Vontobel

Information on CO_2 Emissions Allowances

Bank Vontobel Europe AG

Digital Investing

Information on CO_2 Emissions Allowances

1. What are CO_2 emission allowances?

CO_2 emission allowances are market-based financial instruments that confer the right to emit one ton of carbon dioxide or an equivalent amount of greenhouse gases such as nitrous oxide (N2O) and fluorocarbon (HFC) in the form of so-called emission certificates. These emission certificates are traded through the European Union Emissions Trading System (EU ETS).

The total number of emission certificates issued annually is limited by the European Commission and is intended to be reduced gradually. The goal of the European Commission is to decrease the overall emissions of climate-harming greenhouse gases.

By trading CO2 emission allowances, the market establishes a price for the emission of greenhouse gases. Participation in the emissions trading is generally mandatory for companies engaged in electricity and heat generation, energy-intensive industries like oil refineries, steelworks, and the production of iron, aluminum, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and organic bulk chemicals, as well as commercial aviation within the European Economic Area.

2. Futures on Emission Allowances

Like commodities, CO_2 emission allowances can serve as underlying assets for futures contracts on commodity exchanges. A futures contract is a forward transaction that represents the expected future price of CO_2 emission allowances through these contracts. For instance, the anticipation of higher future prices for CO_2 emission allowances might indicate an expectation of more stringent climate policies by the EU. In simplified terms, higher prices for greenhouse gas emissions create incentives for companies to invest in climate-friendly initiatives, as a steady level of emissions paired with increasing CO_2 emission allowance prices would result in higher costs for businesses.

Regarding futures trading and the price of CO_2 emission allowances, the following general principles apply: Increased demand for CO_2 emission allowances typically translates into higher prices for emission rights and related futures contracts. Conversely, a shortening of CO_2 emission allowances imposed by the European Commission should have the same effect. On the other hand, reduced demand for CO_2 emission allowances or an oversupply would generally lead to a decrease in the price of emission allowances. Additionally, any other alterations related to the European Union Emissions Trading System or changes made within the framework set by the European Commission could also have (positive or negative) impacts on the price of CO_2 emission allowances and, consequently, on the futures market.

3. Underlyings and reference values for Vontobel Certificates

The underlying assets of certificates, mini futures, and warrants issued by Vontobel are not the CO_2 emission allowances themselves, but rather the **ICE ECX EUA Futures**. These futures are traded on the **ICE Endex** futures exchange, which is part of the Intercontinental Exchange (ICE) and is based in the Netherlands.

EUA Futures: An EUA (EU Emissions Allowance) Future is a standardized contract between two parties for the purchase or sale of a specific quantity of carbon units at an agreed price (known as the futures price or base price). Delivery and payment occur at a predetermined future date, known as the delivery date.

The contract is a deliverable contract, meaning that a trading party with an open position at the conclusion of trading for a contract month is obligated to deliver or receive a certain quantity of units to or from the counterparty in accordance with the relevant rules.

ECX: The European Climate Exchange (ECX) serves as a marketplace for trading CO_2 emission allowances. ECX manages the marketing of ECX Carbon Financial Instruments, which are listed and authorized for trading on the electronic platform ICE Futures Europe. Under a cooperation and licensing agreement related to the ICE ECX Future, ICE Futures Europe collaborates with ECX.

For further information about the ICE ECX EUA Future, please to the relevant futures exchange

- ICE ECX EUA Future: ICE Index
  https://www.theice.com/products/197/EUA-Futures

Deviation in Performance Possible: Since a future is a forward transaction, its performance may deviate from the performance of the corresponding CO_2 emission allowances to which the future refers. This can occur, for example, when the future is traded on the futures exchange at a premium or discount compared to the CO_2 emission allowances. Such discrepancies arise due to certain market factors being evaluated differently in the futures market compared to the spot market for CO_2 emission allowances.

Consider Roll-Over: Futures have specific expiration dates; therefore, the future serving as a reference value for a product without a corresponding maturity must be regularly replaced with a longer-term future (known as roll-over).

In the context of roll-over, a crucial factor is whether the price of the longer-term future into which the roll-over occurs is higher or lower than the price of the expiring future. In a so-called "contango market," the price of the future into which the roll-over occurs is higher than the price of the expiring future. Conversely, in a "backwardation market," the price of the future into which the roll-over occurs is lower than the price of the expiring future. Depending on the price deviation, the execution of the roll-over can adversely affect the performance of a product based on or referencing a future, even though the roll-over is typically done in a price-neutral manner while adjusting the product's features. For example, in a participation certificate, to compensate for a price deviation between the respective futures, the reference ratio in the product may be reduced or increased.

In recent years, the futures market for CO_2 emission allowances has been in a contango state (i.e., with a higher price for the longer-term future into which the roll-over occurs). As a result, the roll-over could have had a potentially adverse impact on investors in a product referencing such a future, despite the adjustments made during the roll-over process.

4. Market expectation and available products

To participate in the performance of the mentioned CO_2 emission allowance futures, various types of products, both leveraged and unleveraged, are available:

Unleveraged participation in the performance of the CO_2 emission allowance futures is possible through tracker certificates.

Additionally, different leveraged products are offered, including Mini Futures, Turbo Warrants, and Constant Leverage Certificates. These products allow for leveraged participation in the performance of the CO_2 emission allowance futures. Depending on the product's direction (Long or Short), investors can also use leveraged products to speculate on either rising or falling prices of the underlying.

The underlying of a Constant Leverage Certificate is a leverage index, which references the respective future as the reference value and reflects its performance.

Furthermore, a Constant Leverage Certificate with a leverage factor of 1 or -1, enables an unleveraged participation or inverse (i.e., short) participation.

Available products fort the following market expectations:

- **Constant rising ICE ECX EUA Future: Constant Leverage Certificate Long**
- **Rising** ICE ECX EUA Future: Tracker Certificate, **Long** Mini-Future, **Call** Turbo-Optionsschein
- Constant **falling** ICE ECX EUA Future: **Short** Constant Leverage Certificate

Sources:

- **Falling** ICE ECX EUA Future: **Short** Mini Future, **Put** Turbo-Optionsschein
- **Alternating rising and falling** ICE ECX EUA Future (sideways movement): Constant Leverage Certificate are **not** suitable; **other product types**: depending on market expectations and investment horizon

As these leveraged products are designed for participation in the rising or falling prices of ICE ECX EUA Futures, depending on the product's direction (Long or Short), they may not be suitable for periods of consistently high or low CO_2 emission prices.

Investors should particularly consider the following when investing in Constant Leverage Certificates:

- Constant Leverage Certificates are more suitable for short-term investment horizons (e.g., intraday or 1 day) and less suitable for a long-term "Buy and hold" strategy.
- The Leverage Index (underlying of the Constant Leverage Certificate) includes a financing component that reflects the costs or earnings of an investment in the underlying value and may have a depreciating effect on the certificate's value.
- An index fee is charged for the administration and calculation of the Leverage Index, which is deducted from the Leverage Index.
- Intraday Index Adjustment: To avoid a total loss, Leverage Indices are equipped with a threshold. This threshold indicates the maximum change in value of the reference instrument compared to its last valuation price. If this threshold is breached, an intraday adjustment occurs, which is equivalent to realizing the incurred losses.

Further Information

Available on our product page zertifikate.vontobel.com:

- Key Information Document
- Final Terms und Base Prospectus
- Product brochure Constant Leverage Certificates
- Derivatives Glossary: zertifikate.vontobel.com/DE/Wissen/Glossar

https://www.theice.com/products/197/EUA-Futures

https://ec.europa.eu/clima/policies/ets_en

https://ec.europa.eu/clima/sites/clima/files/docs/ets_handbook_en.pdf

https://www.theice.com/publicdocs/ICE_ECX_user_guide.pdf

https://www.theice.com/publicdocs/ICE_ECX_getting_started.pdf

https://www.eea.europa.eu/data-and-maps/data-providers-and-partners/european-climate-exchange

https://www.sciencedirect.com/science/article/pii/S0140988321003479

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