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# CFM'S VIEW ON SHORTS AND DERIVATIVES

## Response to the IIGCC consultation

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### Executive summary

In response to the discussion paper recently issued by the IIGCC about the integration of shorts and derivatives in carbon footprint accounting, we suggest going back to the three different transmission mechanisms investors can use to exert influence on corporate behaviour: providing cash to fund operations, decreasing or increasing cost of capital, and engaging. Besides the physical ownership of shares, we show that other instruments typically deployed by hedge funds offer a real capacity to influence, using a different mix of channels, and shouldn't be disregarded. Hedge funds can and should in fact also be steered towards playing a meaningful role, based on their specific approach to investing, in the global push towards net zero.

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## Context and urgency

The IIGCC recently issued a discussion paper questioning, for equity and corporate credit portfolios, the role that derivatives and hedge funds may play in implementing net zero agendas<sup>1</sup>, later herein referred to as the "IIGCC Document". The conclusion retained so far is that derivatives and shorts modify carbon related financial risks of investor portfolios but neither have a role to play in carbon footprint accounting, nor in the target setting exercise<sup>2</sup>. Impact on the real world only materializes, it is argued, through ownership of physical securities. This impact as far as carbon is concerned is fully contained in your "long emissions". If you short high intensity carbon emitters, you may reduce your carbon risk, but you don't reduce your footprint says the framework. You can only do so through selling from a pre-existing long position or, preferably of course, through steering your investee companies towards reducing the intensity of their emissions. Needless to say, not all agree with this asymmetrical view, including some members of the dedicated IIGCC working group which produced the document, and a consultation is now open for more feedback to be collected by June 10th.

Given the severity of the environmental crisis, providing investors with a valid framework that is most efficient at reducing emissions whilst also avoiding the risk of greenwashing is an incredibly important goal. As much as possible, careful consideration of all potential contributions from all corners of the investable universe, including non-traditional exposure involving shorts and derivatives, perhaps unfamiliar to many of today's responsible asset owners, should also rank high as a priority. Hedge funds are a smaller piece of the pie, considering their AUMs, but not so small<sup>3</sup> considering leverage and their ability to stay nimble. Not answering the question properly may therefore constitute a serious policy error, and worse, a major missed opportunity.

## Objective of this paper

This paper aims to dissect the validity of the claims made by each camp objectively and free of dogma. Its perhaps unsurprising conclusion is that there is some merit to both

claims. Indeed, under a specific set of scenarios and assumptions, namely in the very early phases of a company, and as long as one adheres to the efficient market hypothesis (EMH<sup>4</sup>), what really matters to the real world is what investors do as owners of physical shares. In most real-life circumstances however, considering the vast majority of investable securities, and provided the EMH is rejected<sup>5</sup>, investors have significant opportunities for real world impact mostly through transmission mechanisms that are powerful and well suited to shorts and derivatives. In terms of steering companies in the right direction, voting is open only to owners of shares, but engagement is open to all, no matter how one invests.

## What sort of impact can investors really have?

A useful starting point is perhaps to question what impact actually means, and to search for the full list of possible transmission mechanisms at play between investor decisions and the real world. But even before doing that, and to start from a clean slate, we discuss and attempt to debunk certain questionable claims made about "impacts".

### The somewhat inconclusive asymmetry claim between "long emissions" and "short emissions"

Surely when a transaction in a given corporate security occurs in the secondary market, someone buys shares or bonds from someone else who either reduces or divests from her long position or goes even further in the same direction by establishing a "short". This transaction, which just consists of a transfer of ownership, has no direct impact, in and of itself, on how much externalities the underlying corporate creates that day, or the following days. We therefore concur with the IIGCC Document's repeated observations that establishing a short "doesn't remove emissions from the real world" and also, following the same logic, that "being long a security also does not cause more emissions to be released into the atmosphere".

<sup>1</sup> <https://www.iigcc.org/resource/derivatives-and-hedge-funds-discussion-paper/>

<sup>2</sup> In above document – 1.3 Conclusions: "discussion paper proposes to extend the approach in the existing Framework to measure both long, short and net exposures that incorporate derivatives while targets continue to be set based solely on the long emissions associated with the portfolio"

<sup>3</sup> the discussion paper proposes recognising the role shorting can play in financial risk management, engagement and influence strategies (whilst, as explained above, excluding it from metrics of real economy emissions measurement)

<sup>4</sup> Quick calculation – 4 Trillion dollars – 1/3<sup>rd</sup> of that in L/S equity, with an average leverage of 2+2 => this represents about 5 trillion in position – not negligible compared to total AUMs of L/O, even more so if one considers only the active part (tracking error) of most L/O benchmarked products

<sup>4</sup> Under the EMH, prices are unaffected by investors reallocation decisions, they only depend on the news flow. Said otherwise, investors are all perfectly rational news discounting machines and prices constantly and perfectly reflect all available information.

<sup>5</sup> Rejecting the EMH, prices are not mechanically derived from the same universally known list of fundamental and objective facts about the underlying companies but are rather the consequences of cash injections or withdrawals, interpretations and preferences that vary in time (short memory about what the "fair value" is) and that differ from one investor to another. Also, considering the type of mandates most asset owners and asset managers operate under, large price variations can occur due to a surprising high level of inelasticity of demand to prices. See "In Search of the Origins of Financial Fluctuations: The Inelastic Markets Hypothesis" (<https://www.nber.org/papers/w28967>), Xavier Gabaix & Ralph S. J. Koijen, 2021). See also: "The Inelastic Market Hypothesis: A Microstructural Interpretation" (<https://arxiv.org/pdf/2108.00242.pdf>) Jean-Philippe Bouchaud, 2022)

We seem to diverge however in what to conclude from such a symmetrical observation in terms of selecting useful portfolio carbon accounting metrics. For us, this simply calls for care when using literal expressions such as “long emissions” or “short emissions” to define both long and short investors’ capacity to influence. Investors are indeed not the ones ultimately sending CO<sub>2</sub> molecules (nor anti-particles) into the atmosphere.

## Impact is not about emitting; it is about influencing those who do.

We see why the need to mobilize such capacity to influence is indeed commensurate to the underlying “real-world” emissions, and to the underlying risks of budget overshoots over time, but we fail to find any valid reason to break the symmetry between longs and shorts, given that influence, unlike real emissions, can actually go both ways.

This is not, however, what the IIGCC Document implies. Despite the admitted initial symmetry for the first part of the argument (“longs don’t increase real world emissions more than shorts reduce them”), still, somehow, acting on longs is supposed to matter more than acting on shorts.

We are left to speculate as to why.

Is it because having influence over an emitting company is confused with being the emitter itself, the implication being that only the physical stockholder can influence?

Or is it because a dubious parallel is drawn between claiming that “shorts matter as much as longs” with claiming that the real world could be saved by companies buying carbon offsets? We know indeed the latter claim to be wrong because the planet has limited room left for afforestation, CCS technologies are still quite unproven and expensive, or simply because too many offsets are of poor quality (little additionality or persistency), implying that corporates should make investing in reducing their own emissions a priority even when carbon offsets look cheaper. But financial instruments are immune to such constraints, and for any new short position created, one more long position appears, thus the pressure to decarbonize actually increases, rather than decreases.

Said otherwise, there is nothing that physical about a “long physical position”. It is a derivative in its own way, often now in fact dematerialized, with contractual links to physical corporates that do real things in the real world,

conferring certain ownership rights (voting rights, claim on dividends) which other financial instruments can then re-package and re-allocate.

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### Aren’t all carbon metrics potentially financial?

A formal distinction is also made in the IIGCC Document between two types of metrics. The first type of metrics, based on sensitivity to carbon prices, would supposedly be useful in measuring and managing transition risks. The relevance of shorts to manage such metrics is fully recognized. A second set of metrics having to do with forward trajectories versus sectorial budgets, or with net zero alignments, are invoked as useful in monitoring success in terms of “real world economy influence” but are not mentioned as part of triggering risk considerations. We don’t really understand this distinction.

Scope 1 & 2 data have indeed been more readily available to investors for some time, and may have acquired double materiality status already, whilst metrics such as implied temperature rise are much newer and haven’t yet been discussed in the context of financial risks, but what if, from here, such metrics start driving investor allocation decisions more meaningfully? Shouldn’t we expect that, over time, sound risk management will need to cater for this dimension as well? And as a result, shouldn’t we expect the difference between the two sets of metrics to disappear also in terms of their help on the real-world influence front? Ultimately, shorts emerge in sync with perceptions that a company is “misbehaving” precisely to the extent that such misbehaviour could trigger divestment over time, hence lead to stock underperformance, another way of saying that shorting increases the efficiency of price discovery<sup>6</sup>. Shouldn’t we anticipate, and in fact welcome, that relative alignment to Net Zero finds its way into prices and becomes another facet of “transition risks”? Will that not constitute a factor putting additional pressure on corporate target setting ambitions?

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### Not accounting for shorts plays against net zero

A problem with considering only gross long positions (just physical long positions or all delta long positions) for net zero accounting metrics could be that, over time, as more investors participate, and as the maximum allowed carbon intensities keep going down in all sectors, less and less “aligning” investors will be willing to hold the

<sup>6</sup> See [https://www.nbim.no/contentassets/fa779bdb63724b13a0b25fb976212a13/assetmanagerperspective\\_2-16\\_the-role-of-securities-lending.pdf](https://www.nbim.no/contentassets/fa779bdb63724b13a0b25fb976212a13/assetmanagerperspective_2-16_the-role-of-securities-lending.pdf)

companies with higher than allowed intensities, precisely those that should preferentially be steered towards emission reduction. Such companies will be shunned, very much in the same way that, in the fossil fuel sector, there is a risk that more and more assets may end up in the hands of either private, less regulated companies, or in the hands of states with less ambitious climate goals. If on the other hand accounting for shorts in alignment metrics is encouraged, there will always be ways to integrate the highest emitting companies within net zero willing investor portfolios, and thus a better chance of real-world reductions.

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### The three transmission mechanisms

Investors do have the capacity to influence, but it is not as direct as the “long emissions” expression used in the IIGCC document may lead one to think. A more in-depth analysis of the actual transmission mechanisms at play is required to properly understand how longs, shorts, derivatives and leverage can contribute.

There are three, and only three, channels investors can use to have influence over corporate behaviour, hence ultimately, over corporate emissions and corporate plans to reduce them:

1. **Cash**  
Providing financing is typically done at scale by commercial banks but participating in the equity or debt of a firm when it issues new securities, i.e., in the primary market, is also a way to bring it new cash.
2. **Capital**  
Sharing more or less of corporates' business risks by buying and selling in the secondary market and influencing the cost of capital of the activities they engage in
3. **Stewardship**  
Voting and engaging

And there are of course differences in terms of which channel(s) can be activated, and at which cost, using the different instruments mentioned above (longs, shorts, derivatives or leverage).

#### Physical long: the jack of all trades

An interesting argument in favour of holding long positions in physical shares in terms of gaining influence is that it offers the three channels at the same time: providing cash (at least when buying in the primary market), encouraging the economic activity pursued by the corporate through a positive vote of confidence, and

having access to voting rights in ballots and filing motions at the AGM. In comparison, derivatives or shorts only offer access to the second channel.

#### Derivatives: ideal for a more tailored usage

Thanks to leverage, however, this second channel can be exploited, deploying derivatives, with a higher intensity than through holding physical shares.

Having just noted that different instrument types allow investors to access different channels of influence, it is not yet possible to decide which instrument type carries “more” impact. It is all a matter of circumstances, a matter of what the targeted corporate is most hungry for (cash or capital) and, furthermore, it also depends on how much one believes in the efficient market hypothesis (EMH).

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### What does the EMH have to do with this debate?

Simply put, if the EMH is valid, the second channel simply doesn't exist. Prices are set at any point in time based on what investors know about corporates and their prospects and no decision to invest or divest will ever make any difference in terms of the cost of capital. But there is another consequence for responsible investing. Investors could obviously still want to adhere to an ESG integration policy so as to optimise their portfolio risk return profile but ardent EMH believers could no longer pretend their investment decisions play any role in shaping tomorrow's world. The only channels left are the first and third: to be or not to be a day one investor, and to vote and engage.

If, however the EMH doesn't hold, as we believe at CFM, then the second channel of influence is potentially active. The degree of influence gained this way is a direct function of how much positive or negative economic exposure investors are willing to take and hold on to.

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### How does the second channel operate?

The existence of the second channel of influence doesn't mean that any decision to buy (or to sell) will automatically translate into higher (respectively lower) prices hence lower (respectively higher) cost of capital. It is only on average that this will be the case, and also as long as the holding period for that decision proves longer than that of the counterparty of the trade the position was built from. This argument of lower “staying power” is sometimes used to explain why shorts would matter less. Shorting is

indeed a slightly more difficult and dangerous undertaking than going long:

- ▶ your risk (measured as “how many dollars do I lose if prices go 10% against me”) increases on a short position when you’re wrong (since 10% of 110 is more than 10% of 100), whereas your risk decreases when you are wrong on a long (since 10% of 90 is less than 10% of 100).
- ▶ and it is in our DNA that, in general, it takes stronger nerves to make good decisions when you are distressed than when you are in your comfort zone.
- ▶ Also, it is a bit more costly since you need to borrow, and you always risk being recalled at the wrong time (although in theory you can lend your stock when you are long, so funding costs are symmetrical, and also recall risk is rather theoretical, at least as long as the stock is not in a special situation or the investor is sitting on a huge position).

This may explain why position rotation on shorts typically appears, on average, at least with discretionary managers (generally coming with an equity analyst background and trained to look for best buy opportunities, and thus less familiar with shorting) faster than on longs.

When talking about quant systematic investing however, the tilt in being predominantly brown on shorts can naturally be as strong and persistent, hence real world influential, as the opposite tilt in favour of green for the longs. It could even be argued that it’s easier to detect what’s brown than to detect what’s green, so the preference for green is probably even more impactful via the short book, whilst longs contribute relatively more in terms of hedging out all other factors than in terms of contributing to the greenness of the portfolio.

In conclusion to this point on the holding period: it is indeed valid to question the reality of this second channel of influence, since buying or selling only have an impact on the cost of capital to the extent that the holding period of the buyer differs from the holding period of the seller. But it turns out there is no reason, especially when considering thematic investing in a quant context, to pretend that the pressure on the cost of capital of certain economic activities caused by shorting would last less and therefore count “less” than the opposite pressure coming from the long side of the balance sheet.

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### **What about the third channel (voting and engagement)?**

As mentioned above, only long equity positions via physical securities give access to voting, at least providing shares haven’t been lent away. This being said, voting is not the only way for investors to access management teams of companies and exert influence. Holding shares is not a prerequisite for participating in all sorts of campaigns and/or collaborative engagement platforms. An investor who doesn’t hold a position is a potential buyer, and even more so an investor holding a short position is an investor who will at some point want to buy back, making them interesting parties for the corporate investor relations team. Furthermore, besides actions targeting companies, investors can also exert influence through the trade associations companies are registered with, and also talking directly to regulators and law makers on the necessary changes to be made, for instance in disclosure regulations, so as to get the necessary data, but also in terms of ensuring that governments deliver on NDCs and don’t limit their action to ensuring that enough webcams are installed on the Titanic!

In conclusion about this third channel of influence, surely owning the physical security provides an extra lever, but many more exist which are available also to hedge funds who are willing to engage both with individual companies and also thematically, including when they use derivatives.

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### **When would derivatives and shorts be most relevant?**

Siding with the IIGCC’s prevailing position, and the ranking proposed in the Document (Tier 1 to Tier4), would seem quite logical if it could be demonstrated that the first channel of influence (bringing cash), which is open only to “longs”, proved generally more effective than the second channel (sharing business risk), which is open also to derivatives and shorts.

But we would argue it all depends on circumstances.

When a company is created, clearly the first channel (providing cash) is paramount, and unsurprisingly the only financial instrument available then is “long physical shares”. One either buys, or not, shares from the founders, and whether or not a company will exist, entirely depends on finding “Day one” investors. There is no shorting or derivatives or leverage going on whilst companies are still young. But things are quite different for large and medium cap companies that make up the bulk of investor

portfolios. For such companies, access to cash is, to a large degree, disconnected from access to capital. It will use its commercial banking relationships and bond issuance programs to secure the cash, and its dividend and maybe its share buy-back programs to regulate, as much as it can, the relative performance of its share market price. Clearly in such cases it is no longer through the first channel, which bankers take care of, but through the second channel, i.e. by decreasing (when buying stocks) or increasing (when selling stocks) the cost at which the company will later refinance itself (with more debt or more equity) that investors have the greatest influence. Apart from credit crunch episodes, you can hear CEOs worrying and complaining about investors shorting their stock more often than you hear them arguing about rolling debt at the bank. This makes hedge funds powerful agents of change, potentially, and therefore agents of change for any net zero framework. The use of leverage allows even a relatively small AUM to translate into significant pressure applied on the cost of capital of targeted firms, when compared to a long only fund which needs to stay close to a benchmark.

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### Numerical example:

- **Fund LO**, for each 100mio of NAV, is overweight (1%) stock G (G for green) and underweight (-1%) stock B (B for brown) versus the index. Fund holdings = 100 Mio of Index + 1mio of G - 1 mio of B
- **Fund HF**, a hedge fund, for 100mio of NAV, using a gross of 600%, is invested mostly in US Treasuries, and uses derivatives (CFDs or Equity swaps) in order to build a book containing a delta of 6 mio of G and of - 6 mio of B. This only represents +/-1% of its gross book, so quite a modest bet within a diversified portfolio.
- When considering the second channel it appears that thanks to derivatives and shorts, **Fund HF is 6 times more influential *vis-à-vis* both stock G and stock B, per unit of AUM, than Fund LO.**

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### What if you retain derivatives but not shorts in carbon accounting?

Some regulators have taken the view that they should not prevent the holder of an economic exposure in a green company to get credit for it even when it has been established through derivatives. This seems reasonable, more so than what the IIGCC currently considers

recommending. However, this “transfer” of the greenness to the derivative holder is only accepted by such regulators if the delta is higher than 90% and if proof is provided that the writer of the derivative, probably a delta one desk holding the physical security to hedge out the swap, is not itself making the green claim. This is quite a cumbersome construct, and it would be much easier to just get the delta one desk to account for the greenness of the long, and to offset it with the exact opposite amount coming from the derivative position as it sees it, resulting in a net zero impact position, whilst the holder of the derivative takes all the credit associated with taking the corporate business risk as market risk.

Said otherwise, not accounting for shorts whilst accounting for derivatives would lead to the possibility of greenwashing as illustrated by the following position:

**Fund HF**, with no particular intention to help on the carbon front, but in order to look very green, on top of its positions, enters into a TRS with its PB where it gains economic exposure to a basket of very green stocks and then hedges away all exposure with shorts in the same names.

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### What if you retain shorts but not derivatives in carbon accounting?

In defining how to compute the fraction of Sustainable Investments (as per the EU taxonomy) an Article 8 or 9 fund should disclose, the regulator has indicated that the market value of any Sustainable Investment appearing on the short side should be netted against the market value of Sustainable Investment longs, therefore recognizing that shorts matter to impact.

As for the above case however, it can clearly be seen that if such a decision to account for shorts is not extended also to derivatives, it becomes very easy to build a long brown position through a derivative and short the same name to make any portfolio look much greener than it really is.

### Only two approaches avoid greenwashing and loopholes whilst maintaining linearity in the metrics: “physical shares only” or “full delta”

As stated in the IIGCC Document, it may be valid to retain not one but multiple metrics to appraise the quality and intensity of investor efforts and to account for the specific influence and impacts obtained through the activation of the various channels.

We would however insist that, for any metric to qualify as consistent and user friendly enough, it either has to focus only on physical share ownership, or on considering all positions on a delta basis. Only such two approaches will ensure the possibility of a linear deployment by asset owners across their entire holdings, where the value of any carbon metric on a combination of portfolios is simply the sum of the values of that metric on each individual portfolio. As the above attempts to demonstrate, any partial incorporation of some but not all deltas leads to greenwashing opportunities via loopholes.

with their own attributes, without leaving room for inconsistencies, double counting or greenwashing.

## Conclusion

Considering that hedge funds may play a positive role and should be included in carbon accounting and net zero targeting for their positions on both sides of the balance sheet, in a way furthermore magnified by leverage, will likely leave some investors perplexed. It seems to fly in the face of a dogma that the responsible world has maintained so far which is that trading is rather vain<sup>7</sup>, that engagement is the only thing that really matters, that anything going on beyond the ownership of physical shares is anecdotal and a distraction, and that short selling is only really implemented for controlling market risk and/or for benefitting from bad things happening in the real world. Such a view characterizes hedge funds as by and large socially useless at best and hence undeserving of fully participating in any responsible agenda. Somehow the prevailing recommendation from the IIGCC not to include shorts and derivatives in net zero considerations seems to stem from such dogma rather than a critical analysis of the actual transmission mechanisms at the investor's disposal.

Sure enough, you cannot vote unless you own the physical shares, but this is only one way of gaining influence. When considering the vast majority of shares in investor portfolios, and how mission critical it is for the corresponding companies to keep their cost of capital in check, it seems on the contrary logical to consider that quite a substantial influence is in fact exerted by investors through managing their deltas (economic exposures) up and down, including into negative territory. Since hedge funds are the ideal format for maximizing such a type of impact, it seems that a proper net zero framework would therefore have much to gain from integrating their contribution in a sensible manner, so as to ensure that the whole industry pushes in the same direction, each investor

<sup>7</sup> <https://www.gov.uk/government/consultations/the-kay-review-of-uk-equity-markets-and-long-term-decision-making>

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