IIGCC

Derivatives and Hedge Funds Guidance

Contents

Acknowledgements

The development of this Guidance on Derivatives and Hedge Funds has been led by **Valentina Ramirez** at IIGCC. We are grateful to the IIGCC Derivatives and Hedge Funds working group co-leads **Keith Guthrie**, Cardano and **Victor Neamtu**, LGT Capital Partners, and all the other participant members of the Derivatives and Hedge Funds Working Group for steering and/or contributing to the development of this Derivatives and Hedge Funds Guidance. We would also like to thank members of all PAII Network Partners (IIGCC, AIGCC, IGCC, CERES) who provided valuable feedback.

Disclaimer

Introduction – The Net Zero Investment Framework

The Net Zero Investment Framework (the Framework/NZIF) provides guidance for asset owners and asset managers to measure and manage their individual portfolios towards the goal of achieving global net zero emissions by 2050 or sooner. It originally covered four asset classes (listed equity, corporate fixed income, sovereign bonds, and real estate), and it has since been complemented with further guidance for infrastructure, and private equity.

Neither derivatives nor hedge fund holdings constitute an asset class. Derivatives are financial instruments that offer indirect exposure to an underlying asset class, a portion of the market, or a specific security. Hedge funds are vehicles that offer a variety of investment strategies across different asset classes. Hence, this guidance is not target-driven; it expands NZIF by providing concrete recommendations on how investors can report real-economy impact of derivatives, short-selling strategies, and hedge fund holdings.

This guidance was created to support investors to include derivatives and hedge fund holdings within their net zero commitments, targets, and strategies. It also provides guidelines to hedge fund managers on how to report on real economy impact of their holdings to better support net zero investment strategies.

In May 2022, IIGCC published a discussion paper examining the role derivatives play in influencing the transition to net zero, and suggesting ways in which they can be accounted for when assessing portfolios' net zero alignment. The paper was open for consultation and the response from investors was subsequently published. The recommendations offered in the discussion paper have been revised in this guidance.

Currently, there is not a widely accepted standard for apportioning emissions associated with derivatives and short positions. Disagreement among investors and hedge fund managers persists as to how to best account for the role that derivatives and shorts play in net zero investment strategies. While some suggest attributing emissions associated with derivatives and shorts based on economic exposure (i.e., using a net carbon metric), this guidance holds that, to achieve maximum real-economy emissions reductions, economic exposure should not be conflated with net zero alignment. While a net-carbon metric shows the exposure to carbon risk, it is less useful for tracking real-economy decarbonisation. The guidance set out in this document are intended to maximise real-economy emissions reductions towards the goal of net zero alignment in line with NZIF, and as such they do not provide any recommendations for risk reporting. Subsequent efforts by the industry – such as potential standards by the Partnership of Carbon Accounting Financials (PCAF) – will be assessed and potentially integrated.

Investors implementing NZIF are encouraged to use this guidance when reporting on the progress of their net zero commitment initiatives. The Derivatives and Hedge Funds component set out below is designed to be integrated with the broader recommendations of the framework. The framework's components apply across an entire portfolio, or at firm level and should be part of a comprehensive approach to investor action – spanning governance, strategic asset allocation, policy advocacy and stakeholder engagement – which is not reproduced here.

1 Context – Analytical issues to be considered

Derivatives

Derivatives are financial contracts between two parties that allow investors to gain from the performance of an underlying asset (e.g., stocks, bonds, commodities, currencies) without directly owning it. By offering indirect exposure to an asset, derivatives provide a cost-effective tool to manage risk, speculate on price movements, or engage in leveraged trades. They cover a very wide range of potential contract types and asset classes. Their complex, heterogenous, and evolving nature explain why this guidance does not cover them all.

Asset classes covered – This guidance covers equity and credit, as well as Exchange Traded Funds (ETFs) and other financial instruments that offer exposure to these underlying asset classes. IIGCC's derivatives working group will assess the relevance of extending the analysis to the use of derivatives in other asset classes, such as commodities, and complement the guidance in due course.

Types of derivatives – The guidance applies similarly to all types of derivatives (futures, forwards, options, and swaps). To inform on the exposure of options contracts, reporting should be done on a delta-adjusted basis, while notional values should be considered for futures, forwards, and swaps contracts. In the case of swaps, if the notional does not fully reflect the underlying exposure, the guidance recommends reporting on the latter.

Net zero materiality of derivatives, collateralised positions, and shorts

Some derivatives allow investors to enter into agreements to either buy or sell an underlying asset at a predetermined price and future date, enabling them to profit from changes in the asset's price without directly owning it. In the context of derivatives, a short position refers to a situation where the investor expects to make a gain if the price of the underlying asset will decrease. This is the opposite of a long position, in which the investor expects to make a gain if the price of the underlying asset will rise.

Short selling, on the other hand, is a trading strategy (often used by hedge funds) that involves selling an asset that the seller does not currently own, with the expectation to repurchase it at a lower price in the future. In short selling, the investor borrows the asset from a prime broker, or a direct owner of the asset, and sells it on the market, hoping that the price of the asset will decline in the future. If the price of the asset drops, the investor can repurchase the asset at a lower price and return it to the broker/original owner, profiting from the difference. If the price goes up the short seller incurs a loss, as they need to repurchase the asset at a higher price to return it to the broker/original owner. Both, short selling and holding short positions, involve taking positions against the underlying asset and are referred to as 'shorts'.

Prime brokers often facilitate collateralised borrowing of capital to purchase leveraged long positions in securities. The collateral for these loans typically consists of the proceeds of short sales, or of shares owned by the hedge fund, which are then re-registered in the prime brokers name rather than the hedge fund's account, and which the prime broker can rehypothecate for their own uses.

Given that derivatives (providing either long or short exposure), collateralised long positions, and short selling with prime brokers do not involve direct ownership of an asset, they do not carry directly attributed GHG emissions or the usual ownership rights. However, they are tied to underlying assets like stocks or bonds, which do have associated emissions linked to the activities of the issuer.

In general, apart from their relatively low Scope 1 and Scope 2 GHG emissions originating from their operations, financial investors (whether investing directly or through derivatives) do not generate new GHG emissions themselves; the companies in which they invest do. Financial investors can influence the behaviour of the companies or assets they invest in through several channels:

Direct cash provision	Stewardship and engagement	Influence via cost of capital	Influence of the ecosystem
Providing fresh capital to a company in the form of debt or equity at primary issuance, directly financing the business. This can be described as very direct and highly influential form of impact.	Ownership of securities – whether purchased in the primary or secondary market – allows the owner to: Engage with the management of the company, either individually, or collectively (e.g., through Climate Action 100, or the Net Zero Engagement Initiative) to discuss their business strategy. Hold ownership rights. For stockholders, these include the ability to file a shareholder proposal, vote on proposals at the Annual General Meetings (AGM), and vote for the appointment of directors and auditors. Bondholders have the right to enforce covenants or sit on a creditors committee in the event of a default.	Secondary markets continually adjust prices to meet the supply (selling) and demand (buying) for securities. Changes in security prices in the secondary market can influence the ability of a business to raise new capital in debt or equity markets, buy back its shares, and incentivise its managers.	This may involve working with regulators, industry organisations like IIGCC, AIGCC, IGCC, Ceres[1], or other players beyond the company, to help influence the compulsory or voluntary standards that can encourage climate action.

All the potential channels of influence are open to investors who own securities in the public markets (i.e., direct, or physical exposure). By contrast, when investing through derivatives, prime brokerage positions and short sales (i.e., synthetic, or indirect exposure and short exposure), the potential to influence real economy emissions reductions derives from their indirect influence on market dynamics and the potential implications on the cost of capital of a company.[2]

1 Visit Ceres' report on Derivatives & Bank Climate Risk here.

2 Whether obtained directly or through derivatives, long positions can reduce the cost of capital by driving up the demand for an asset. Conversely, short positions increase the asset's supply, thereby having the potential to raise the company's cost of capital. In specific instances, when significant short positions are made public and on a large scale, they could generate negative sentiment or expose questionable corporate behaviour and increase the cost of capital.

Although derivative transactions and secondary market transactions have almost identical effects on the cost of capital -due to the market arbitrage mechanisms linking the derivative and secondary markets-, derivative or synthetic investments do not directly supply cash to the company, and do not grant the rights associated with ownership.

The wider effects of the cost of capital accumulate over time through the collective buying and selling of millions of investors. In the long run, a company's cost of capital can affect its ability to reinvest, which in turn can affect its ability to transition or invest in new capabilities to remain competitive. However, the impact of a specific transaction on a company's cost of capital cannot be determined with precision; it depends on several confluent and changing factors (company's health and maturity, size of the position relative to the market capitalisation, liquidity of the asset, market momentum, economic sector, etc). Given the indirect nature of this form of influence it is usually very difficult to attribute outcomes to individual investor behaviour and therefore report on them.[3]

NZIF recommends that investors consider all channels of influence towards their individual net-zero alignment goals, and report on the use of these with full transparency. Where possible, investors should seek to combine the use of derivatives to maximise the net zero real economy impact of an investment strategy.

Hedge funds and counterparties

Hedge funds may combine traditional long investment in securities with leverage, short selling, and the use of derivatives to target specific outcomes, such as higher return, directional bets, and lower volatility. Prime brokers act as key intermediaries in the derivatives and stock lending market. They can support hedge funds and institutional investors with trade execution and clearing, margin financing, securities lending and borrowing, as well as risk management and reporting.

The same concepts and recommendations that apply to derivatives extend through to many hedge fund strategies, whether these make direct use of derivatives, short selling, or achieve their exposures through equivalent mechanisms provided by prime brokers.

The guidance includes covering the financing typically provided by prime brokers to hedge funds where the prime broker holds positions on behalf of the hedge fund. In this case the prime broker facilitates the hedge fund to obtain indirect exposure to the underlying security. The purchase or sale of the security has the same influence on the price as a derivative would have (via the market arbitrage mechanism), and as is the case for a derivative, the hedge fund does not become the official registered owner of the security, so does not have voting rights.

3 The length of time an investor holds a security is also related to their ability to claim/attribute impact in the cost of capital. An investor who buys a security one day only to sell it the next is not exerting any long-term influence on the cost of capital.

This guidance recommends each investor consider their own financial position, whether this is reached directly or indirectly through the prime broker, irrespective of the actions of the counterparties down the value chain. In other words, it advises against attempting to net derivative exposure across the financial markets value chain. For example, if party A enters into a derivative position with party B, party B then might choose to hedge their exposure with a direct investment in the underlying, or they may choose some other method of hedging. Party A and Party B should report based on their own financial positions.

In line with NZIF, this guidance recommends attributing GHG emissions of securities owned by investors following the financed emissions standard by the Partnership for Carbon Accounting Financials (PCAF). Additionally, this guidance recommends taking their associated emissions into account when assessing the net zero alignment of an investment strategy, as well as when setting net zero targets and taking actions to achieve them (See Section 2).

2 Reporting derivatives across NZIF

NZIF's recommendations on Governance & Strategy, Objectives & Targets, Strategic Asset Allocation, Asset Level Assessment & Targets, Stakeholder and Market Engagement, and Policy Advocacy, do not change when investing in derivatives or hedge funds (see figure 1).

Additional obligations reflect the need to separate financial risk exposure from portfolio net zero alignment. This will require investors to: i) disclose how their derivatives and hedge fund investments affect real economy emissions under the *Strategic Asset Allocation* component, and ii) explain the actions that will drive real economy emissions reductions under the *Asset Class Alignment* component.

Figure 1. Net Zero Investment Framework

Portfolio / Fund level	**Governance and Strategy**	Sets ambition towards global net zero emissions, provide direction and basis for action	Sets internal directions and portfolio structure for alignment
	Objectives	Defines anticipated progress in emissions reduction and increasing investment in climate solutions	
	Strategic Asset Allocation	Defines asset allocation to support an individual investor to achieve net zero alignment goals alongside risk/return objectives	
Asset Class level	**Asset Level Assessment & Targets**	Drives real economy emission reductions by aligning investments through asset selection, management and engagement	Shifts alignment of assets to meet goals
External	**Stakeholder & Market Engagement**	Encourages asset managers/clients to make net zero alignment goals and market actors to provide data, tools and advice that underpin net zero investment strategies	Influences external environment to facilitate alignment
	Policy Advocacy	Encourages policy environment to support decarbonisation and climate solutions, increasing ability to implement a net zero investment strategy	

Source: IIGCC

Strategic Asset Allocation – Measurement and disclosure

The *Strategic Asset Allocation* component of NZIF, defines asset allocation at the portfolio level to support investors to achieve net zero alignment goals alongside risk/return objectives. This component invites investors to integrate standard financial objectives with climate change objectives. This requires the measurement and disclosure of how their derivatives investments affect real economy emissions.

Derivatives in emissions reporting. This guidance recommends investors report separately:

- **Financed Emissions** – attributed emissions from companies that the investor owns securities directly and can influence, whether purchased through secondary or primary markets.
- **Long Associated Emissions** – associated emissions from companies where long exposure is gained via prime brokers or derivatives.
- **Short Associated Emissions** – associated emissions from companies where short exposure is gained via prime brokers or derivatives.

Importantly, this guidance recommends that **both long direct exposures and long indirect exposures should target net zero by 2050, in line with NZIF recommendations.** Notably, long and short emissions should not be aggregated/netted, neither under the financed emissions nor under the associated emissions leg. Asset Managers and Hedge Fund Managers can choose to additionally report the aggregate of the direct and indirect long exposures, but they should ensure they also report them separately.

Figure 2. Summary of suggested reporting and examples

Unit	Explanation	Long Direct Exposure (physical/cash securities)	Long Indirect Exposure (derivatives)	Short Exposure
NAV (reporting currency)	Net asset value (NAV) is the value of a portfolio's assets minus the value of its liabilities.	**£ 1 million**	**£ 2 million**	**£ 0.5 million**
		Financed Emissions (Attributed emissions)	**Long Associated Emissions** (Emissions from exposure gained via prime brokers or derivatives)	**Short Associated Emissions** (Emissions both through short selling and short derivatives)
GHG emissions (Tons CO2 equivalent)	Sum of carbon footprints of portfolio positions	**1,000 tCO2e**	**2,300 tCO2e**	**400 tCO2e**
Weighted Average Emissions Intensity (Tons CO2 equivalent/ reporting currency)	The weighted average of individual company carbon intensities (e.g., Emissions/EVIC), weighted by the proportion of each position in the portfolio	**8.2 tCO2e/£ million**	**7.5 tCO2e/£ million**	**9.0 tCO2e/£ million**

Metrics – NZIF recommends reporting absolute and intensity emissions metrics, with a preference for Enterprise Value Including Cash (EVIC) over revenue denominators, when computing intensity metrics for equity and credit positions.

Scope of emissions – In line with NZIF, monitoring and disclosure of portfolio emissions, as well as portfolio emissions reduction targets, should include Scope 1 and Scope 2 emissions and material Scope 3 emissions. Scope 3 emissions should be disclosed separately, and any targets should be set and reported on separately given measurement and aggregation challenges.[4]

Frequency of reporting – Emissions would usually be reported at the end of a reporting period consistently across asset classes, and on an average basis when relevant.

4 In 2024, IIGCC will provide more detailed guidance on the recommended treatment of Scope 3 emissions within investment portfolios. This is likely to include helping investors understand materiality of Scope 3 emissions, recommendations for measurement, disclosure and target setting, and levers to influence a reduction in Scope 3 emissions.

Hedge funds should make best efforts to provide information to investors. The following are **alternative reporting approaches in particular circumstances,** recognising some of the challenges they face when implementing the guidance:

Leveraged Exposure

Derivatives are inherently leveraged instruments; they allow investors to gain exposure to a larger position with a smaller amount of capital invested. This can magnify both the potential profits and the potential losses, rendering derivatives a suitable product only to experienced investors.

As leveraged trades amplify trading positions, levered exposure can have a multiplicative impact on the 'Long Associated Emissions' as defined above. From a cost of capital perspective, £500 worth of long derivatives exposure supported by £100 of collateral is the same as £500 of secondary market exposure fully funded, i.e., their influence via cost of capital is identical. However, the stewardship channel of influence would be negligible for the £500 derivatives exposure, compared to a situation in which the securities were owned. Given the indirect nature of this channel of influence, the net effects or influence on the real economy of the £500 derivatives exposure are uncertain.

In such cases, from the emissions perspective, the guidance recommends apportioning the emissions resulting from the £500 derivatives or synthetic exposure as 'Long Associated Emissions'. These would be attributable towards the investor/owner of record of the position whether the exposure is reached directly or indirectly through the prime broker, and irrespective of the actions of the counterparties down the value chain. The £500 derivatives exposure do not carry direct ownership of the asset hence such emissions are not directly attributed to the investor. With respect to the collateral, investors are expected to report on the emissions linked to any collateral owned and posted, but they are not expected to report on the emissions associated with the collateral received. If this collateral is in the form of cash, investors should apply their methodology to account for emissions linked to cash holdings, or ignore in the absence of one. IIGCC is working towards a methodology to account for emissions linked to cash.

Data limitations when separating indirect and direct exposures

Some standard hedge fund reporting tools do not allow for them to report which positions are directly owned and which are indirect via a prime broker. In this case, the guidance recommends reporting gross long exposure up to 100% of the portfolio NAV as 'Financed Emissions', and gross long exposure above 100% as 'Long Associated Emissions', apportioning the average carbon exposures for the gross long exposure across both. The reason behind this recommendation is to be conservative in the absence of complete information, by assuming that 100% of NAV exposure is owned by the hedge fund.

This approach presents challenges for reporting carbon intensities. In such cases, maximising transparency is key; the Guidance recommends the hedge fund discloses and explains any data gaps and the assumptions made when reporting. Equally, in such cases, hedge fund managers should provide sufficient detail regarding the approach taken to voting and engagement, highlighting, for example, if the fund was unable to vote on certain aspects of its holdings because they were registered with the prime broker. Investors are invited to engage with prime brokers and data solutions providers to provide them with all the information that will make this classification possible.

Multi-manager allocators with decarbonisation targets

Allocators across multiple managers can run into a challenge with leverage when aggregating exposure across multiple managers. Decarbonisation targets for capital allocators/fund managers do not typically take account of managers who use leverage, and leverage can vary substantially over time. For these allocators the recommendation is to:

1. Aggregate 'Financed emissions', and 'Long Associated Emissions' of each manager
2. Rescale fund exposures to 100% of NAV. If this results in a leveraged position, rescale this back to 100% of the NAV of the portfolio for that manager, attributing the exposure in proportion to the 'Financed emissions' and 'Long Associated Emissions'. This is done by applying the following formula for each direct and indirect long exposure for each manager: manager exposure/manager gross long exposure * 100
3. Rescale fund emissions: Aggregate the resulting 'Financed emissions' and 'Long Associated Emissions' (with no manager totalling more than 100% of their exposure) across the portfolio. Rescaled fund emissions=Rescaled fund exposure x manager carbon intensity.
4. Publish the absolute alongside the scaled numbers.

This does not mean that any single fund with leverage should scale back to 100%. This strategy is only to be applied when aggregating multiple managers and should not be applied to non-equity and credit exposure.

High turnover and low influence strategies

Some high turnover strategies (e.g., high frequency trading strategies focused on liquidity provision) might have a negligible real-economy decarbonisation influence; thus, they may be excluded from metrics calculations. Members applying NZIF are expected to implement or explain the reasons behind non-implementation. The decision to exclude some strategies from the metrics should be disclosed and the rationale explained.

Asset Level Assessment and Targets – Additional metrics

The *Asset Level Assessment and Targets* component of NZIF, drives real economy emission reductions by aligning investments with net zero goals through asset selection, management, engagement, and selective divestment. This component facilitates investors to report their asset-level alignment assessments, target setting, and implementation strategies.

Minimal financed or associated emissions in the present is consistent with portfolio alignment to net zero but does not guarantee significant positive net-zero impact over the long term. Paradoxically, high current financed emissions suggest greater potential for emissions reduction, such as through engagement.

This guidance – in line with NZIF – recommends shifting the emphasis from an exclusive focus on 'Financed Emissions' and/or 'Long Associated Emissions' as defined above, to characterising these emissions in the context of portfolio alignment and the use of different channels of influence.

NZIF recommends that with maximum possible effort, investors – and the hedge funds they invest in – use the levers at their disposal to align their portfolios with the goals of the Paris Agreement, recognising the need for influencing real-economy emissions reductions. The Framework provides a wide range of criteria and targets at portfolio and asset level, and endorses the use of granular indicators and benchmarks from other entities and initiatives such as Climate Action 100+, TPI, SBTi.

The following are examples of metrics that can capture a broad range of investor influence, including metrics to assess new capital provision, individual and collective engagement, stewardship, etc. These can be useful for evaluating some strategies adopted by hedge funds. The metrics below should not be taken as a template; rather, they are examples drawn from pre-existing indicators agreed upon by PAII members (IIGCC and other network partners) such as the Net Zero Stewardship Toolkit, Climate Action 100+, Investor Expectation on Corporate Transition Plans, and the Net Zero Engagement Initiative.

Figure 3. Examples of additional metrics to report on the use of alternative channels of influence

Examples of long book exposure metrics

Section	Metric	NZIF or NZIF-endorsed criteria	# Positions / Total Positions in Portfolio		% Portfolio AUM
A. Alignment	Companies with stated and externally verified net zero commitments (e.g., CA100+ alignment assessments such us those provided by Carbon Tracker Initiative (CTI), the Climate Accounting and Audit Project (CAAP), The Rocky Mountain Institute (RMI), InfluenceMap)	CA100+	5	60	30%
	Companies with credible science-based plan for Net Zero	NZIF Alignment criteria			
	Companies reporting on Transition Plans	Investor Expectation of Corporate Transition Plans			
	Companies implementing internal carbon pricing (ICP) to encourage emission reductions				
B. Stewardship and Engagement	Companies engaged by Climate Action 100+	CA100+			
	Companies engaged by Net Zero Engagement Initiative (NZEI)	Net Zero Engagement Initiative			
	Companies engaged directly by manager on climate issues with clear milestones set	Net Zero Stewardship Toolkit and Stewardship Questionnaire			
	Number of engagements with companies on climate related topics over the last quarter		Explanation required		
C. Voting	Average % voted/exposed ratio (what proportion of holdings is the manager voting on)	Net Zero Stewardship Toolkit, Stewardship Questionnaire, Net Zero Bondholder Stewardship Guidance			
	Companies with significant climate related shareholder proposals				
	Of the below, % supported by manager		Explanation required		
	% of companies voting against directors for climate related reasons		Explanation required		
	Details of votes per company including number of shares owned (exposure) and number of shares voted		Explanation required		
	Details of the voting approach adopted on climate issues, including proxy advisors and their policy on climate-related votes		Explanation required		
D. Climate Solutions investing	Exposure to companies with >5% revenue from climate solutions	CA100+ and Investor Expectation of Corporate Transition Plans	Explanation required		
	Exposure to companies with significant climate-related patents				
	Carbon sequestrated (removed and permanently stored) by companies				
	Carbon avoided (emissions that would clearly otherwise have occurred)				
E. New Capital Provision	New issuance participation in climate positive projects (e.g., green bond, SLB, equity to climate leader)		Cash provided through primary market during reporting period and explanation if relevant		
	New issuance participation in climate negative projects (e.g., fossil fuels, equity to climate laggard)				

Examples of short book exposure metrics

Section	Metric	NZIF or NZIF-endorsed criteria	# Positions / Total Positions in Portfolio	% Portfolio AUM
A. Alignment	No. short exposure with climate related thesis		Explanation required	
	No. shorts engaged by Climate Action 100+	CA100+		
B. Stewardship and Engagement	No. of company engagements over the quarter on climate related topics	Net Zero Stewardship Toolkit, Stewardship Questionnaire, Net Zero Bondholder	Explanation required	

3 Guiding principles

Derivatives and hedge funds cover a very wide range of potential contract types and asset classes. Because of their relatively higher complexity, and their evolving nature, principles are simpler to adopt than specific guidelines for an extremely wide range of possible situations.

1 Apply NZIF recommendations

When assessing the use of derivatives in their portfolios, investors should ensure they follow NZIF's recommendations and guidelines in the long and short book. Its recommendations do not change when investing in derivatives or hedge funds, but additional obligations reflect the need to separate carbon net financial risk exposure from portfolio net zero alignment. This requires investors to disclose how their derivative and hedge fund investment activity affects real economy emissions under Strategic Asset Allocation, and to explain the actions that will influence real economy emissions reductions under Asset Class Alignment.

2 Separate target setting of financial risk exposures from those of real economy influence

Because derivatives and hedge funds allow investors to gain indirect exposure to an asset, it is essential that investors distinguish between the two elements of their double materiality, i.e., real economy influence and financial risk. Acknowledging this distinction in explicit targets is a key part of implementing a net zero strategy incorporating derivatives and hedge funds – in particular, continuing to explicitly target net zero financed emissions from the long portfolio in a way that is consistent with the real economy objective of reducing emissions. NZIF does not provide recommendations regarding financial risk.

3 Use derivatives, leverage, and short selling to maximise positive climate influence of investor, within the mandate

What this will look like in practice will depend heavily on an investor's strategy and mandate. All investors implementing NZIF – whether holding direct or synthetic exposure – should assess their potential to exert positive climate influence and report on the channels of influence used to do so.

Investors should consider the changes in influence when holding a security in their own account rather than a prime broker, or directly holding the security rather than gaining exposure in derivative form. For example, a derivative or short selling strategy might be used to manage financial risk in a way that allows the investor to take larger and more influential exposure through larger direct exposure in companies they wish to influence.

A derivative or synthetic exposure might exert influence through the cost of capital mechanisms if it is very specifically targeted. Investors with significant derivative exposure should clarify how they believe they can impact the cost of capital through both long and short positions and how they will measure and report on such impacts.

Where investors expect their use of derivatives, leverage, or short selling not to have a material influence on real economy climate issues they should transparently state so.

4 Commit to full transparency and avoid greenwashing

Investors should commit to full transparency in all their investment activities and reporting, pledging to avoid publishing metrics that are designed to mislead either by overstating their positive environmental impact, or disguising a negative impact. Similarly, investors should avoid using derivatives, shorting or leverage to make claims that can be misleading. Examples of misleading actions or claims could include:

- Substituting direct exposure to a security/asset with derivative exposure for the purpose of reporting lower 'Financed Emissions'. Also, doing so in a manner that times the reporting dates (i.e., window-dressing).
- Netting long and short exposure for the purpose of emissions accounting, treating shorts effectively as offsets and/or claiming as a result that the portfolio is aligned to net zero.
- Claiming that short positions have a big influence on the cost of capital of high emitters while ignoring that long positions in high emitters could have an equally big influence in the opposite direction.

4 Limitations & alternative views

Limitations

The position of not aggregating long 'Financed Emissions' and 'Long Associated Emissions' should not be interpreted as an indication that the latter are excluded from net zero targets. Both long direct exposures as well as long indirect exposures should target net zero by 2050 according to the NZIF recommendations.

Excessive emphasis on Financed/Associated emissions can lead to misaligned incentives, prioritising decarbonisation targets through portfolio allocation instead of driving actual decarbonisation efforts in the underlying investments (i.e., paper decarbonisation vs. real economy emissions reductions or organic decarbonisation). Given that a small number of firms have very high carbon footprints, the financed emissions of a portfolio are typically concentrated in a handful of issuers. For this reason, the guidance emphasises actions that can maximise investor influence and recommends reporting on a wide range of additional metrics, including forward-looking metrics, underscoring the need for enhanced transparency across all utilised influence channels.

IIGCC's derivatives working group will assess the relevance of extending the analysis to the use of derivatives in other asset classes, such as commodities, and complement the guidance in due course.

Alternative views

Currently, the industry lacks a widely accepted standard for apportioning emissions associated with derivatives and shorting. There is still disagreement among investors and hedge fund managers with regards to how to account for the role that derivatives and shorts play in net zero investment strategies. This guidance recognises that some limitations remain and acknowledges the alternative views of some working group members:

- Some members argue that there should be no distinction between financial and impact materiality, given that all carbon metrics are potentially financial.
- Similarly, some working group members argue that net risk exposure – instead of direct ownership and long exposure – should be considered as the metric to assess real-economy impact. For them, netting of short exposures should be permitted analogous to their financial risk reporting treatment.
- Some investors hold that no distinction should be made between secondary market transactions and derivatives from the perspective of assessing real economy effects, because their channel of influence – via cost of capital – is the same. For them, the main focus for net zero investment strategies should be new cash provision (finance provided through primary market transactions). Given that neither secondary market transactions, nor derivatives, provide fresh capital to a company, they argue these investors should not be held responsible for the company's emissions.

- Lastly, some investors argue that cost of capital should be given as much emphasis as – or more emphasis than – stewardship and engagement because the long-term impact can be as big or bigger.

The recommendations set in this guidance are in line with those of the overarching Net Zero Investment Framework and are intended to maximise the impact of derivatives and short selling investments on real economy emissions reductions. Subsequent efforts by the industry, such as potentially upcoming standards by the Partnership for Carbon Accounting Financials (PCAF), would be assessed and integrated as the industry thinking on these issues evolve.

To net (emissions), or not to net...

When it comes to the role that derivatives and hedge funds play in the net zero transition, the main source of disagreement in the industry has revolved around the issue of netting the emissions from short and long positions in a portfolio. Netting short and long positions is unquestionably logical from a financial risk perspective: the transition risk or carbon price exposure of a £100 long position in company A is reduced by holding a £100 short position company B operating in the same sector.

However, when it comes to GHG emissions, companies operate exclusively on the long-only world, unless they are carbon removal companies, in which case they can subtract emissions from a portfolio. Therefore, the guidance suggests that, to maximise real-economy impact towards net zero alignment, investors should decouple the financial risk perspective from the net zero perspective and avoid using a net carbon metric that effectively offsets emissions of long and short positions. The following example illustrates the matter.

Two hedge fund managers Dr. Brown and Dr. Green run two competing hedge fund strategies. Their stated objective is to maximise financial return for their clients, and their marketing materials make a similar claim that they intend to make a positive difference to the world through their net zero strategy. Both have a long track record in being good stock pickers. Investor Grey, who is thoroughly implementing NZIF, seeks to differentiate between them to decide in which to invest.

Let's imagine the investable universe is composed of four companies. They are all carbon emitters, and all emit 100 tonnes of CO2 equivalent (t CO2e) in Year 1. However, they are on different trajectories. The first two have no plans to decarbonise and their emissions are growing. The second two have plans to reduce their carbon footprint. One year later, the carbon footprint of the first two increases to 150t of CO2e per year, and the other two improve their profile by emitting only 50t CO2e per year.

Companies in the investable universe	Year 1 (CO2e)	Year 2 (CO2e)
• LargeEmitter	• 100t	• 150t
• GreatEmitter	• 100t	• 150t
• RedeemingEmitter	• 100t	• 50t
• TransitioningEmitter	• 100t	• 50t

Let's assume that both funds choose to take all their exposure through derivatives and their only channel of influence is via cost of capital (i.e., the impact on the price of the shares in the secondary market through increased demand for the shares in the case of long positions, and increased supply of the shares in the case of short positions). Both run a simple strategy: with $100 of capital, they go $100 long one stock and $100 short another. For the moment, the only metric that regulators require them to publish is their 'net carbon exposure' to assess financial risk exposure. Dr. Brown's and Dr. Green's portfolios and carbon footprints are illustrated below.

Dr. Brown's portfolio and carbon footprint		**Dr. Green's portfolio and carbon footprint**	
Year 1 (CO_2e)	**Year 2 (CO_2e)**	**Year 1 (CO_2e)**	**Year 2 (CO_2e)**
$100 Long LargeEmitter (100t) $100 Short GreatEmitter (100t)	Long LargeEmitter (150t) Short GreatEmitter (150t)	$100 Long RedeemingEmitter (100t) $100 Short TransitioningEmitter (100t)	Long RedeemingEmitter (50t) Short TransitioningEmitter (50t)
Net carbon exposure: 0	**Net carbon exposure:** 0	**Net carbon exposure:** 0	**Net carbon exposure:** 0
Real-economy decarbonisation: + 100t (+ 50t from each)		**Real-economy decarbonisation:** – 100t (– 50t from each)	
Investor Grey's interpretation based on NZIF: Associated Long Emissions increased from 100t to 150t Associated Short Emissions increased from 100t to 150t		**Investor Grey's interpretation based on NZIF:** Associated Long Emissions decreased from 100t to 50t Associated Short Emissions decreased from 100t to 50t	

Dr. Brown invests in LargeEmitter with a carbon footprint of 100t and goes short GreatEmitter with a carbon footprint of 100t. Her portfolio's net carbon exposure is zero (100t long-100t short). She argues she's running a "carbon neutral" strategy because the net carbon metric is zero; she is not exposed to the risk of carbon prices increasing or decreasing. She is careful not to claim that the shorts create offsets, but she claims the net carbon metric proves she is having no effect on the market price for carbon overall, unlike a long only strategy that would support the cost of capital of carbon intensive companies.

In a years' time LargeEmitter's and GreatEmitter's carbon footprint both increase to 150t. Don't worry, says Dr. Brown, *'my net carbon exposure, hence my net emissions, are still zero'.*

Dr. Green invests in RedeemingEmitter with a carbon footprint of 100t. She goes short TransitioningEmitter with a carbon footprint of 100t. She claims her portfolio financial risk exposure to carbon risk is close to zero. But she is clear that her portfolio has Associated Emissions of 100t associated with the long in RedeemingEmitter and Associated Emissions of 100t associated with the short in TransitioningEmitter which she separately reports to her investors.

In a years' time both RedeemingEmitter' and TransitioningEmitter's carbon footprint has decreased to 50t. In the real economy the carbon emissions have fallen by 100t. She publishes the associated long and associated short emissions of the portfolio demonstrating this change.

Investor Grey carefully reviews NZIF's Derivatives and Hedge Funds Guidance and concludes. Superficially, Dr. Brown's claim is right at the level of the overall market. In Year 1, she increased demand for LargeEmitter by $100 and increased supply of GreatEmitter by $100, each with opposite current emissions. However, she claims she is making a great difference by putting downward pressure on the price of GreatEmitter, increasing its cost of capital, but this ignores that her long position is putting an identically opposite positive impact on the price of LargeEmitter. In fact, under Dr. Brown's logic, the more GreatEmitter (her short position) emits, the better the net carbon metrics would look in the overall portfolio. If it had emitted 180t in Year 2, instead of 150t, the portfolio net emissions would have been negative. To Investor Grey this does not make sense because in the real economy emissions have increased by 100t due to the actions of the two companies invested in.

This illustration demonstrates that:

- A net carbon metric is not a useful metric for tracking real economy decarbonisation. It does not capture either the increase or the decrease in real economy carbon emissions.
- Real economy carbon emissions are a function of the associated long emissions (and the financed emissions on physical longs) as well as associated short emissions.
- The net carbon metric which does demonstrate the net effect of capital on the overall market, is not very useful in explaining the impact of a portfolio's cost of capital. The cost of capital impact is a function of the size and direction (long or short) of the individual positions.

Investor Grey invests in Dr. Green's fund and advises on additional ways to expand their impact

Investor Grey considers that instead of only owning exclusively RedeemingEmitter via derivatives, Dr. Green can decide to own some stock in physical form. This increases the portfolio's Financed Emissions and decreases the Long Associated Emissions. But, as a registered stockholder, she could secure a meeting to engage with the management of the company to encourage a climate transition plan.

Meanwhile, Dr Brown aims to keep all her exposure to derivatives because her marketer tells her that investors focus more on Financed Emissions. *"By keeping your exposure in derivatives, you will report a lower Financed Emissions to the market".*

Furthermore, Dr. Green could vote, and publish the voting record, in support of their decarbonisation plan at the AGM, sending a strong signal to the management to accelerate their plans. She could join collective engagement efforts and influence the ecosystem to accelerate the transition. All these activities should be transparently disclosed.

IIGCC

77 Kingsway
London
WC2B 6SR

info@iigcc.org
www.iigcc.org