



Decarbonizing Underwriting Portfolios

COP28

Executive Summary

- The insurance industry has paid much attention to decarbonizing investment portfolios by investing in assets that generate fewer greenhouse gases (GHGs), leaning on learning from banking. The focus now shifts to the GHGs produced by insurers' corporate customers — and whether the industry has a role in encouraging them to reduce emissions.
- There is increased scrutiny from regulators, shareholders, and public pressure groups of the GHG emissions enabled by insurers through their underwriting activities — and underwriters can no longer afford to ignore this mounting pressure.
- Decarbonizing underwriting is fundamentally different from reducing the emissions associated with investments. While the owner of an investment security can have a measure of control or influence over a company's activities, the same is not true of the provider of an insurance policy. The target of decarbonization in underwriting is the emissions of the insurance industry's customers. This poses unique challenges.
- The process of decarbonizing underwriting has three elements:
 - Assessment
 - The choice to engage
 - Incentivization
- Measuring the carbon footprint of underwriting portfolios is far from straightforward. But methodologies for doing so are beginning to emerge, and despite the sectoral differences, some techniques already developed for asset management can also help.
- Public pressure groups, such as climate campaigners, often call for insurers to cease doing business with fossil fuel-emitting companies. But exclusion alone will not work, since such companies can always find another insurer prepared to take their business. Insurers' most effective route is to engage with their clients on GHG reduction.
- This engagement will require fresh thinking and product innovation, however, as insurers' traditional method for incentivizing client behavior — offering reduced premiums — may be less effective or appropriate for tackling emissions. Since there are few policies under which lower emissions would mean a lower risk of claims, there is little incentive for the insurer to offer lower premiums.
- Underwriters urgently need to begin tackling this challenge. Delaying further risks dislocation in the insurance market and a disorderly transition to net-zero emissions.



Underwriting a lower-carbon economy

Banks, insurers, and the rest of the financial industry have an important role to play in climate change mitigation, particularly through tackling “financed emissions” — the GHG pollution they facilitate through investing in or insuring the fossil fuel industries.

The most significant progress so far has come through efforts to decarbonize investment portfolios — broadly, buying fewer securities from high-polluting companies and more from greener ones. Under initiatives such as the Glasgow Financial Alliance for Net Zero, a significant portion of the global capital stock is now at least nominally covered by net-zero pledges.¹

Yet the insurance industry is making a separate, and significant contribution to the financed-emissions problem through its underwriting activity.

Collectively, the industry insures trillions of dollars’ worth of GHG-emitting enterprises. Total premiums from fossil fuel industries, including oil, gas, and coal, amount to about USD20 billion.² Marine insurance premiums totaled USD33B in 2021, according to the International Union of Marine Insurance (IUMI),³ and global shipping accounts for 3% of all greenhouse gas emissions. Motor insurance dwarfs all of these, with global annual premiums of USD745B.⁴

These sectors represent only the most obvious GHG-intensive activities, and countless others have significant carbon footprints, from real estate and construction to manufacturing and agriculture. Demands are mounting on the insurance industry to address its role in enabling GHG emissions by underwriting a wide range of business and industrial activities.

Drivers for change

Regulation is the single largest driver for decarbonizing underwriting portfolios and its force stems from the common core of national and international standards for climate action. This has grown to include substantial, if often voluntary, codes from financial regulators on the disclosure and accounting of GHG emissions.

At the heart of this regulatory framework lies the Task Force on Climate-related Disclosures (TCFD), set up by the International Financial Stability Board. Its expectation that large corporates disclose GHG emissions has been implemented at various paces across different jurisdictions. The UK's Financial Conduct Authority, for example, requires all of the UK's largest companies and financial institutions to report on climate-related risks and opportunities.⁵

GHG emissions are categorized under three 'scopes'. Scope 1 emissions cover those directly created by a company in its core business. Scope 2 emissions cover those created indirectly, for example, from the energy it buys for heating its buildings. Scope 3 covers those created along the value chain of which a company is part. These may be emissions generated by third-party suppliers or clients, whose businesses are indirectly supported by the company. For the insurance industry, this would include emissions generated by companies in an underwriting portfolio. Again, the pace at which the reporting of Scope 3 emissions is becoming mandatory varies across jurisdictions, but the direction of travel is clear.

The insurance industry has not, however, been inactive. The Net Zero Insurance Alliance (NZIA) of leading insurers was convened by the United Nations in 2021 and its members are committed to reaching net-zero GHGs in their underwriting portfolios by 2050.

Public and political opinion is also a significant factor in driving underwriters to address the carbon footprint of their portfolios. But here, the industry is facing contradictory forces.

In March 2023, climate campaign groups wrote to 30 leading global insurers demanding they immediately stop underwriting new fossil fuel projects.⁶ Just two months later, leading insurers (many of them the same companies targeted by climate activists) faced a backlash from the opposite direction when US Attorneys General from 23 US states accused them of anti-competitive behavior that was detrimental to clients because of their commitments to the NZIA targets.⁷

We will revisit this political dimension later in this paper, but the combination of regulatory risks and the sometimes-contradictory ferment of public debate is not making the challenge any easier.

Politics aside, the practical task of decarbonizing underwriting faces several challenges, some of which are peculiar to underwriting and reflect its distinct role in the insurance process.

These challenges can be grouped under three headings:

- Assessment
- The choice to engage
- Incentives

The overall process of decarbonizing shares many similarities with that already pursued on the investment management side of the insurance sector, and there is much that can be drawn from the progress it has already made. However, there is also a fundamental difference: underwriters are not investors or owners in the companies they underwrite; they are businesses offering a product and a price to a client.

This difference is important, and creates particular considerations for underwriters as they go about decarbonizing their portfolios.



Assessment: follow the risk, not the money

The first stage in any carbon-reduction initiative is to assess the scale of GHG emissions. The difficulty for underwriters is immediately obvious: how much of the insured entity's output of GHG is really attributable to the insurer underwriting its assets?

The Partnership for Carbon Accounting Financials (PCAF) was set up in 2015 and since then it has been designing models to account for GHG emissions. Its methodology draws a clear distinction between "financed emissions" and "insurance-related emissions."

Investments fall under the definition of "financed emissions."

The investment institution is directly providing finance (typically equity) and is likely to have some control or influence over the company in which it is invested. To assess a firm's financed emissions through investments, we must, in PCAF's words, "follow the money."

But underwriting is fundamentally different. The underwriter is not financing the business in question and nor can it be said to have any significant control or influence over operations. Furthermore, the money flows in the opposite direction; rather than providing finance to the insured, the underwriter receives a payment. The PCAF defines these as "insurance-associated emissions" and suggests a fundamentally different approach is needed for underwriting.

"The core difference between financed and Insurance-Associated Emissions is the nature of the relationship between the financial institution and the client. The property and casualty lines of business mitigate risks associated with economic activity, but they do not finance this activity and do not imply any form of ownership. Therefore, in the case of Insurance-Associated Emissions we refer to the "follow the risk" principle instead of the "follow the money" principle."

— Partnership for Carbon Accounting Financials⁸

Given this relationship, attributing a share of the carbon footprint to an insurer that does not own or control the activities of the insured client is a complex task.

The PCAF has made progress in this regard, producing a methodology for attribution of GHG emissions from commercial and motor insurance lines to the underwriter.

The starting point is emissions data sourced from the insured. The largest corporate clients will often already be required to produce data that is verified, for example, by the Carbon Disclosure Project (CDP). In some circumstances, the insured may be estimating its own emissions, while in others, the (re)insurer will need to make their own estimate based on industry- or sector-wide averages.

The attribution method can then be applied to this data to reach a figure for the emissions that should be attributed to the underwriter.⁹

A lack of data from the insured is one potential gap in the process. When it comes to commercial lines, the underwriter can draw upon the methods already in operation in asset management, which are more advanced in assessing the carbon footprint of business activities even in the absence of verified emissions data. There are numerous metrics and assessment services available, including from credit risk rating agencies such as Moody's or Dun & Bradstreet, dedicated sustainability specialists such as Sustainalytics, and data from the likes of MSCI.

Each provider creates metrics and applies methods that are imperfect, so there is an urgent need for standardization in this field. However, the groundwork is in place and the assessment methods available to investors provide a source that underwriters can draw on for assessing the GHG-intensity of their portfolios.

Dedicated tools are available to insurers to assess the carbon impact of underwriting portfolios, including Gallagher Re's own [Carbon Portfolio Benchmarking Tool](#), launched earlier this year,¹⁰ which allows carriers to identify carbon hotspots in industries or regions, and to benchmark their portfolios against the wider underwriting market.

More recently, Lloyd's of London has announced a partnership with Moody's Analytics to develop a method of quantifying GHG emissions across managing agents' underwriting and investment portfolios.¹¹ The market said this was intended to "aid managing agents in meeting expected regulatory reporting requirements." The partners plan to use the PCAF standards, referred to above, as a starting point for their own work.

There are further challenges to overcome and some lines of business will prove extremely challenging — notably personal and household policies. But despite the difficulties, methodologies for assessing what GHG emissions can be attributed to underwriting are emerging that could provide underwriters with a starting point for their journey to decarbonization.

The choice to engage

Assessing the carbon footprint of an underwriting portfolio is the first essential step, but the crucial next stage is working out how to reduce it. The bluntest tool in the box is exclusion — or refusing to underwrite the risk of highly polluting activities.

Paris-based [Descartes Underwriting](#) was founded in 2019 and specializes in parametric solutions for climate risks. It operates a degree of exclusion, in cases of the most GHG-emitting activities, such as coal-related business, and its marketing activities are heavily focused on low-emissions activities, such as renewable energy.

However, Chief Underwriting Officer Sebastien Piguet explains exclusion is not the preferred route in most cases, “Exclusion is always a difficult topic, as we do not want to give lessons to anyone, especially not our potential clients. Consequently, we strongly prefer engagement.”

Underwriters with a longer history and an established client base face a different challenge: their portfolios may already include high-emission activities. Widespread exclusion, however, is a potentially dangerous path both for the established insurance sector and for the ultimate objective of an orderly transition to net zero.

This is a risk highlighted by Yingzhen Chuang, Global Head of Sustainability Risk at Gallagher Re, “To only pursue exclusions is to leave clients uninsured. It can mean the collapse of their business and stranded assets. So, dialogue is the responsible thing to do to help with the transition. People are going to need time to transition and relying on exclusion raises the risk of a disorderly transition.”

Chuang adds that exclusions may not even prove significant in reducing high-emissions activities. “If you are excluding things, where are people going to go for the capital? There is a risk that it channels them to reinsurance capital with lower credit quality. Exclusion may not even reduce the activity being targeted if someone else underwrites it.”

The risk of a delayed and/or disorderly transition was examined in a recent research paper¹² by Singapore’s sovereign-wealth fund GIC, Ortec Finance, and Cambridge Econometrics. It presented a scenario in which governments and businesses fail to take the urgent action necessary in the next few years to decarbonize the global economy, which leads to worsening adverse climate effects and exacerbated natural disasters.

This in turn leads to a hurried attempt to decarbonize, including through more stringent regulation. The result would be an economic and financial market shock; GIC’s paper estimates that a delayed and disorderly transition would lead to an estimated 13% underperformance in cumulative investment returns over a 40-year period.

GIC’s analysis does not look directly at insurance, but a sudden move by (re)insurance underwriters to exclude companies or whole sectors — perhaps because they were forced to do so by regulators, or as a result of general public opprobrium towards fossil-fuel industries — could well form part of such a market shock.

In contrast, a managed and orderly effort to decarbonize underwriting portfolios in the near term will be more effective, and less disruptive to both the insurance sector and the wider economy.

The insurance sector has a vital role in enabling and encouraging an orderly transition to net zero, but despite demands from some climate pressure groups, blanket exclusion is a challenging approach from an economic or environmental perspective.

Some underwriters will choose not to start underwriting fossil-fuel-related and other GHG-intensive sectors, but for most that already have exposure to such sectors, the approach will need to be primarily one of engagement, as we explore in the following section.



Incentivizing GHG reduction

Insurers' usual mechanism for influencing the behavior or activity of the insured is to adjust premiums. Providers of health and motor insurance, for example, are increasingly using personal data to incentivize behaviors, adjusting premiums based on a client's healthy lifestyle or responsible driving. The insurers' interests are aligned with the customer's because the incentive is built into the risk model. As careful drivers make fewer claims on their insurer, the insurer can offer lower premiums to careful drivers.

It might be assumed that a similar approach could be applied to decarbonization. However, in this case, the incentives of the insurer and the insured are not so directly aligned. A company that pursues a rigorous carbon-reduction program might reduce some risks to its business, but most will remain unchanged. For the underwriter, a low-emissions company may not represent a lower risk and therefore it would not merit a lower premium.

As Gallagher Re's Chuang puts it, "The benefit on the earnings side needs to be addressed; otherwise, the insurer is giving away premium but doesn't receive a benefit back in fewer claims."

This conundrum is a challenge for incentivizing decarbonization. If the risks are unchanged in the short-term there is no basis for the insurer to reduce premiums; if premiums are unlikely to fall, the insurer can offer fewer incentives to a company to reduce its carbon footprint.

Nevertheless, it is not unimaginable that the legal, regulatory, and public response to climate change might accelerate in future years, to the point where companies face the risk of fines, lawsuits, and other challenges against which they might wish to insure. Gallagher Re's recent White Paper, [The Rise of Climate Litigation](#), highlighted the small but growing number of current cases that have — or could — set important legal precedents that make companies and their directors liable for climate-related harms or failures of disclosure.

(Re)insurers would be exposed where companies have policies that cover them against litigation costs and risks, such as through D&O (Directors' & Officers') lines. And if key judgments go against companies, setting precedents and encouraging other suits, that could lead to a snowball of claims that could ultimately incentivize lower premiums for clients that are less exposed — because they have lower emissions, or are otherwise seen through their climate actions to be good corporate citizens, thus facing less threat from climate activist lawsuits.

Another potential incentive effect for the industry may come from insurers competing to underwrite lower-emissions activities, and therefore offering them lower premiums than they offer to the fossil-fuel industries on equivalent policies. This in turn would stem from regulatory and public pressure on the insurance companies to cut their own Scope 3 emissions.

Once again, for the stability of the market and the wider economic prospects of the insured, it is imperative that this process is managed and orderly.

Political risks

Climate change has always been a politically contentious subject — particularly in areas with an economic dependence on fossil fuels. But in the past couple of years, as the finance sector's efforts to decarbonize have gathered momentum, so too has the backlash.

The accusation of anti-trust behavior leveled earlier this year by 23 US Attorneys General was followed by the announcement from several insurers that they were withdrawing from the NZIA. Munich Re issued a statement explicitly confirming that its withdrawal was due to "material antitrust risks," though it also emphasized that it would continue to pursue its decarbonization efforts independently.¹³

Wherever the confrontation between US authorities and NZIA ends up, there is little sign that it will undermine the thrust of financial regulation in all major markets towards carbon accounting and the need for underwriters to decarbonize their portfolios.

Ironically, if the challenge raised in the US does make it difficult or impossible for insurers to coordinate plans to decarbonize underwriting, it could increase calls for firmer regulation to enforce the process. It may also increase the likelihood of a disorderly transition in which action on GHG emissions is delayed temporarily, leading to a more abrupt shock — including to companies' access to affordable cover.

Roadmap for underwriting

Underwriting is a step or two behind the investment management side of the insurance sector when it comes to decarbonizing, not least because of the distinct challenges involved.

Nonetheless, decarbonizing underwriting portfolios is a task that the industry must continue to address. For underwriters who have not yet done so, there is a roadmap for moving forward, with three key steps:

- Assessing the carbon footprint of an underwriting portfolio is the essential starting point. Within the last year, methodologies have emerged from the PCAF for attributing GHG emissions. Wider carbon assessments, developed for the asset management sector, are also available. Initiatives such as the Lloyd's-Moody's partnership on quantifying managing agents' underwritten exposure, or tools like Gallagher's Carbon Benchmark, may also help underwriters assess where they stand in the market.
- The exclusion of high-emissions industries is one possible step insurers can take to reduce the carbon footprint of a portfolio, but engagement will be more important if the insurance sector is to play a positive role in an orderly transition.
- Incentivizing the insured is the most challenging hurdle. Finding mechanisms by which insurers can influence the activities of the insured will require new ways of thinking. Product innovation is one route that could provide mutual benefits to both the underwriter and the insured, encouraging the latter to engage in decarbonization initiatives.

One thing is clear, however. Despite the challenges, delaying action on this front only increases the chances of a market dislocation that disrupts the insurance sector and its clients. This risks a disorderly transition to net zero, and might even contribute to a future climate-related financial crisis.

The insurance industry's central purpose is to protect against the worst scenarios — while also working for better outcomes. It is an ethos highly appropriate to the task of decarbonizing underwriting.

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