity Identifier Foundation (GLEIF): Level 2 Data: Who Owns Whom.

Data handling

ESMA screened and cleaned the data to ensure its accuracy for analysis. Firstly, ESMA identified and removed cancelled and duplicated transactions, retaining only pertinent data. Additionally, outliers identified in the “quantity” and “price” fields, caused by misreporting, were corrected to enhance the overall quality of the dataset.

Secondly, to compute more accurate monetary values for the trading strategies involving futures and reported with price deltas, ESMA adjusted the transaction prices by using most recent values involving the same instruments.

Lastly, ESMA mapped the Classification of Financial Instruments (CFI) using either the code reported in the Financial Instruments Reference Data System reference data or in MiFIR transactions data. This mapping facilitated further analysis and classification of the different categories of instruments in compliance with the CFI ISO 10962.

OTC trading is identified through the 'Venue' and 'Transmission of Order Indicator' fields. Subsequently OTC transactions are deduplicated by buyer ID, seller ID and timestamp. This approach is also intended to partially remove the duplicate reports originating from transaction chains which could be identified (for further details on the issue of transaction chain identification, see the ESMA 2022 and 2024 reports). Total OTC trading activity is then calculated as the aggregate volumes of the corresponding transactions.

Trading volume estimates

Monetary volumes (in EUR) traded are calculated by the multiplication of price, quantity and multiplier. The multiplier is expressed in number of lots included in a transaction (1,000 for future and option contracts and 1 for spot derivatives).

The reported price varies depending on the type of derivative instruments. For futures, the agreed underlying EUA price is reported, and the monetary value therefore provides an accurate representation of the number of allowances that have been committed.

In the case of options, the price reported is usually the option premium. However, for spread bets the price reported usually corresponds to the difference between the two strike prices. Therefore, spread bets, which stem from around 13,000 transactions, have been excluded from the monetary value to avoid inconsistencies, which likely leads to an *underestimation* of the total monetary value of options traded.

On the other hand, since options give the right (but not the obligation) to buy or sell EUAs, the total volumes of options traded expressed in tonnes of CO2-equivalent emissions likely *overestimate* the actual number of emission allowances that will eventually change hands. This is particularly the case for spread bets, since a short and a long position exist at the same time and these will eventually cancel themselves out when exercised.

On-exchange transactions and trading volumes refer to the buy-side leg (since sell-side on exchange transactions mirror buy transactions and are reported separately). Hence, figures should be read as buy transactions and volumes bought.