

World Carbon Fund SFDR Article 9 Climate Change Impact

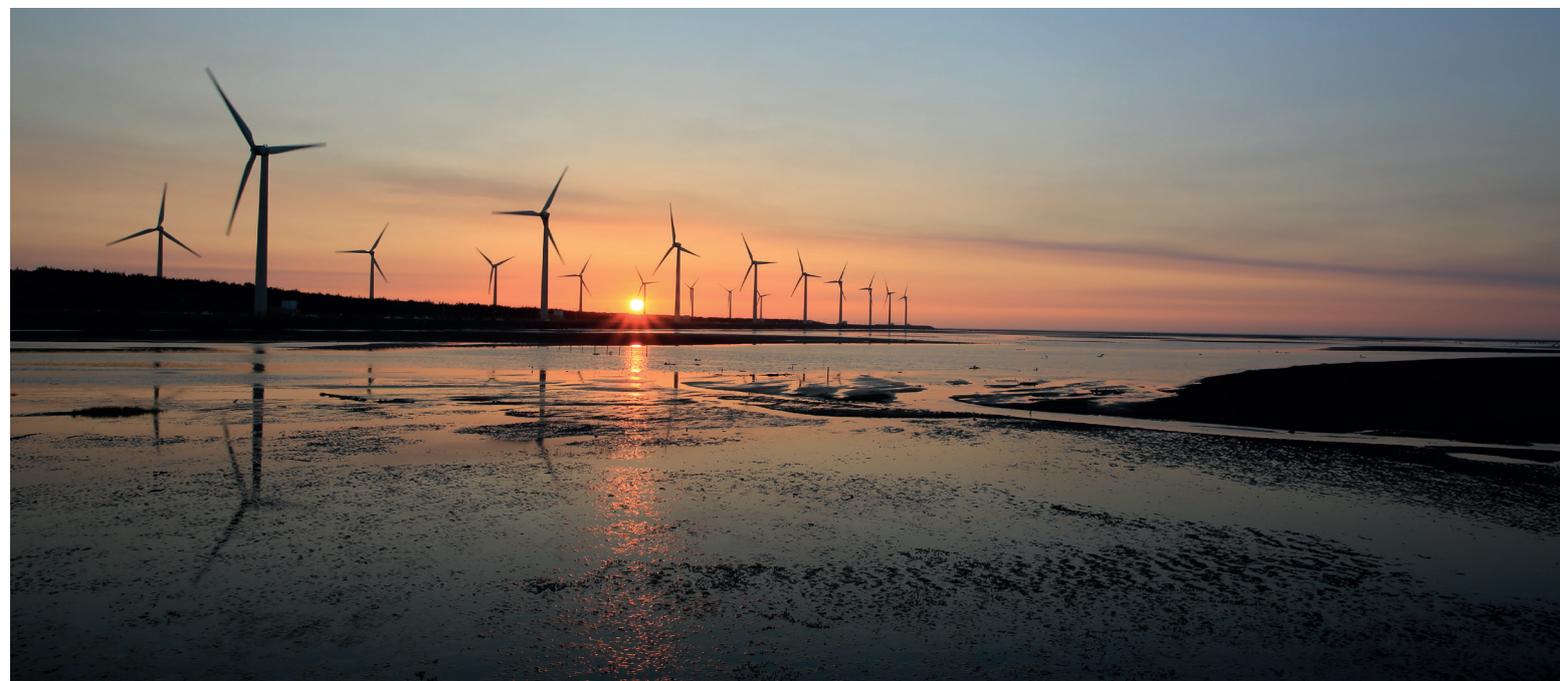
December 2021

The World Carbon Fund (WCF) seeks to contribute directly to the reduction in global GHG emissions by making long-biased investments into global compliance carbon markets.

This report discusses the multiple avenues through which the long-biased investment activities of the World Carbon Fund contributes to positive mitigation impacts in global carbon markets, focusing on five key impact areas:

Incentivising accelerated inter-temporal abatement

The WCF takes a long-term view of carbon prices based on individual market supply and demand forecasts. Buying and holding carbon in the longer-term supports the carbon markets to price-in expected future market stringency earlier. This upward pressure on prices helps bring forward inter-temporal abatement by incentivising compliance entity investments into emissions reductions sooner rather than later. Various studies have supported the existence of this dynamic, whereby long-term investors help provide long-term policy credibility and support mitigation investments, particularly within a context of substantial market surplus as has been the case in all carbon markets in which the WCF invests (Neuhoff & Schopp, 2013; Schopp et al., 2015).



Price discovery and volatility dampening

Carbon markets are volatile. The average long-term (36-month) daily volatility across the five carbon markets in the WCF portfolio is around 30%, or double that of traditional equity markets. This volatility has several sources, ranging from policy uncertainty to spill-over effects from wider energy and power markets to unexpected weather events (Mansanet-Bataller et al., 2007; Zhang & Sun, 2016; Zhu et al., 2019). However, excessive carbon price volatility can harm efficient mitigation by raising uncertainty and inhibiting industrial investment into carbon-reducing technology (Acworth et al., 2017; Laing et al., 2013). The WCF takes a fundamental value approach to investing into carbon and this contributes to supporting efficient price discovery and dampening volatility across the markets in which the fund invests. This is achieved as the fund endeavours to buy (sell) allowances when carbon prices fall below (above) our fair value forecasts, which contributes to smoothing price progression and reducing market volatility.

Market efficiency: liquidity and risk management

As with all commodity markets, derivatives trading provides several benefits that help improve market efficiency such as allowing compliance entities to cost-effectively manage their carbon risk; providing firms indirectly exposed to carbon an avenue to hedge their financial exposure to carbon; and increasing market transparency through the provision of forward information (ISDA, 2021). The WCF is active in the carbon derivatives markets and supports market efficiency and risk management by providing consistent injections of liquidity into the markets

World Carbon Fund SFDR Article 9 Climate Change Impact

December 2021

Keeping emissions out of the atmosphere

As described in point 1, holding physical allowances in any carbon market directly contributes to emissions reductions for as long as those allowances are held. At present, physical allowances are held in relation to both the RGGI and New Zealand carbon markets. It is planned to increase the proportion of the WCF invested in physical allowances such that up to 50% of the NAV is so invested. In relation to the EU ETS there is a market mechanism (known as the Market Stability Reserve) which withdraws additional market supply as a function of the total market surplus and eventually permanently invalidates allowances kept in the reserve above a threshold level (European Commission, 2021; Quemin & Trotignon, 2019). Currently every 100 tonnes of physical EUAs held by the WCF gives rise on an annual basis to the Market Stability Reserve removing 24 tonnes of allowances from supply.

Direct mitigation through cancelling allowances/offsets to the value of 20% of Fund performance fees

The Investment Manager has committed that 20% of the performance fees paid by the WCF shall be used to buy carbon allowances and/or high quality carbon offsets and to permanently cancel these. Such cancellation means that an equivalent volume of metric tonnes of CO₂e emissions are permanently taken out of the system and may no longer be emitted by compliance entities (allowances) or carbon emissions have been prevented or removed (offsets).



References

- Acworth, W., Ackva, J., Haug, C., Montes De Oca, M., Fuss, S., Flachsland, C., Koch, N., Kornek, U., Knopf, B., Edenhofer, O., & Burtraw, D. (2017). Emissions Trading and the Role of a Long-run Carbon Price Signal: Achieving Cost-effective Emission Reductions under an Emissions Trading System.
- European Commission. (2021). Market Stability Reserve. https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/market-stability-reserve_en
- ISDA. (2021). Role of Derivatives in Carbon Markets. <https://www.isda.org/a/soigE/Role-of-Derivatives-in-Carbon-Markets.pdf>
- Laing, T., Sato, M., Grubb, M., & Comberty, C. (2013). Assessing the effectiveness of the EU Emissions Trading System (No. 106). <http://www.lse.ac.uk/grantham>.
- Mansanet-Bataller, M., Pardo, A., & Valor, E. (2007). CO₂ Prices, Energy and Weather. *The Energy Journal*, 28(3), 73–92. <https://doi.org/10.5547/ISSN0195-6574-EJ-VOL28-NO3-5>
- Neuhoff, K., & Schopp, A. (2013). The Role of Hedging in Carbon Markets Background on EU Emissions Trading Scheme. Berlin Conference on Electricity Economics. https://www.diw.de/documents/dokumentenarchiv/17/diw_01.c.429386.de/neuhoff_belec2013_carbon_markets_session.pdf
- Quemin, S., & Trotignon, R. (2019). Emissions trading with rolling horizons (No. 316). www.ccepe.ac.uk
- Schopp, A., Acworth, W. W., Huppmann, D., & Neuhoff, K. (2015). Modelling a Market Stability Reserve in Carbon Markets. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.2616333>
- Zhang, Y. J., & Sun, Y. F. (2016). The dynamic volatility spillover between European carbon trading market and fossil energy market. *Journal of Cleaner Production*, 112, 2654–2663. <https://doi.org/10.1016/J.JCLEPRO.2015.09.118>

Disclaimer Carbon Cap Management LLP is an appointed representative of Thornbridge Investment Management LLP which is authorised and regulated by the Financial Conduct Authority (“FCA”) in the United Kingdom and appears on the FCA register under no. 713859. Thornbridge Investment Management LLP is also registered as a Commodity Pool Operator with the Commodity Futures Trading Commission and a Member of the National Futures Association under ID 0534444. Source for all figures: Carbon Cap based on data from ENTSO-E, ICE & Bloomberg data.