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Position paper on role of offsetting for portfolio companies

As the awareness of the potential impact of climate change increased, especially since the start of this century many companies have begun to work on reducing to their Greenhouse gas emissions (GHG). These companies often also commenced with offsetting (part of) their remaining emissions. From the outset of this document we would like to emphasize that the reduction of GHG emissions has priority over the offsetting of GHG emissions. As their as simply not enough capacity remove and store current GHG emission levels to extent that we can avoid catastrophic climate change.

Following the Paris Climate Agreement in 2015 it has been generally determined that to limit climate change to below +2°C or even +1.5°C we would need to reach net zero by 2050 [1]. Therefore following the Paris Climate Agreement, more and more companies have committed to reducing their emissions to net zero [2]. Since, (a) many pathways to achieve net zero indicate the need for carbon removal and storage [3] [4] and (b) nowadays some companies have realized substantial GHG emissions reductions (e.g., Philips / Signify - 2000 vs. 2021: -83% [5] [6] ; Sony 2001 vs. 2021: -89% [7] [8]) – more and more the question is being raised how to assess the offsetting of GHG emissions by investee companies.

The position outlined in this paper focusses on the *voluntary* offsetting. Voluntary carbon offsetting refers to a reduction in GHG emissions – or an increase in carbon storage (e.g., through land restoration or the planting of trees) – that is used to compensate for emissions that occur elsewhere. Organizations that emit GHG emissions generally voluntarily offset via 'credits'. Which are transferrable instruments certified by governments or independent certification bodies to represent an emission reduction of one metric tonne of CO_2e. The purchaser of an offset credit can "retire" it to claim the underlying reduction towards their own GHG reduction goals.

Voluntary carbon offsetting can be a cost-efficient and (almost) necessary manner to achieve net-zero after implementing virtually all realistic measures to reduce GHG emissions. In other words, the reduction of GHG emissions has priority over the offsetting of GHG emissions. For the simple reason that in order to avoid the most catastrophic consequences of climate change we will need to limit global warming to +1.5°C, and there is not enough capacity to remove- and store the current levels of GHG emissions to achieve this objective. In addition, in general this would likely not be a cost-effective- and risky strategy. However, for some (essential) industries for which we currently do not technological solutions to substantially reduce GHG emissions and thereby virtually realize net zero it might be. Ideally a large share of the abatement capacity would be reserved for these industries (e.g., cement, shipping) [9].

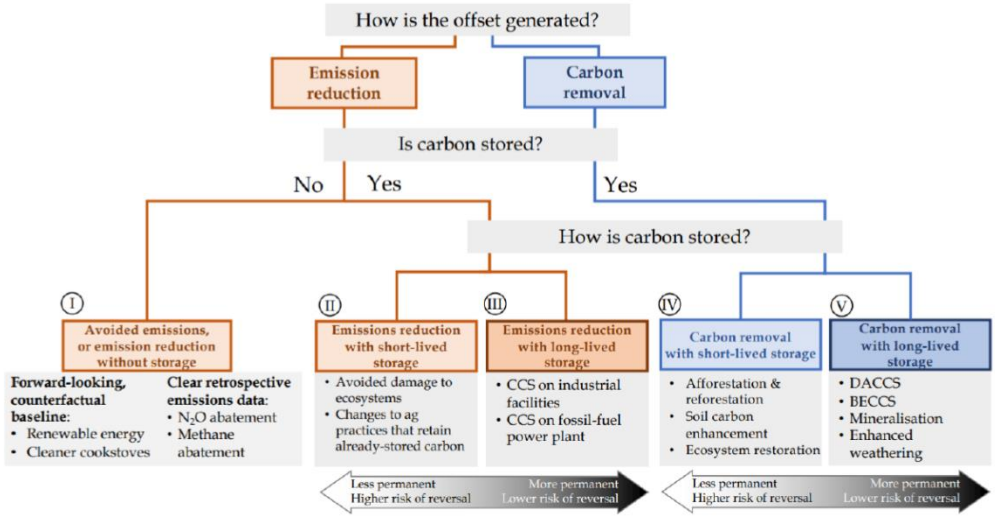
Next to voluntary carbon credits there also mandatory carbon credit market instruments (e.g, the EU Emissions Trading Scheme (EU ETS) credits). Which are not in scope for this paper, as these follow from laws and regulations in certain jurisdictions and therefore are not a subject of discussion.

Voluntary carbon offsets exist in many forms (e.g. avoiding emissions, carbon storage) and can generally be obtained via voluntary or compliance carbon markets. The Oxford Offsetting Principles provides a taxonomy of carbon offsets [10], see the

[1] UN IPCC (2019), Global warming of 1.5°C, link
[2] Accenture (2021), Reaching net zero by 2050, link
[3] UN IPCC (2019), Global warming of 1.5°C, link
[4] IEA (2021), Net Zero by 2050: A Roadmap for the Global Energy Sector, link
[5] Royal Philips N.V., Annual Sustainability Report 2002, link
[6] Royal Philips N.V., Annual Sustainability Report 2021, link
[7] Sony Corporation, Annual Sustainability Report 2001, link
[8] Sony Corporation, Annual Sustainability Report 2021, link
[9] IIGCC (2022), Climate Investment Roadmap: A tool to help investors accelerate the energy transition through investment and engagement, link
[10] Oxford University (2020), The Oxford Offsetting Principles, link

figure below. There are various forms of such voluntary offsets which range in terms of: (i) being based on carbon avoidance (e.g. providing gas-fired cookstoves) or storage (ii to v), being nature- (ii, iv) or technology based (iii, v), and the permanence of the carbon storage (ii vs. iii and iv vs. v).

Figure: The Oxford Offsetting Principles taxonomy of carbon offsets



As Van Lanschot Kempen we prefer companies to offset their remaining hard to abate GHG emissions via well-managed carbon removal and storage projects that apply biological solutions (e.g. reforestation) of which the additionality has been established. Corresponding to category iv in the overview included above.

The main argument to favor carbon removal and storage (iv and v) over avoided or reduced emissions projects (i, ii and iii) is that net zero pathways indicate the need for such solutions in addition to GHG emissions reductions [11] [12]. Within carbon removal storage, we prefer biological solutions (iv) over technological solutions (v) because of the additional positive effects that help reduce other sustainability challenges such as water scarcity, declining food security and biodiversity loss (see figure included below, summarizing an assessment by the UN Intergovernmental Panel on Climate [13] – adapted from Nature [14]). In this figure we have included mineralization as a sub-category of Direct Air Carbon Capture Storage (DACCS) and Bio-Energy Carbon Capture Storage (BECCS), as via this process captured carbon is transformed into a solid mineral (e.g. carbonate). The advantage of mineralization is that then the carbon can be stored for longer periods of time as the carbon not escape back to the atmosphere.

Figure: Comparison of potential side-effects of different carbon removal and storage project types

However, as the certainty of the permanence of carbon storage via biological solutions is less than for technical solutions (e.g., forest fires can release carbon stored in tree mass back into the atmosphere) – it is important that these are well managed

[11] UN IPCC (2019), Global warming of 1.5°C, link
[11] IEA (2021), Net Zero by 2050: A Roadmap for the Global Energy Sector, link
[13] UN IPCC (2022), sixth assessment report, link
[13] Nature (2021), Microsoft's million-tonne CO_2-removal purchase — lessons for net zero, link

(e.g, by planting native more drought resistant species). Quality standards standard on the management of such projects that amongst others aim to reduce such risks, include: the SER International principles and standards for the practice of ecological restoration [15] and UN Principles for ecosystem restoration [16]. In addition, carbon credit schemes typically hold buffer reserves of credits to 'insure' such risks.

The capacity for carbon removal and storage via biological solutions is limited and insufficient to limit global warming to +1.5°C if we do not achieve a more than foreseen reduction in GHG emissions [17]. As a next best alternative we therefore propose to support companies to offset their emissions through projects based on technologies that allow for long-lived carbon storage, such as Direct Air Carbon Capture Storage in combination with mineralization, to thereby contribute to the development of such solutions.

This position is in accordance with the draft IIGCC Offsetting principles [18]. We do not take into account offsets in determining the carbon footprint of our AuM, since (a) may provide a distorted view of the impact- and the transition risks related to climate change of investee companies and (b) this is not allowed with generally accepted standards [19] [20].

Example: Signify

- Lighting producer Signify claims to have achieved net-zero for its operational GHG emissions
- This claim is partially based on the use of voluntary carbon offsets
- Compared to FY2000 it has reduced its GHG emissions by over 80% to below the SBTi prescribed pathway
- Its remaining scope 1 and 2 GHG emissions, 'operational GHG emissions', for FY2021 were 335 kiloton CO2e
- Signify offset these GHG emissions in FY2021 through credits in reforestation and anti-deforestation projects
- In accordance with the position outlined above, in assessing Signify's climate strategy:
    - We value the reduction of its GHG emissions in accordance with the prescribed SBTi pathway
    - Support the use voluntary carbon credits to offset its remaining GHG emissions
    - May ask the company to shift its offsetting from credits in anti-deforestation projects to additional credits in reforestation or afforestation projects as the additionality of such projects is better substantiated

In determining the carbon intensity and footprint of our portfolio we take into account the scope 1 and 2 GHG emissions without / before offsetting.

[15] SER (2019), International principles and standards for the practice of ecological restoration, link
[16] UN (2020), Principles for ecosystem restoration, link
[17] Smith & Torn (2013), Ecological limits to terrestrial biological carbon dioxide removal
[18] IIGCC (2022), IIGCC Principles for investors and corporate offsetting: for consultation
[19] Science based targets initiative (2022), Financial sector science-based targets guidance, link
[20] PCAF (2021), The global GHG accounting & reporting standard for the financial industry, link