

# Changing Climate for the Insurance Sector: Research and Insights



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# Foreword

Dear Colleagues,

As the climate crisis intensifies, the insurance industry finds itself uniquely exposed. Its investment patterns create financial and reputational climate-related risk, while its underwriting helps greenhouse gas-intensive industries continue operations contributing to global warming.

The National Oceanic and Atmospheric Administration says that the United States has spent over \$2.54 trillion recovering from disasters causing over \$1 billion in damages each since 1980.<sup>1</sup> Worse, the number of billion-dollar disasters has risen from 3.3 annually in the 1980's to 20 per year for the first three years of the 2020s. More climate-related events create risk for the assets insurers own and the policies they write.

As underwriters, insurers are moving to curtail risk, with a growing number ceasing to offer certain policies in some locations. This includes State Farm's May 2023 decision to stop offering new home insurance policies in California due to wildfire risk, and Farmers' July 2023 announcement that they will stop renewing almost a third of the policies the company has written in Florida.<sup>2,3</sup> While this trims risk exposure, it shrinks the insurance market served, with significant potential negative consequences for insurers (fewer customers equals less opportunity), as well as for customers (who are left with fewer and usually more expensive options).

There is less evidence that insurers are making their investment portfolios climate resilient. The 2019 dataset analyzed in this report showed that U.S. insurers held \$5.7 trillion in assets under management of which \$536 billion was

in fossil fuel-related investments across tar sands, coal, oil & gas, and corporate utilities. This research investigated the breakdown of those investments in the property & casualty and life sectors of insurance and found they are remarkably concentrated, with 16 of the 411 insurers studied holding roughly 50% of the industry's total fossil fuel-related investments. This means a small number of insurers has great influence over the future direction of the industry's collective holdings and that insurers are well-positioned to incentivize decarbonization across the economy.

We hope that insurers, regulators, and other stakeholders read this report in the context of the climate crisis and find urgent reason and opportunity to address the climate-related risks and opportunities related to their investments and underwriting and help accelerate the transition to a low-carbon economy.

Sincerely,

**Kentaro Kawamori**  
CEO, Persefoni

**Mindy Lubber**  
CEO, Ceres

**Tom Reichert**  
CEO, ERM

# Executive Summary

Ceres, Persefoni, and ERM conducted research into the relationship between the fossil fuel industry and the United States insurance industry, with a focus on analysis of the insurance sector's investments in fossil fuel-related assets. Insurers are often large asset owners and therefore have an important presence within the institutional investor sector. However, U.S. insurers often lack an accessible, systematic approach to incorporating climate-related factors into investment decision making.

Quantitative analysis of a large dataset of U.S. insurers' assets compiled by the California Department of Insurance yields a number of insights into fossil fuel-related investment patterns in the insurance industry, including the specific types of fossil fuel-related assets, (tar sands, coal, oil & gas, and corporate utilities) held in 2019. Along with quantitative analysis, the report builds on insight from insurance company investment teams, insurance regulators, and other senior subject matter experts gathered via in-depth interviews and focus groups.

## Important takeaways include:

- In 2019, the top 16 U.S. insurers as ranked by assets under management owned 50 percent of the over \$500 billion in fossil fuel-related assets held by the insurers in the dataset.
- Total investment in fossil fuel-related assets by the insurers in the dataset in 2019 amounted to \$536 billion.
- Some specific firms had unique asset ownership profiles with specific holdings in fossil fuel-related asset types.
- For example, State Farm Insurance held by far the largest absolute stake in both tar sands and coal investments in 2019, at respective amounts of 30.28 percent and 22.92 percent of total investment by the sector.
- Investment policies that focus only on one type of fossil fuel, or only on one type of investment, may result in asset portfolios that are still able to include large fossil fuel holdings.

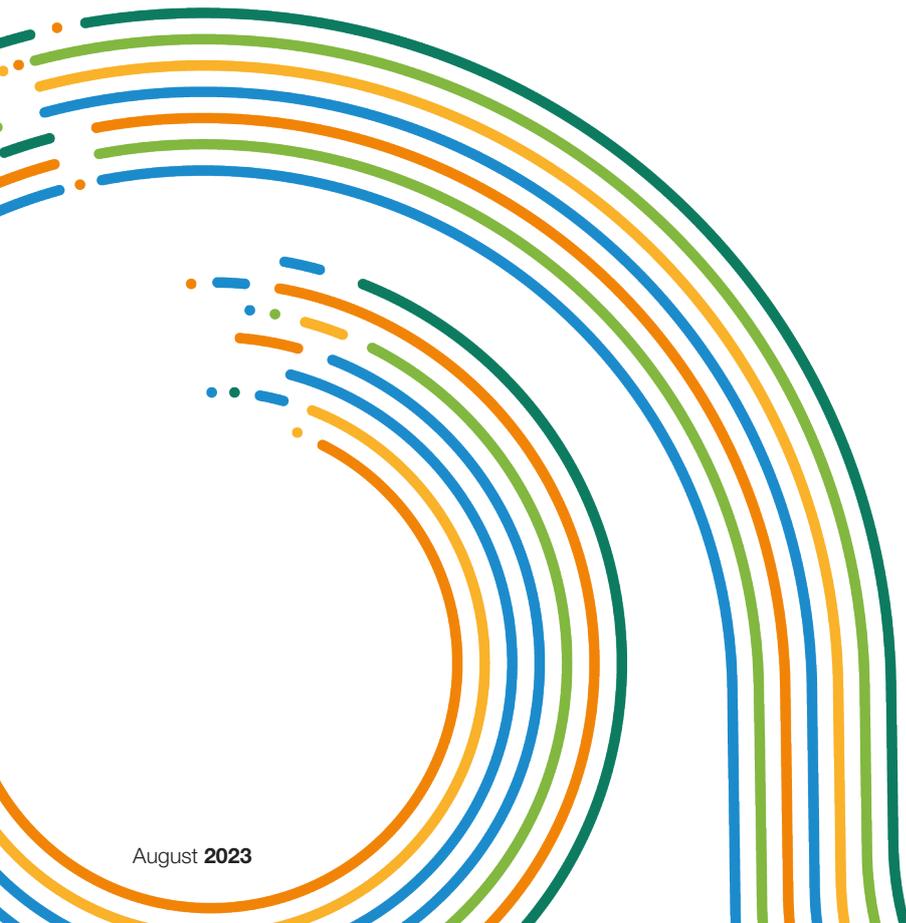
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The financial decisions of the two largest property & casualty insurance companies have a far greater impact on overall fossil fuel-related asset ownership than that of any other companies in the dataset analyzed.

- The U.S.'s largest property & casualty insurance companies hold more sway over the total asset ownership of their sector than the largest life insurers do over their sector because asset ownership among life insurance companies is more broadly distributed.
- The top two U.S. property & casualty companies, Berkshire Hathaway and State Farm Insurance, owned 45 percent of total assets owned by companies in the sector overall, whereas the top two life insurance companies, TIAA Family Group and New York Life, owned 14 percent of assets owned by companies in that sector.

Continued investment in fossil fuel-related assets contributes to climate change, which in turn contributes to increasing physical risk to insured property, which impacts insurers as costs of claims rise. This linkage was evident in California in early 2023, when State Farm and Allstate announced that, given the mounting costs of coverage due to California's increasing propensity for fires and other climate-linked natural disasters, they would not write any new policies for homeowners in the state.<sup>4</sup>

The report also includes an analysis of the potential for U.S. insurers to play an important role in encouraging corporations to transition to low carbon solutions. This includes analysis of the role green bonds play in insurers' investment portfolios. Some U.S. insurers may have moved away from their 2019 asset ownership patterns. However, the lack of publicly disclosed policies regarding insurers' fossil fuel-related assets suggests that the patterns uncovered in this research are likely still at play. Despite the clear signals that the insurance sector is suffering tremendous monetary losses related to physical risks of climate change, U.S. insurers have yet to persuasively demonstrate their commitment to a low carbon future.





# 1 ■ Introduction

The past five years have brought the financial services sector, including insurance, to a crucial turning point as the industry is increasingly impacted by climate change. Insurers’ assets, profits, and business models are vulnerable to climate change’s current and future impacts on the quantification and pricing of risk. Even more fundamentally, insurers’ “business as usual” is enabling, through investments, loans, and underwriting of carbon-intensive activities, the very climate change effects that are impacting both their companies, their customers, and the communities they serve.<sup>5,6,7,8,9</sup>

Some insurers are responding by dropping coverage for new customers and/or by raising premiums where risks are greatest. Others are just beginning to acknowledge the risks that climate change may pose to the bottom line. And some insurers now recognize that their sector has the potential to help ensure the world avoids the worst climate impacts.

The time to act to avoid impacts is now. In 2022, there were 18 climate-related disasters with losses exceeding \$1 billion each in the

United States, with a total of over \$165 billion in economic loss, and there were 20 such disasters in 2021.<sup>10</sup> Continued severe and destructive weather events have resulted in more climate-related insurance claims.<sup>11</sup> In Florida, Louisiana, and elsewhere, property insurance reforms are in motion to provide hurricane retrofitting, ensure homeowners are given fair warning and explanation for rate hikes, and establish a reinsurance relief program to counterbalance insurance rate increases.<sup>12</sup>

The United States is the most exposed country regarding severe weather-related property destruction – experts estimate that 75 percent of global insured losses stemming from 2022’s natural disasters originated in the United States.<sup>13</sup> In 2021, total global economic losses from natural disasters were estimated at \$343 billion with insured losses reaching \$130 billion. While there was a small decrease in 2022, with overall losses reaching \$313 billion and insured losses \$132 billion, the numbers extended a run of years with high losses.<sup>14,15</sup> Insured losses will undoubtedly continue to rise as natural disasters become more frequent and extreme.

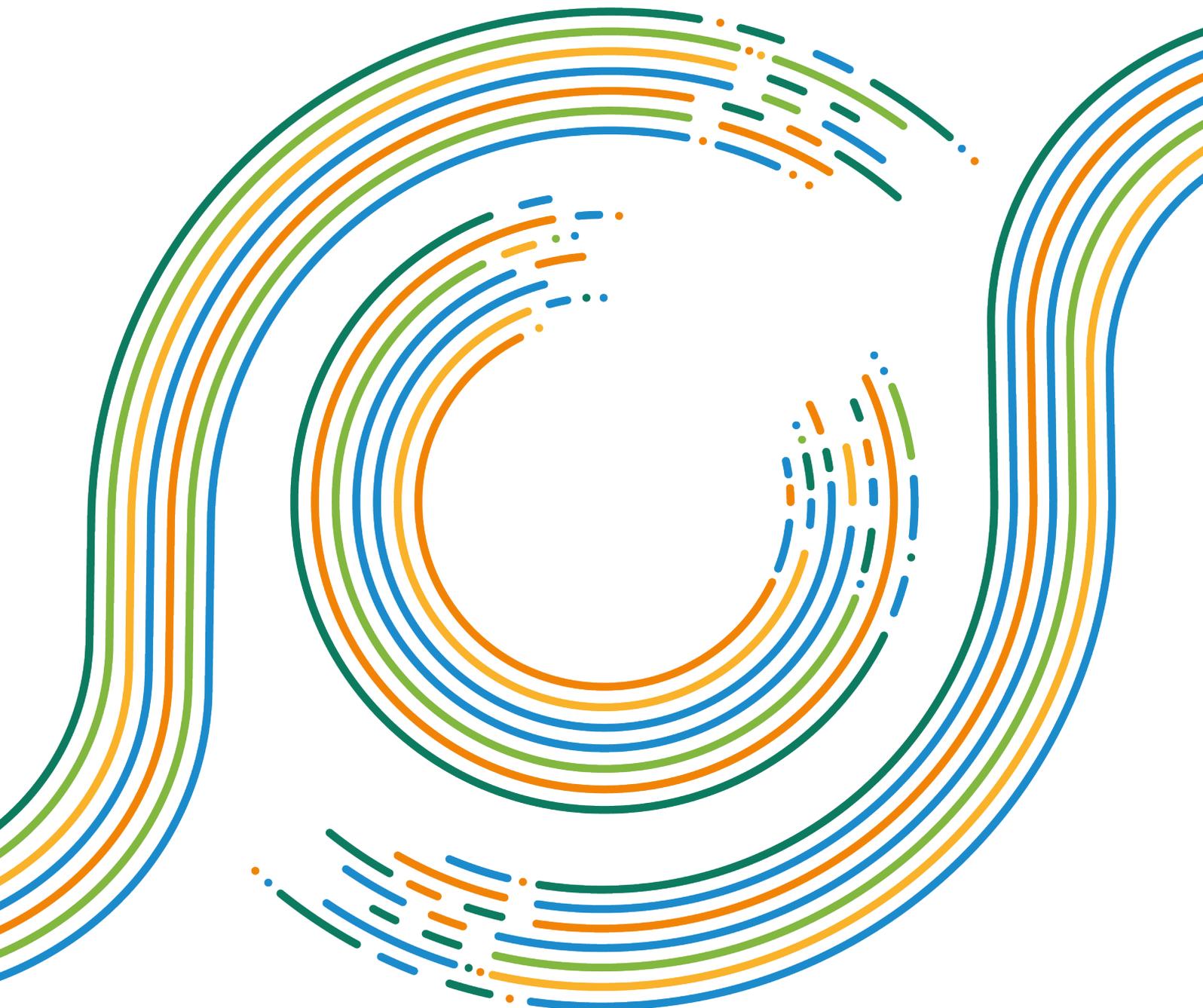
**“We rely on stable markets and do not like unstable markets. But climate change is a long-term situation that is highly unstable, and... it won’t get better. Other types of crises resolve in five years—that’s short term for us. We have seen several financial crises that ebb and flow. But this crisis is not getting better, and we do not know how to handle this. This is why we are so concerned about climate change – it’s a fundamental risk for our business model.”**

ESG Investing Lead, EU- headquartered Insurance Group

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The insurance industry is based on predicting the future, on understanding how patterns detected today presage future wins and losses, successes or failures, births and deaths. Damage to infrastructure and property, alongside disruptions to business as usual, could create significant claims on existing policies. For example, rising sea levels paired with increasingly intense tropical cyclone patterns could create immense claims in low-lying coastal cities around the world, from

Miami to Osaka.<sup>16,17</sup> Health and life insurers will likely see increased costs too, with researchers already tracking a range of potential future epidemiological risks.<sup>18</sup> What's more, because of the difficulty in predicting precisely how the myriad impacts of climate change will interact with one another, insurers must develop ever more sophisticated catastrophe modeling and actuarial techniques to ensure predicted future risks are adequately understood and properly quantified.



# 2. Research Approach



The foundation of this report is a quantitative analysis of U.S. insurance sector investments in fossil fuel and green bonds and the ways that insurers' approaches to fossil fuel exposure in investments and underwriting has evolved over the past five years. The analysis was done using the data captured in a California Department of Insurance (CDI) database of U.S. insurance companies operating in California.\* This was complemented by a series of focus groups and interviews with insurance industry subject matter experts. The report also explores potential future changes for the insurance industry regarding the underwriting of fossil fuel-related activities and investment in green bonds. The insurance sector's role in communicating and quantifying climate risk is covered in this report only to the extent that those topics relate to firms' communication and public disclosure of policies regarding fossil fuel-related investment and underwriting decisions.

The focus of the quantitative analysis of insurance sector investment in fossil fuel-related assets is the California Department of Insurance dataset and the insight it provides into the climate impact of insurance sector investments. The CDI dataset reveals unique insight into fossil fuel-related decision-making by a broad range of United States insurance providers. The dataset, released in April 2022, consists of detailed 2018 and 2019 year-end asset information for insurers operating in California. As insurers reporting to the CDI database comprise 77% of all insurers operating in the United States in 2018-2019, the dataset is broadly representative of the overall U.S. insurance sector. Full discussion of the dataset origins, analytical methodology, and global comparative context is found in Appendix 1.

\* For more detail, see Methodological Appendix.

\*\* See appendix for more information on the California Department of Insurance dataset and the S&P Global analysis.

The dataset analysis is complemented by insight and information derived from engagement and consultation with representatives of insurance sector investment teams, state insurance regulators, and other insurance industry experts. These conversations – two focus groups and a series of in-depth interviews conducted between March and May 2023 – focused on insurance industry investments in fossil fuel-related assets, underwriting of fossil fuel-related projects and companies, and the regulatory context faced by insurers operating in the U.S. The focus groups and interviews increased understanding of the current-day status of insurance sector approaches and policies regarding such investments and uncovered insights into changes that may have occurred between the last CDI dataset reporting period and 2023. Additional discussion of the methodology undertaken for these consultations and focus groups is also in Appendix 1.

The overall aim of this research project is to examine the climate impact of insurance sector investment decisions and to examine the industry's progress towards and appetite for more climate-friendly policies. This research is reliant on data the CDI data.<sup>19</sup> and analysis of it conducted by the data and research firm S&P Global Market Intelligence in 2022.<sup>20</sup> This report builds its quantitative analysis on the S&P Global findings, which leveraged S&P's own financial data to label insurers' global fossil fuel-related assets.\*\* This report also builds upon a previous study of the fossil fuel-related assets held by the insurance sector published by Ceres in 2016.<sup>21</sup>

## Should Corporate Utilities Be Considered Fossil Fuel-Related Assets?

Fossil fuel-related assets are of financial concern due to their contributions to overall greenhouse gas emissions and due to their risk of becoming “stranded assets,” which occurs when organizations must take losses and abandon capital investments in high-emitting activities. In addition to having many transition-related financial opportunities, corporate utilities are at risk of the financial effects of stranded assets<sup>22</sup> due to emission-intensive electricity generation and gas infrastructure assets that many companies own. For many companies in the sector, their largest assets include electricity transmission and distribution infrastructure, which are key to the future low-carbon energy system, and the value of those assets does not depend on ongoing emissions.

Most electricity globally is generated using fossil fuels. In 2019, approximately 63 percent of worldwide electricity generation was produced using fossil fuels, the rest by renewables including hydro plus nuclear sources. The proportion of worldwide electricity generation underpinned by fossil fuels declined to approximately 61 percent in 2022.<sup>23</sup>

The quantitative analysis undertaken in this report follows S&P Global’s asset labeling approach, which included utilities as ‘fossil fuel-related assets’ within its analysis of the 2019 California Department of Insurance (CDI) data.<sup>24, 25</sup> While S&P noted that some energy generated by corporate utilities each year is derived from non-fossil fuel sources, they explain that “boundaries for fossil-fuel classification were drawn to focus on sectors that would incur risks in a scenario where fossil fuel-related emissions are being limited and investments would result as ‘stranded assets.’”<sup>26</sup> Additionally, S&P’s climate risk

and resilience analysis methodology states that “the Simple Industry [Classification] ‘Independent power and renewable electricity producers’ sector is determined to be fossil fuel aligned due to the likely fossil fuel exposure from independent power providers that cannot be separated from renewable electricity producers,” and that “[f]or utilities in the Trucost universe, if a portion of the revenue is fossil-fuel related, 100% of the conditional fair value was determined to be fossil fuel-related.”<sup>27,28</sup>

The percentage of electricity generated without fossil fuels is only one indicator of what is happening in the utilities sector. Many utilities are acting to lower fossil fuel exposure while also expanding clean energy resources, and making significant investments to support those plans. As a result, the corporate utility category may become less reliable as an indicator of fossil fuel use. However, given S&P’s classification, and given that data provided by insurance companies to the CDI about their 2018 and 2019 holdings does not include information about the proportion of renewable sources within each asset’s energy mix, assets in the corporate utility category within this report are all classed as fossil fuel-related regardless of how much power any one of them might generate from renewable sources at time of this publication or in the future.

To ensure that the analysis did not overlook any key points by following S&P Global’s lead on the labeling of utilities, this report undertook a sensitivity analysis of the potential impact of the hypothetical case in which corporate utility assets were not classified as fossil fuel-related assets. The overall impact of removing utilities from

the analysis (based on potential renewable generating capacity) was not determined to outweigh the benefit of incorporating them into the analysis based on potential future stranded assets concerns.\*

### **The role of corporate utilities in the global low-carbon transition**

Although the corporate utilities sector historically has been heavily dependent on the use of fossil fuels, it has a significant role to play in moving the world towards a zero-emissions future. Beyond providing direct access to electricity for residential and commercial customers, corporate utilities are pivotal to decarbonization in other sectors.

To reach global GHG emissions goals, utilities will need to provide sufficient access to electric power to enable the decarbonization of industries such as transportation and manufacturing. Towards that end, utilities in the United States and around the world are investing significant amounts of capital to develop and expand zero-carbon electricity sources.

Over the past two decades, utilities sector carbon emissions have declined significantly in some geographical regions while rising globally. In the U.S., emissions from electricity and heat production reduced by 37 percent between 2000 and 2020. However, globally emissions from electricity and heat production rose by 43 percent over the same time period.<sup>29</sup> The global rise is due to huge escalation in global demand for energy generally and electricity specifically, a good portion of which is being met with fossil-fuel generated electricity, particularly in the huge and growing markets represented by India and China.

Long-term investments in corporate utility assets, such as the investments represented within the insurance sector investment portfolios analyzed in this report, are a crucial factor in funding the transition to a clean energy future. Additionally, the utilities sector in the United States and globally allocates funding to ensure that electricity systems are resilient to the physical risks of climate change.

As in most industry sectors, many corporate utilities in the U.S. and around the world have disclosed emissions reduction targets and climate adaptation strategies. Investors should ensure that such emissions reduction targets are ambitious and doable.

Insurers, like all institutional investors, have a responsibility to ensure that the assets in which they are invested have set appropriately ambitious commitments for emissions reductions and climate action. Investors should also engage regularly to ensure those firms are making progress towards all stated goals and targets for decarbonization. Many corporate utilities in the United States and globally have announced commitments to reduce emissions by moving away from fossil fuel energy sources and towards renewable sources. Beyond target setting, the best and strongest signal of a specific firm's commitment to a clean energy future is the extent to which they are enabling the build of renewables in core business plans through ownership and/or procurement. Insurers, like all institutional investors, have a responsibility to engage actively and frequently with utilities in the US and globally to ensure that the sector continues to make adequate progress towards disclosed targets.

\* Representations of how the key quantitative takeaways would change if corporate utilities were not designated as fossil fuel-related assets can be found in Appendix 2. Under that scenario, corporate utilities are redesignated as being standard, non-fossil fuel-related assets. However, any knock-on effects that might result from the utility sector's separation from fossil fuels (for example, the potential financial effect on oil & gas assets of losing utilities as value chain partners) are not calculated, as that is outside the scope of this research.

# 3. The Insurance Sector as Institutional Investors



The past five years have seen a rapid evolution of institutional investors' understanding and appreciation of the importance of climate-related investing. Understanding and evaluating the financial risk of holding fossil fuel-related assets is now considered standard practice across all institutional investor classes, even those that do not specifically frame themselves as ESG investors. While sustainability-related investment decisions used to focus on screening out companies with negative environmental and social impacts, the increasing availability of high quality ESG data has allowed investors to incorporate nuanced evaluations of how ESG issues and trends affect companies' ability to grow and thrive. Indeed, 2018, the first year of fossil fuel-related asset ownership data included in the CDI dataset, in many respects marked the beginning of an era of mainstreamed sustainable finance.\*

Despite critiques, it is now the norm to view climate and other ESG factors as relevant to investors' assessment of a company's overall performance and capacity for long-term growth. Against this backdrop of financial sector discourse on climate, the insurance sector has received comparatively little attention, especially in the United States. This report seeks to analyze the extent of investment in fossil fuel-related assets by the U.S. insurance sector in 2018 and 2019, the most recent years of data available and what the insurance sector is doing to ensure its investments are compatible with the low carbon energy transition.

As institutional investors, insurers are well positioned to support the energy transition and mitigate the worst effects of climate change based on the role they play as providers of capital. While insurers are highly sophisticated in responding to climate risk regarding liabilities, they have been much less attentive to the matter regarding their assets. Recent research on insurance sector general accounts found that by 2021, 60 percent of surveyed insurers that did have a responsible investing policy had only begun doing so between one and five years ago.<sup>30</sup> That report noted that "ESG adoption among insurance general accounts is still in the early stages, but there is a focus on potential regulation in the industry that could make climate-related reporting compulsory."<sup>31</sup>

The insurance sector is a large but often overlooked and misunderstood segment of the institutional investment community. While asset managers and other investors have received significant scrutiny for the climate-related impact of their investments in fossil fuel-related assets, insurers have not received a proportional share, especially considering the size of their assets under management and their impact on society through their underwriting.<sup>32</sup>

\* This change may be traced to the 2018 Letter to CEOs from Blackrock, a headline-grabbing missive that explicitly called for companies to contribute positively to society or risk losing the firm's support, setting off what the New York Times characterized at the time as a "firestorm." The letter told CEOs that Blackrock expected that their articulation of their company's strategy for long-term growth must include an understanding of "the societal impact of your business as well as the ways that broad, structural trends – from slow wage growth to rising automation to climate change – affect your potential for growth."<sup>33</sup>

## Changing Climate for the Insurance Sector: Research and Insights

The performance of any financial sector company, including insurance companies, reflects its actions as both investor and corporation. There are three primary factors that contribute to insurance companies' performance regarding impacts, risks, and opportunities connected to climate change:

- **Investing as Asset Owners:** Insurance as a commercial undertaking is built on the investment of funds that have been paid to a company by its clients in the form of premiums to offset potential future claims and pool risks. Insurers are asset owners responsible for investing funds in a manner maximizes profits while ensuring claims will be covered and insuring entities will continue to exist. They can accomplish this with investments that are more or less positive in climate terms.
- **Underwriting:** By underwriting business undertakings, insurers provide the necessary underpinnings for corporations and individuals to gain the financing and permitting necessary to operate. What they underwrite and do not underwrite, and what they charge for those underwriting services, has a significant impact on our climate future. When insurers raise premiums – or refuse to provide cover at all – many undertakings grind to a halt.<sup>34</sup> Refusing cover to an emissions-intensive undertaking can be seen as both a questioning of the undertaking's social license to operate and a reflection of concerns over potential stranded assets or regulatory restrictions.<sup>35</sup>

- **Risk Management and Communication:** For many corporations, communities, and individuals, insurance premiums are the primary mode by which risk is understood and quantified. Insurers are uniquely positioned to assess and communicate the potential current and future dangers of climate change through discussions of insurance rates, coverage, and premiums. In this way, insurers can help crucial stakeholders and decision-makers in industries particularly vulnerable to physical risks of climate change, such as real estate and agriculture, as well as other stakeholders in the private and public sectors, understand the risks and opportunities that lie ahead.

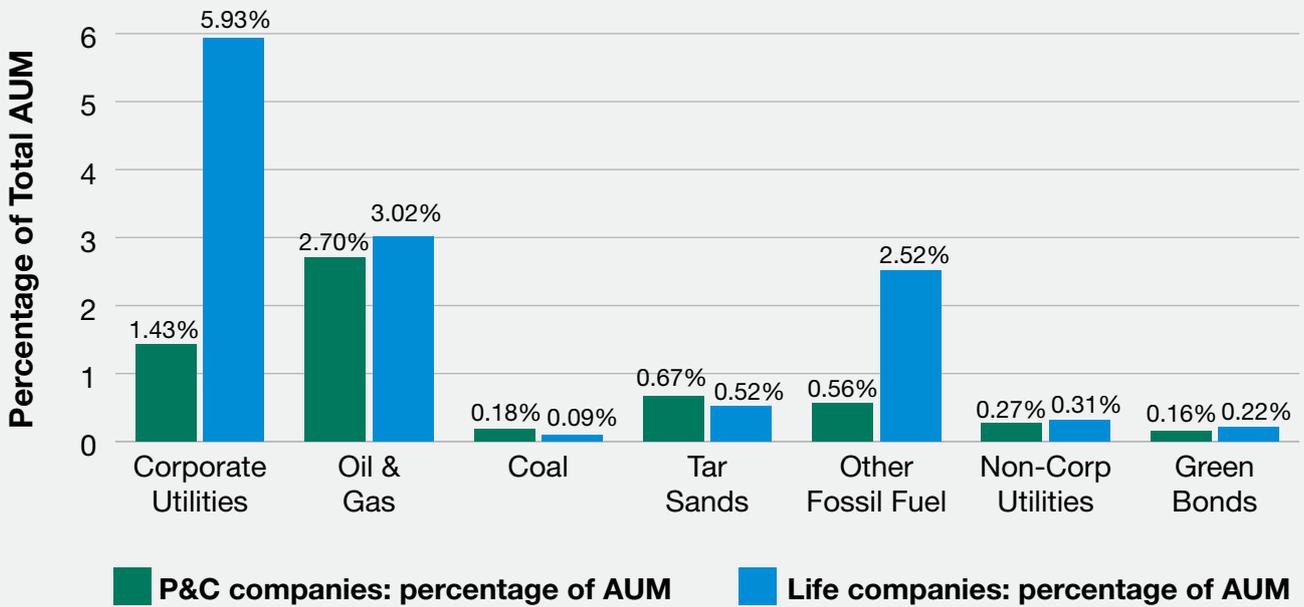
In 2021, all assets owned by insurance companies globally amounted to approximately \$44 trillion.<sup>36</sup> In the United States, insurance general account total invested assets were \$7.5 trillion in 2021, projected to rise to \$8.3 trillion by 2025. Of that total, more than two-thirds were held by property & casualty (P&C) insurers.<sup>37</sup>

Gross written premiums covered by insurers worldwide amount to approximately \$7.2 trillion.<sup>38</sup> Insurers wrote the highest proportion of premiums (38.1 percent) in the United States, over three times higher than China, the second ranked market.<sup>39</sup>

ERM’s research shows that, in 2019, the top 16 U.S. insurers ranked by assets under management owned 50% of the \$500+ billion in fossil fuel-related assets held by the industry. Total investment in fossil fuel-related assets by the insurance sector in 2019 amounted to \$536 billion.

Recent research has shown that by limiting financed emissions, institutional investors across categories, from asset managers to endowments to private equity, can significantly limit their exposure to climate risk while at the same time reducing the impact of companies’ contributions to the worst effects of climate change.<sup>40</sup> The global financial sector, including the insurance industry, can reduce systemic risks and play a crucial role in ensuring emissions reductions are enacted within the time horizons outlined by the United Nations Intergovernmental Panel on Climate Change and articulated in the Paris Agreement.<sup>41</sup> This occurs through changing the way they invest. There are three separate components to the change: providing risk mitigation to fossil fuel-related companies undergoing decarbonization, supporting a clean energy future via investments in new energy, and encouraging decarbonization via corporate engagement and/or divestment of existing investments in fossil fuels.

**Figure 1**  
**Investment breakdown by sector**  
**(percentage of assets under management (AUM) and Green Bonds)**



The United States insurance sector has notable holdings in a range of different fossil fuel-related investment types. This graphic illustrates the relative size of these investments, as well as in Green Bonds, for both life insurers and property & casualty (P&C) insurers, based on the 2019 California Insurance Commission dataset.

# 4. ■ **Financed Emissions and Insurance-Associated Emissions**

As noted, the past five years have seen increases in public understanding and public scrutiny of the role of investors in responding to climate change. In particular, there has been a rise in investor understanding of Scope 3 emissions and their role in the overall range of corporate activities required to address climate change. Among the categories of Scope 3 emissions that have received the most attention are two that affect the insurance industry: financed emissions and insurance-associated emissions.

Determining Scope 3 emissions exposure is an effective way of assessing a portfolio's overall exposure to fossil fuels and its exposure to industries that are users of fossil fuels. As such, it is valuable for investors to examine the Scope 3 financed emissions impacts of investment decisions as a way to understand big-picture climate impact on the portfolio level. Financed emissions-based approaches to climate-aware investing may differ somewhat from the asset-level engagement approach but can provide valuable insight for investors.

## **Corporate Greenhouse Gas (GHG) Emissions Terminology\***

### **Scope 1 emissions:**

Direct GHG emissions occurring from sources that are owned or controlled by the company.

### **Scope 2 emissions:**

GHG emissions from the generation of purchased electricity consumed by the company.

### **Scope 3 emissions:**

All indirect emissions that do not fall under Scope 2. Scope 3 emissions are a consequence of the activities of the company but occur from sources not owned or controlled by the company.

### **Financed emissions:**

A category of Scope 3 emissions produced through loans and investments in entities that themselves generate Scope 1 and 2 emissions.

### **Insurance-associated emissions:**

A category of Scope 3 emissions produced through underwriting individual and/or corporate activities that themselves generate Scope 1 and 2 emissions.

\* Adapted from Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>)

## Guidance For Approaching Financed Emissions In The Insurance Sector

The methods for incorporating financed emissions into Scope 3 accounting that the Task Force on Climate-related Financial Disclosures (TCFD), ESG rating providers, NGOs, and other entities use focus on for the ways to quantify emissions that are most applicable to asset management firms.<sup>42</sup> Certain banks, impact investors, and asset managers have led the way in developing approaches for financed emissions accounting, with their subsequent TCFD-aligned disclosures often generating best practices and peer takeaways for that sector.<sup>43</sup> Other financial services subsectors, including insurance, have lacked that level of guidance.<sup>44</sup> Although approaches to Scope 3 emissions accounting in the insurance sector have been improving year over year, dataset limitations and disclosure gaps mean some recent analyses still do not fully account for all insurance industry Scope 3 emissions.<sup>45</sup>

In September 2019, PCAF (Partnership for Carbon Accounting Financials) issued a guidance document, “The Global GHG Accounting and Reporting Standard Part A: Financed Emissions,” which provides detailed guidance to ensure consistency and completeness in accounting for financed emissions.<sup>46</sup> When an institutional investor provides funding for a company to establish or maintain fossil fuel extraction operations, it is adding to its own balance sheet of Scope 3 emissions. Since investors

are typically involved across multiple sectors and geographies, policies related to reduction of financed emissions could decisively impact the global rate of climate change not just by curtailing emissions within a single industry, but by curtailing a broad range of emissions-intensive activities with one change in policy.

In November 2022, PCAF issued a new guidance document, “The Global GHG Accounting and Reporting Standard Part C: Insurance-Associated Emissions” focused specifically on insurance-associated emissions beyond the Scope 3 categories insurance companies would find covered in its initial financed emissions guidance.<sup>47</sup> This guidance lays out an accounting standard for Scope 3 emissions in underwriting portfolios for insurance and reinsurance, separate from the financed emissions those same companies generate through their investment activities. PCAF notes that its guidance only covers carbon accounting for commercial lines of insurance and personal auto insurance because the Scope 3 emissions of other insurance types has yet been determined. However, these two categories ensure the activities and entities that have the most significant Scope 1 and 2 emissions, carbon-intensive business enterprises and personal automobiles.

**“At a high level, we generally do not agree with divestment as policy—we need to maintain exposure to companies and assets that are going to play a role in the energy transition. All of this work has to nest within the U.S.-based understanding of what our fiduciary duty really means.”**

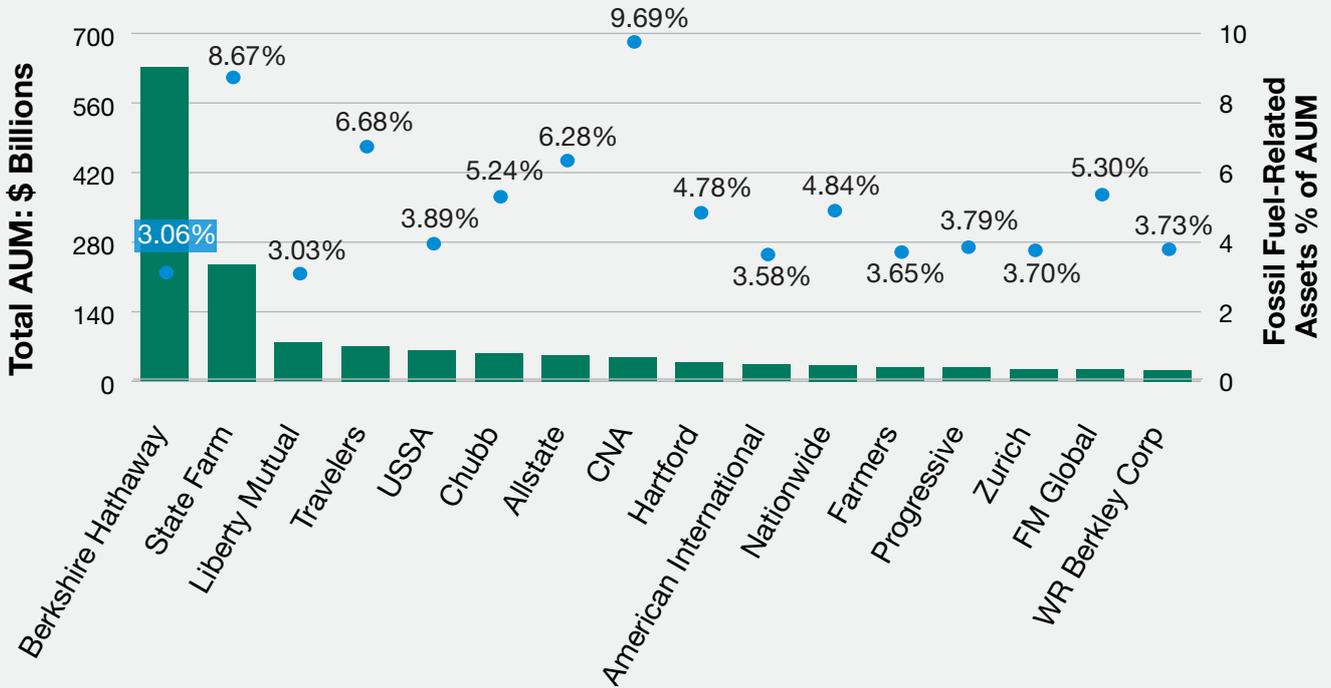
Responsible Investing Lead, U.S. Insurance Group

**“We have integrated ESG into our decision-making processes and look to consider ESG risk factors when making new investments. As part of our ESG initiative, we drafted a responsible investment policy, that among other things, specifies areas that we choose to avoid, such as coal.”**

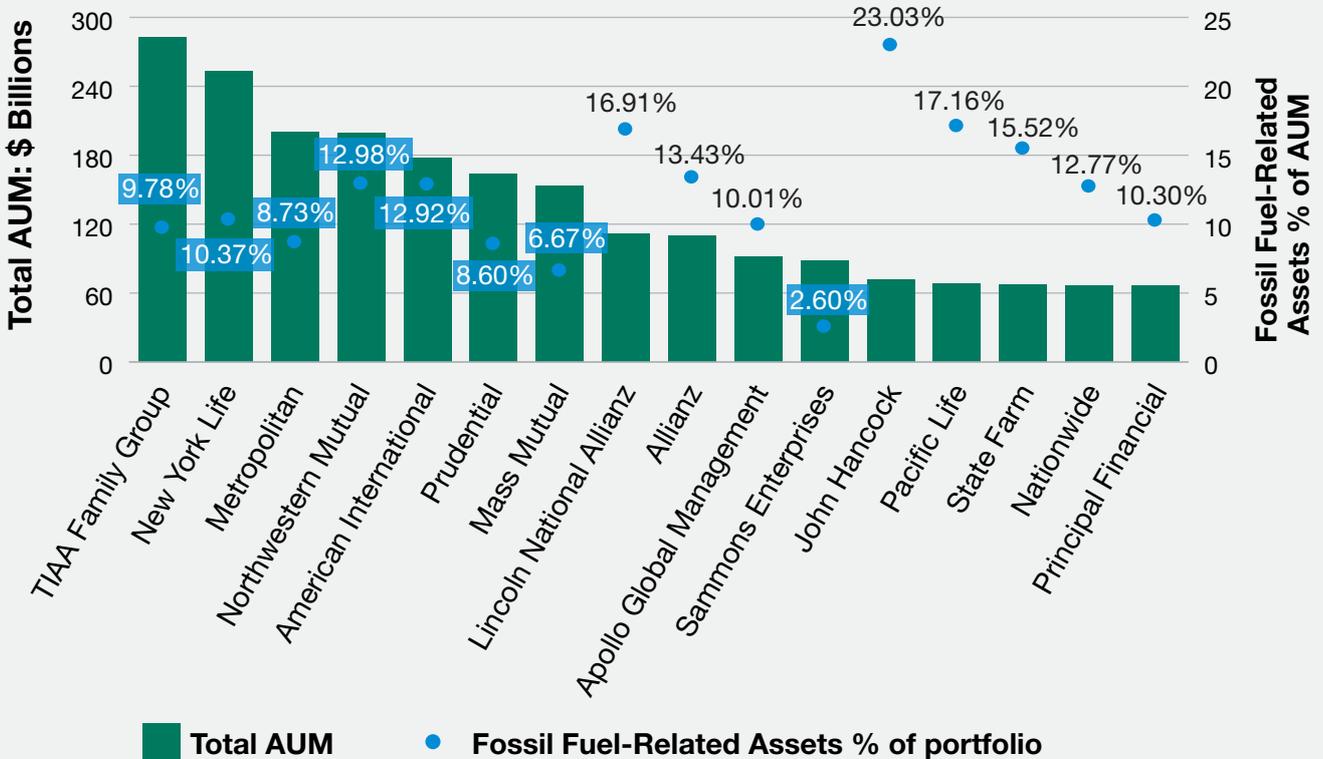
Investment Lead at a U.S. Insurance Firm

**Figure 2**  
**Total AUM vs Fossil Fuel-Related Assets Percentage of Portfolio**

Top 16 P&C Companies



Top 16 Life Companies



Insurers are some of the largest asset owners in the financial system, and many of them have large holdings in fossil fuel-related assets. This visualization shows the investing power of the property & casualty companies, as well as the magnitude of their fossil fuel-related investments. On average, property & casualty companies have a lower percentage of investment in fossil fuel-related assets than life insurance companies.

# 5. The U.S. Insurance Sector In Focus: Quantitative Research And Related Observations

Research into the climate-related aspects of insurance sector asset ownership has at times been stymied by a lack of data about United States insurers' holdings.<sup>48</sup> This report analyzes data from 2018 and 2019 to provide insight into patterns and comparisons of the fossil fuel-related asset ownership of most insurance companies operating in the United States.<sup>49</sup>

The analysis of insurance company investments is conducted at the Group level, as this approach provides the most useful insight into investment patterns. The largest U.S. insurers today typically consist of several linked insurance companies with differing portfolios, niches, and goals, all operating under a single leadership umbrella and a single "Group" name. For most insurers, larger size is considered an advantage, as it allows for more effective risk distribution across the company and absorption of the costs of claims. The U.S. insurance sector has seen significant consolidation in recent decades, resulting in a very concentrated industry dominated by a small number of very large companies, and significant consolidation of investing approaches as well.<sup>50</sup> Additionally, as insurers grow in asset size, the decision-making of their investment teams has proportionally more impact on the overall financial system.

## Comparisons of 2018 and 2019 Datasets

Comparisons between 2018 and 2019 detected very few major portfolio changes within the asset holdings of reporting companies.\* All investments increased slightly year-on-year, which is assumed to be in line with the value of holdings increasing in line with general rates of inflation. Green bond-related investment increased markedly year-over-year 2018-2019 by 128 percent, but this change was in line with the increase in annual issuance volume and does not necessarily indicate any change in insurance sector investment priorities.<sup>51</sup> Because the CDI dataset only includes two years of data, there was not enough data to identify multi-year trends.

Though variations in fossil fuel-related asset ownership were observed 2018-2019, these differences were most likely due to wider market trends and not active investment choices. Fossil fuel products and prices can be affected by any events with potential to disrupt the flow of oil and products to the market, including geopolitical- and weather-related developments. These types of events can lead to actual disruptions or create uncertainty, which combined with the relative inelasticity of both energy supply and demand leads to higher volatility in fossil fuel-related asset prices.<sup>52</sup> Since the value of investments in the asset portfolio is expressed as fair value of holdings, all investments included in the analysis are subject to market volatility.

\* For further discussion of the approach to data analysis, please see Appendix 1.

## Concentration of Asset Ownership

When ranked by size of asset ownership, the top 16 insurance firms out of the 411 insurance firms of all sectors operating in California in 2019 held 50 percent of the total assets held by the United States insurance industry overall.\* As a result of this top-heavy concentration of holdings, the decisions made by investment teams within these top 16 firms will have a pronounced impact on any interpretation and/or analysis of the entire industry's investing approach. In 2019, the top 16 firms included in the CDI dataset, regardless of insurance business line, owned assets worth \$3.1 trillion USD, which make up 55 percent of the total \$5.7 trillion assets represented in the dataset. Of note, the dataset shows that large insurance groups may own stakes in various fossil fuel-related enterprises that may be large enough to impact those issuers' decisions and strategy.

An insurance company operating in the P&C sector will in general have a much different approach to investing than a life insurance company. This is due to different risk profiles and needs for liquidity across firm types.\*\* Examining whether different companies from the two insurance business lines in the CDI dataset displayed differences regarding fossil fuel-related assets provides insight as to whether differences in investing approach are reflected in the respective sectors' fossil fuel-related holdings. Because of the potential impacts of sectoral investment approach on fossil fuel holdings, this analysis analyzed the top 16 companies by assets under management

within each sector in addition to the overall top 16 insurers.\*\*\* This provided insight into any patterns and differences in the ways that different types of insurance companies hold fossil fuel-related assets.

This analysis uncovered several important differences in asset concentration patterns between life and P&C companies. Total assets under management were much more evenly distributed in the largest firms in the life sector than in the P&C sector. The top 16 life insurance companies owned 58 percent of total assets owned by all companies in that sector. For life insurance companies, the size of each company's AUM decreased at a steady pace from the largest company to the smallest.

This is not the case for P&C companies, where the total value of AUM was heavily weighted to the top 16 firms in that sector and, even within that top 16, heavily weighted to the two largest firms. The very largest firms in the P&C sector hold by far the largest AUM in the sector.

The pattern of distribution observed for the overall value of assets within each sector holds true for fossil fuel-related assets as a subset of total assets. Fossil fuel-related asset ownership was more evenly distributed across the top 16 firms in the life sector than the top 16 firms in the P&C sector. It is important to note that the percentage of fossil fuel-related asset ownership within a particular insurer's portfolio, as a component of that firm's AUM, may be higher or lower than the average. This is proportional to its specific AUM and not an absolute value. This shows that the overall distribution of fossil fuel-related assets is less

\* Fossil fuel-related asset holdings for these firms are in line with their size within the overall sector. All 16 of the United States' top insurers are contained in the CDI dataset. Please refer to Appendix 1 for the full methodology of dataset analysis.

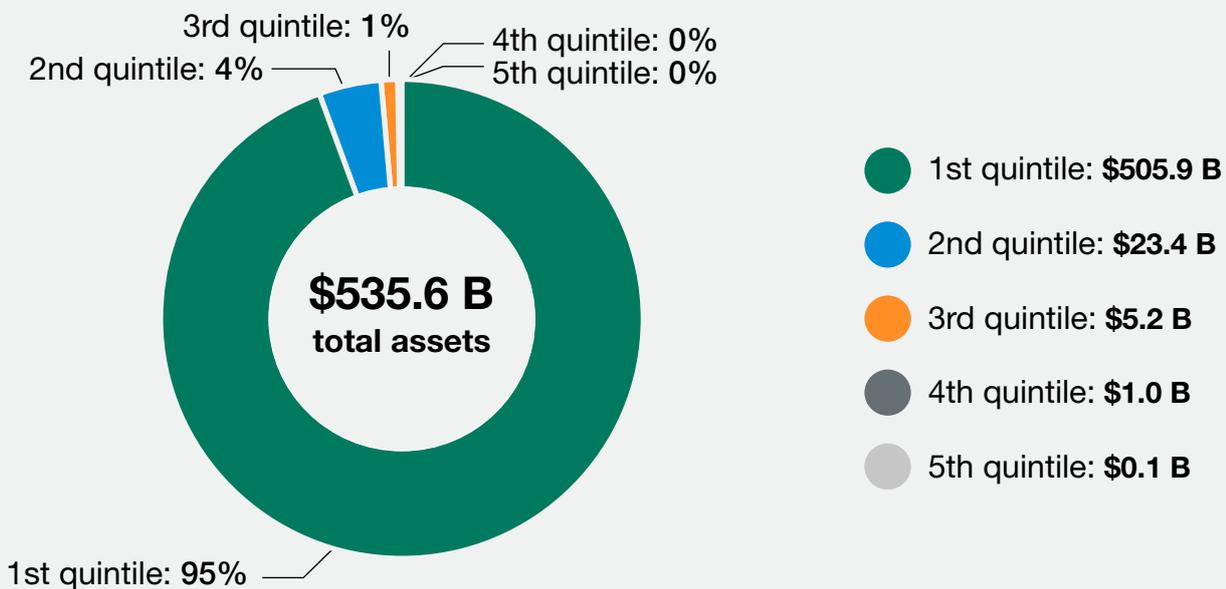
\*\* For more information on this pattern, see this report's section "The Role of Bonds in Insurance Investment Portfolios."

\*\*\* Sectors analyzed were property & casualty and life. No health insurers are among the top 16 insurers by size of AUM, as the asset ownership size of all firms in the health sector is significantly smaller than in the P&C and life sectors.

clearly weighted towards the largest firms in the life sector than in the P&C sector. The analysis of the CDI dataset shows that in 2019, the top two P&C companies owned 44 percent of total assets owned by P&C companies overall. Thus, the investing decisions of the largest P&C companies have had a far greater proportion on the sector's combined investing than those of the other 267 P&C companies included in the dataset. In contrast, the top two life companies owned only 14 percent of assets owned by life companies overall. This suggests that among life insurance companies, the impact of each individual firms' financial decisions is proportionally lower than in the P&C business line. However, since the life insurance sector holds more total assets than the P&C sector, life insurers still overall has more total impact on the real economy than P&C insurers do.

The size of an individual insurer's total AUM did not show any relationship to the proportion of fossil fuel-related assets within that portfolio. Larger firms were not more likely or less likely to hold fossil fuel-related investments than were smaller firms. This finding suggests that overall, AUM does not impact an insurer's decision-making regarding fossil fuel-related investments. Smaller firms are just as likely to hold fossil fuel-related assets as larger firms are, but the overall size of the AUM of larger firms means that the value of their holdings is larger.

**Figure 3**  
**Fossil fuel-related asset distribution, 2019**



Asset distribution among United States insurers is relatively top-heavy. The first 20 percent of insurers ranked by size of assets under management (the top 82 companies out of the 411 in the CDI dataset), owned 95 percent of all fossil fuel-related assets in the dataset in 2019.

**Table 1**

**Fossil Fuel-Related Investment, AUM, and Green Bonds for Top 16 Companies in 2019  
Regardless of Sector**

Insurance Group	Ranking	Assets Under Management	Total Fossil Fuel-Related Investments Including Coal	% of Fossil Fuel-Related Assets to Assets Under Management	Green Bonds	Green Bond % of AUM
Berkshire Hathaway	1	\$650 B	\$20.9 B	3%	\$0.00 B	0.00%
State Farm	2	\$303 B	\$30.9 B	10%	\$0.71 B	0.23%
TIAA	3	\$283 B	\$27.7 B	10%	\$0.38 B	0.14%
New York Life	4	\$253 B	\$26.2 B	10%	\$1.17 B	0.46%
American International	5	\$212 B	\$24.2 B	11%	\$0.36 B	0.17%
Metropolitan	6	\$201 B	\$17.5 B	9%	\$0.11 B	0.05%
Northwestern Mutual	7	\$199 B	\$25.8 B	13%	\$0.42 B	0.21%
Prudential	8	\$164 B	\$14.1 B	9%	\$0.09 B	0.06%
Mass Mutual	9	\$153 B	\$10.2 B	7%	\$0.17 B	0.11%
Allianz	10	\$122 B	\$15.2 B	12%	\$0.27 B	0.22%
Lincoln National	11	\$112 B	\$18.9 B	17%	\$0.07 B	0.06%
Nationwide	12	\$99 B	\$10.0 B	10%	\$0.29 B	0.30%
Apollo Global Management	13	\$94 B	\$9.3 B	10%	\$0.06 B	0.06%
USAA	14	\$89 B	\$5.7 B	6%	\$0.03 B	0.03%
Sammons Enterprises	15	\$88 B	\$2.3 B	3%	\$2.31 B	2.63%
Allstate	16	\$87 B	\$7.5 B	9%	\$0.12 B	0.14%

This chart displays data for the top 16 largest insurers by overall AUM. Data include total assets under management, total fossil fuel-related investments, and total green bonds investments.

**Table 2**  
**Fossil Fuel-Related Investment, AUM, and Green Bonds for Top 16 P&C Companies in 2019**

Insurance Group	Ranking	Assets Under Management	Total Fossil Fuel-Related Investments Including Coal	% of Fossil Fuel-Related Assets to Assets Under Management	Green Bonds	Green Bond % of AUM
Berkshire Hathaway	1	\$632 B	\$19.3 B	3.06%	\$0.00 B	0.00%
State Farm	2	\$236 B	\$20.4 B	8.67%	\$0.55 B	0.23%
Liberty Mutual	3	\$78 B	\$2.3 B	3.03%	\$0.58 B	0.75%
Travelers	4	\$71 B	\$4.7 B	6.68%	\$0.28 B	0.40%
USAA	5	\$63 B	\$2.4 B	3.89%	\$0.03 B	0.05%
Chubb	6	\$57 B	\$3.0 B	5.24%	\$0.24 B	0.42%
Allstate	7	\$53 B	\$3.3 B	6.28%	\$0.11 B	0.20%
CNA	8	\$48 B	\$4.7 B	9.69%	\$0.05 B	0.10%
Hartford	9	\$39 B	\$1.9 B	4.78%	\$0.03 B	0.09%
American International	10	\$34 B	\$1.2 B	3.58%	\$0.02 B	0.07%
Nationwide	11	\$33 B	\$1.6 B	4.84%	\$0.01 B	0.04%
Farmers	12	\$28 B	\$1.0 B	3.65%	\$0.05 B	0.17%
Progressive	13	\$28 B	\$1.0 B	3.79%	\$0.00 B	0.00%
Zurich	14	\$24 B	\$0.9 B	3.70%	\$0.13 B	0.53%
FM Global	15	\$24 B	\$1.3 B	5.30%	\$0.03 B	0.13%
WR Berkley	16	\$23 B	\$0.9 B	3.73%	\$0.02 B	0.10%

This chart displays data for the top 16 largest P&C insurers. Data include total assets under management, total fossil fuel-related investments, and total green bonds investments.

**Table 3**  
**Fossil Fuel-Related Investment, AUM, and Green Bonds for Top 16 Life Companies in 2019**

Insurance Group	Ranking	Assets Under Management	Total Fossil Fuel-Related Investments Including Coal	% of Fossil Fuel-Related Assets to Assets Under Management	Green Bonds	Green Bond % of AUM
TIAA	1	\$283 B	\$27.7 B	10%	\$0.38 B	0.14%
New York Life	2	\$253 B	\$26.2 B	10%	\$1.17 B	0.46%
Metropolitan	3	\$200 B	\$17.4 B	9%	\$0.11 B	0.05%
Northwestern Mutual	4	\$199 B	\$25.8 B	13%	\$0.42 B	0.21%
American International	5	\$178 B	\$23.0 B	13%	\$0.34 B	0.19%
Prudential	6	\$164 B	\$14.1 B	9%	\$0.09 B	0.06%
Mass Mutual	7	\$153 B	\$10.2 B	7%	\$0.17 B	0.11%
Lincoln National	8	\$112 B	\$18.9 B	17%	\$0.07 B	0.06%
Allianz	9	\$110 B	\$14.8 B	13%	\$0.26 B	0.24%
Apollo Global Management	10	\$92 B	\$9.2 B	10%	\$0.05 B	0.05%
Sammons	11	\$88 B	\$2.3 B	3%	\$2.31 B	2.63%
John Hancock	12	\$72 B	\$16.5 B	23%	\$0.18 B	0.25%
Pacific Life	13	\$68 B	\$11.7 B	17%	\$0.15 B	0.21%
State Farm	14	\$67 B	\$10.5 B	16%	\$0.16 B	0.24%
Nationwide	15	\$66 B	\$8.4 B	13%	\$0.28 B	0.42%
Principal Financial	16	\$66 B	\$6.8 B	10%	\$0.09 B	0.14%

This chart displays data for the top 16 largest life insurers. Data include total assets under management, total fossil fuel-related investments, and total green bonds investments.

**Table 4**  
**Fossil Fuel-Related Investment Types and Amounts for Top 16 P&C Companies**

Insurance Group	Tar Sands	Other Fossil Fuel Investment	Oil/Gas Investment	Corporate Utilities Investment	Non-corp Utilities Investment	Coal Investment
Berkshire Hathaway	\$140 M	\$29 M	\$19,264 M	\$52 M	\$4 M	\$540 M
State Farm	\$8,392 M	\$572 M	\$12,122 M	\$5,309 M	\$1,490 M	\$1,447 M
Liberty Mutual	\$81 M	\$600 M	\$693 M	\$915 M	\$137 M	\$9 M
Travelers	\$263 M	\$885 M	\$1,209 M	\$2,467 M	\$240 M	\$12 M
USAA	\$90 M	\$671 M	\$856 M	\$869 M	\$59 M	\$0 M
Chubb	\$50 M	\$769 M	\$834 M	\$1,031 M	\$380 M	\$47 M
Allstate	\$89 M	\$533 M	\$1,045 M	\$1,577 M	\$166 M	\$103 M
CNA	\$236 M	\$1,057 M	\$1,858 M	\$1,451 M	\$264 M	\$134 M
Hartford	\$63 M	\$288 M	\$588 M	\$866 M	\$140 M	\$3 M
American International	\$22 M	\$308 M	\$184 M	\$568 M	\$153 M	\$27 M
Nationwide	\$49 M	\$306 M	\$400 M	\$865 M	\$62 M	\$1 M
Farmers	\$56 M	\$165 M	\$441 M	\$330 M	\$87 M	\$27 M
Progressive	\$147 M	\$110 M	\$665 M	\$267 M	\$0 M	\$114 M
Zurich	\$88 M	\$192 M	\$275 M	\$327 M	\$113 M	\$8 M
FM Global	\$472 M	\$97 M	\$920 M	\$177 M	\$73 M	\$214 M
WR Berkley	\$47 M	\$182 M	\$237 M	\$348 M	\$116 M	\$0 M
<b>Average</b>	<b>\$643 M</b>	<b>\$423 M</b>	<b>\$2,599 M</b>	<b>\$1,089 M</b>	<b>\$218 M</b>	<b>\$168 M</b>
<b>Group Total</b>	<b>\$10.3 B</b>	<b>\$6.77 B</b>	<b>\$41.6 B</b>	<b>\$17.4 B</b>	<b>\$3.48 B</b>	<b>\$2.69 B</b>

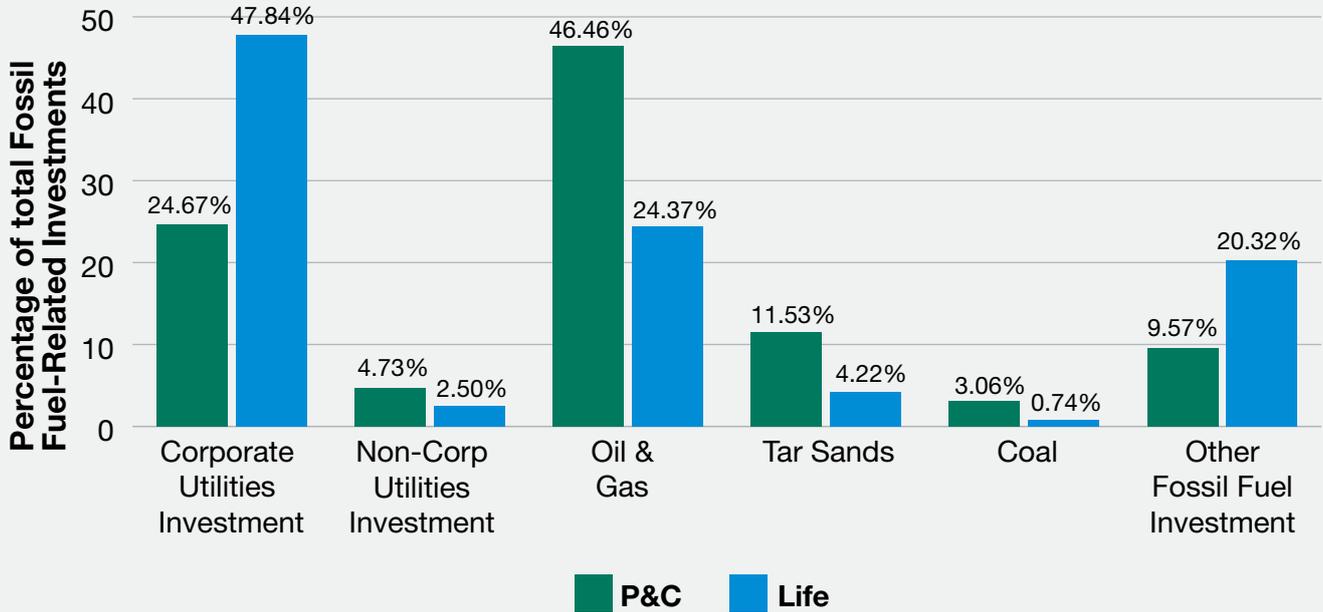
Types and magnitude of fossil fuel-related investment vary among the top 16 companies for both the life and property & casualty sectors. The above chart displays the amounts of investment by P&C companies in tar sands, other fossil fuels, oil and gas, utilities, and coal.

**Table 5**  
**Fossil Fuel-Related Investment Types and Amounts for Top 16 Life Companies**

Insurance Group	Tar Sands	Other Fossil Fuel Investment	Oil/Gas Investment	Corporate Utilities Investment	Non-corp Utilities Investment	Coal Investment
TIAA	\$657 M	\$5,396 M	\$4,352 M	\$18,155 M	\$183 M	\$31 M
New York Life	\$554 M	\$5,354 M	\$5,101 M	\$14,342 M	\$1,531 M	\$20 M
Metropolitan	\$477 M	\$3,862 M	\$3,439 M	\$9,136 M	\$1,096 M	\$170 M
Northwestern Mutual	\$1,010 M	\$5,952 M	\$6,444 M	\$13,382 M	\$88 M	\$164 M
American International	\$1,183 M	\$5,595 M	\$5,727 M	\$11,352 M	\$326 M	\$228 M
Prudential	\$654 M	\$2,563 M	\$3,598 M	\$7,757 M	\$270 M	\$128 M
Mass Mutual	\$179 M	\$2,259 M	\$2,071 M	\$5,978 M	\$58 M	\$85 M
Lincoln National	\$979 M	\$4,391 M	\$5,913 M	\$11,155 M	\$632 M	\$247 M
Allianz	\$789 M	\$3,744 M	\$3,508 M	\$6,783 M	\$777 M	\$131 M
Apollo Global Management	\$314 M	\$2,008 M	\$2,675 M	\$4,432 M	\$70 M	\$123 M
Sammons	\$166 M	\$523 M	\$902 M	\$414 M	\$397 M	\$48 M
John Hancock	\$763 M	\$3,452 M	\$3,304 M	\$9,459 M	\$292 M	\$44 M
Pacific Life	\$405 M	\$2,848 M	\$2,523 M	\$6,251 M	\$128 M	\$126 M
State Farm	\$1,473 M	\$1,811 M	\$2,836 M	\$5,392 M	\$377 M	\$132 M
Nationwide	\$508 M	\$1,450 M	\$2,577 M	\$4,275 M	\$244 M	\$6 M
Principal Financial	\$416 M	\$1,784 M	\$1,735 M	\$3,112 M	\$163 M	\$76 M
<b>Average</b>	<b>\$658 M</b>	<b>\$3,312 M</b>	<b>\$3,544 M</b>	<b>\$8,211 M</b>	<b>\$414 M</b>	<b>\$110 M</b>
<b>Group Total</b>	<b>\$10.5 B</b>	<b>\$53.0 B</b>	<b>\$56.7 B</b>	<b>\$131.4 B</b>	<b>\$6.63 B</b>	<b>\$1.76 B</b>

Types and magnitude of fossil fuel-related investment vary among the top 16 companies for both the life and property & casualty sectors. The above chart displays the amounts of investment by life companies in tar sands, other fossil fuels, oil and gas, utilities, and coal.

**Figure 5**  
**Fossil Fuel-Related Investment Type as a Percentage of Total Fossil Fuel-Related Investment, by Sector**



This chart displays the patterns in fossil fuel-related investment by business line. The amount of investment in different types of fossil fuel-related assets compared to total fossil fuel-related investment on a sector basis is shown, which allows for discernment of investing patterns of both sectors.



# 6 ■ Insurers with Distinct Investing Approaches

Insurers develop investment strategies with the goal of maintaining sufficient funds to cover claims. As a result, investment approaches may differ due to specializations within insurers that have specific timelines or risk profiles.\* Regulatory requirements add additional layers of complexity to the investing approach of each insurer. This report’s analysis found that the investment patterns of certain insurers did not fit well into the overall trends observed within the CDI dataset, which appears to reflect the unique asset holdings and/or individualized investment approaches utilized by those firms. Insurers’ asset distributions could depart significantly from the norm, such as disproportionate investments in a certain type of fossil fuel-related asset, or a total size of a fossil fuel-related investment that differs greatly from its peers. The inclusion of companies with particularly unique holdings within the analysis influences larger quantitative trends observed in the dataset.

Importantly, investment policies that focus only on one type of fossil fuel, or only on one type of investment, may result in asset portfolios that are still able to include large fossil fuel holdings. Comparative analyses conducted for this report reveal that certain firms can have, for example, significantly larger or smaller stakes in specific types of assets than the industry average. This may suggest underlying differences in individual insurers’ policy related to fossil fuel investment approaches or may simply reflect normal levels of variation in holdings between firms. A closer look at the CDI data revealed several notable examples:

- Berkshire Hathaway owned approximately 12 percent of all oil & gas assets held by insurance companies in 2019, amounting to \$20.6 billion. However, the company owned less than one percent of all other insurance-held fossil fuel-related investment types except for coal (7.84 percent). Despite its overall large oil & gas stake, only 3.06 percent of Berkshire Hathaway’s assets under management were made up of fossil fuel-related investments in 2019, a reflection primarily of the company’s size.
- State Farm had by far the largest absolute ownership in both tar sands and coal investments in 2019, at respective amounts of 30.28 percent and 22.92 percent of total insurance company investment in the respective fossil fuel categories.\*\* The next largest stake in tar sands was American International Group (AIG) with 3.70 percent, while the next largest stake in coal was Berkshire Hathaway at 7.84 percent as previously noted.
- The TIAA insurance group owned 7.26 percent of total corporate utilities investment in 2019, totaling \$18.15 billion. The next largest stake in corporate utilities was New York Life with 5.74 percent of total corporate utilities investment. Throughout the dataset, the distribution of corporate utilities assets represents a much more even distribution in fossil fuel-related investment stakes than in comparison to tar sands and coal.

\* For further discussion of specific investing approaches common within insurance sectors, see section six of this report.

\*\* This figure, which refers to 2019 data, may be seen to have added resonance in light of State Farm’s 2023 decision, noted within this report, to pull back from new business in California.

- John Hancock was not unique for its differences in patterns of investment in different fossil fuel types in 2019, but rather for the amount the company had invested in fossil fuel-related assets overall. Further, 23 percent of John Hancock’s AUM was made up of fossil fuel-related investments, significantly higher than the average life insurer. In comparison, in 2019 the average life insurer had only 11 percent of its AUM in fossil fuel-related assets.

Some of the above examples may reflect individual insurers’ investment teams’ evaluations of assets based on specific parameters and valuations, targeted investment horizons, and expectations of returns, rather

than on the presence or absence of fossil fuel-related activity within that asset. Most insurers in the United States do not currently have a publicly disclosed investment policy specifically related to fossil fuel-related asset ownership. Companies may develop policies that give the impression of having broad fossil fuel-related investment policies.

Although the examples above are selected from among the subset of the largest insurers in the dataset, similar variations in approach can also be found across different sectors and sizes of AUM. This demonstrates that any type of insurance firm may develop an individualistic approach to investing to align with its financial objectives and risk tolerance.

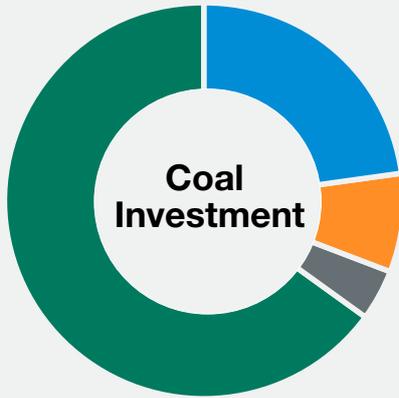
**Table 6**  
**Departures from Typical Investment Patterns (2019 Data)**

Company	FF Investment Type	% of Total FF Investment Type	Value (in billions \$ USD)	AUM (in billions \$ USD)	Additional Information
Berkshire Hathaway	Oil & Gas	12.47%	\$20.6	\$632.2	Berkshire Hathaway had <1% of total stake in all other fossil fuel-related investments with the exception of coal (7.84%)
State Farm	Tar Sands	30.28%	\$9.9	\$235.7	The next largest stake in tar sands was American International with 3.70% of total fossil fuel-related investment
State Farm	Coal	22.92%	\$1.6	\$235.7	The next largest stake in coal was Berkshire Hathaway, then American International (3.69%)
TIAA	Corporate Utilities	7.26%	\$18.1	\$283.5	The next largest stake in Corporate Utilities was New York Life with 5.74% of total fossil fuel-related investments

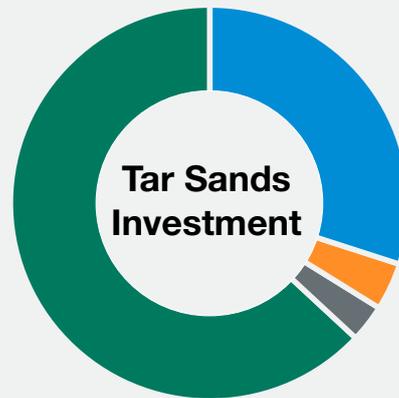
Investment decisions made by individual insurers can greatly impact overall patterns observed in this report’s analysis. Berkshire Hathaway, State Farm, TIAA, and other insurers have investments that differ from those of peers. For example, in 2019 Berkshire Hathaway had a larger stake in oil & gas assets than other insurers in the dataset, while State Farm had a large stake in tar sands and coal, and TIAA had a large stake in corporate utilities.

### Figure 6 Largest Stakes in Coal and Tar Sands in 2019

State Farm’s magnitude of investment in coal and tar sands is atypical of other insurance companies.



- State Farm: **23%**
- Berkshire Hathaway: **8%**
- American International: **4%**
- Other companies: **65%**  
(304 insurance groups total)



- State Farm: **30%**
- American International: **4%**
- Northwestern Mutual: **3%**
- Other companies: **63%**  
(304 insurance groups total)

Investment decisions made by individual insurers can greatly impact overall patterns observed in this report’s analysis. Berkshire Hathaway, State Farm, TIAA, and other insurers have investments that differ from those of peers. For example, in 2019 Berkshire Hathaway had a larger stake in oil & gas assets than other insurers in the dataset, while State Farm had a large stake in tar sands and coal, and TIAA had a large stake in corporate utilities.

# 7 ■ Insurer Business Line Findings



Different types of insurers have significantly different liability profiles as well as differences in the predictability of claims and the length of time a policy is likely to be held. As a result, the investment goals of P&C and life insurance companies, as well as the regulatory tools and goals of investment regulation, diverge to reflect the differences in liability profiles.

The most pronounced difference evident in the CDI dataset is that P&C insurance companies held far more fossil fuel-related investments than life insurance companies in 2019, which is a reflection of the fact that the P&C sector also had greater assets under management.

In terms of their respective fossil fuel-related investments, life insurance companies favored corporate utilities and “other fossil fuel investments” in their portfolio, whereas the P&C sector favored oil & gas and tar sands. The analysis considered whether the level and type of fossil fuel-related investment was correlated to the risk tolerance of each insurer’s portfolio and its service offerings. For example, the analysis considered whether stability in fossil fuel-related investment types could account for the observed patterns. Oil & gas assets may be more volatile, whereas corporate utilities may have consistent returns and payouts. Life companies favor corporate utilities and “other fossil fuel-related investments” far more than P&C companies. This is potentially due to the way the consistent returns and payouts of corporate utility investments correspond with life companies’ liability profile. The volatile nature of oil and gas investments may correspond to the greater variability of P&C claims. Insurance companies likely choose to invest, or not invest, in specific fossil fuel-related assets because those assets align with their preferred risk tolerance and other investing priorities.

For life insurance companies, the top 16 by AUM owned 55 percent of total fossil fuel-related assets owned by all life insurance companies represented in the 2019 CDI data. There were no major discrepancies between the investment patterns of the top 16 and all companies in that sector. The top 16 companies invested in oil & gas and coal slightly less (~5 percent less) than their peers.

The top 16 P&C companies also favored coal and tar sands more in their portfolios compared to the rest of the P&C companies included in the 2019 dataset. The top 16 P&C firms held 39 percent of the total stake in coal and 32 percent of the total stake in tar sands, compared to the overall sector holding 50 percent of coal and 40 percent of tar sands. However, this observation comes with two caveats. First, coal investment overall was low within the entire dataset, so even this elevated stake remained very low when viewed within context of overall assets. Second, the observed level of investment in tar sands (12 percent higher for the top 16 P&C firms than the overall average of the entire P&C sector) may be largely the result of one specific insurer, State Farm, which has a large stake in tar sands. When State Farm is removed from the P&C data, and the 17<sup>th</sup> largest firm is added in its place, that set of 16 P&C companies were responsible for 46 percent of the total stake in tar sands.

The largest P&C companies have a larger part of the total asset ownership of their sector than the largest life companies do for their sector, because asset ownership among life insurance companies is not as top heavy as asset ownership among P&C companies. The top 16 life insurance companies owned 58 percent of the total AUM for all life insurance companies, while the top 16 P&C companies owned 76 percent of total assets under

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management for all P&C companies. The outsized asset holdings of Berkshire Hathaway might be suspected as being responsible for this unbalanced distribution for P&C sector. However, when that company is removed from the top 16 and the 17<sup>th</sup> largest is included in its place, that set of 16 companies owns 66 percent of total assets under management in the P&C sector. Thus, despite the size of its assets, When State Farm and Berkshire Hathaway are both removed from P&C data, that set of 16 P&C companies held 57 percent of total fossil fuel-related assets. Berkshire Hathaway is still not large enough to be entirely

As noted in the previous section, some companies had unique asset mixes or investing approaches that have the potential to heavily influence the analysis. Among these was Berkshire Hathaway which had a far larger total AUM than the rest of the top 16. The top 16 P&C firms held 13 percent of total fossil fuel-related assets, compared to the overall P&C sector holding 18 percent of fossil fuel-related assets. If Berkshire Hathaway is removed from the dataset, and the 17<sup>th</sup> largest is added in its place, the top 16 P&C companies owned 68 percent of total fossil fuel-related assets owned by P&C insurance companies



# 8. Stakeholder Voices and the Global Insurance Sector

The pressure insurance companies feel related to their current fossil fuel-related assets and to engage with fossil fuel-related companies in their portfolios can be attributed in part to the strong messaging on these topics from leading investors and stakeholders. High external expectations from investors and stakeholders can be an important element in developing a process for investing and underwriting fossil fuels.<sup>53</sup> The development of frameworks, ratings, and alliances have the potential to create change by prompting, guiding, and communicating with the insurance sector.

## Leading Organizations and Initiatives Providing Insurance Sector Sustainable Finance Guidance

Since 2012, the United Nations Environment Programme Finance Initiative's (UNEP FI) Principles for Sustainable Insurance (PSI) have laid a groundwork for the sector regarding parameters of responsible action on climate and other environmental, social, and governance (ESG) risks and opportunities.<sup>54</sup> The PSI serves as a global framework for the insurance industry to address the full range of ESG risks and opportunities, including climate, by improving the management of such risks and opportunities to provide quality and reliable risk protection. Principle One of the UN PSI asks signatories to embed an understanding of material ESG issues into both underwriting and investment decision-making. At the time of this report, only four United States-domiciled insurance companies had become signatories to the PSI, out of 140 signatories in total.<sup>55</sup>

The Glasgow Financial Alliance for Net Zero (GFANZ), founded in April 2021, offers the global insurance sector guidance to put Principle One into action.<sup>56</sup> GFANZ focuses on developing and disseminating expertise on successful approaches for financial sector net zero action and houses sector-specific alliances that generate momentum for climate action within different parts of the financial sector.<sup>57</sup>

**“We try to be fully consistent whatever we do on the energy sector—and that is company policy—so it carries through to underwriting. Companies need to hear consistent messaging so that they know we take it seriously. Underwriting is much more complex. Investors are just investing, but on the insurance side, you might insure small parts of a single project, [and] global companies have so many different projects in different regions. So, it is harder to say where the boundaries are of what we should do or not. And on the insurance side, you can lose business with each decision [to refuse underwriting].”**

ESG Investment Lead, EU-headquartered Insurance Group

GFANZ sector alliances particularly relevant for the global insurance industry include the Net-Zero Asset Owner Alliance (NZAOA), Paris Aligned Asset Owners (PAAO), and the Net-Zero Insurance Alliance (NZIA).<sup>58,59,60</sup> NZAOA signatories are institutional asset owners that intend to transition their investment portfolios to net zero emissions by 2050. Asset owners, as a category of institutional investors, include a range of firms including insurance company general accounts, pension funds, sovereign wealth funds, endowments, and others.<sup>61</sup> Due to the variability in goals and approaches among different types of institutional asset owners, the depth of commitment, progress, and approach to meeting net zero goals all vary significantly, and developing a unified approach to net zero asset ownership through the NZAOA has proved challenging. The group has agreed upon intermediate targets for portfolio emissions reductions for 2025 and 2030, along with “engagement targets” which consist of shareholder engagement with firms, and “climate solution investment targets” to channel investment towards solutions. PAAO is a collaborative investor-led global forum, heavily dominated by pension funds and endowments, which has a similar approach as the NZAOA. The NZIA is an insurance-focused alliance that is currently going through significant changes. In parallel with the PCAF guidance for the insurance sector, NZIA targets focus on commercial lines and personal auto insurance and do not cover health, life, treaty reinsurance, or most other categories of insurance.<sup>62</sup>

**“Workers at a coal mine deserve workers compensation insurance coverage. And so, for an alliance to say, ‘we are going to stop coal by stopping insuring it’ — that would be a harsh reality for those workers.”**

Senior Re/Insurance Policy Expert

The Investor Agenda provides structured guidance and best practices for institutional investors to decarbonize their investment portfolios in support of the achievement of a Net Zero economy by 2050 or earlier. The guidance provides institutional investors with clear expectations for the design and implementation of comprehensive climate action plans.<sup>63</sup> The Investor Agenda is a coalition of groups focused on investors and climate change, including one of the three contributing organizations to the current research report, Ceres. Additional partners and supporters of the Investor Agenda include CDP and the U.N. Principles for Responsible Investment, among others.<sup>64</sup>

As financed emissions accounting has become more standardized, industry collaborations and nongovernmental efforts have provided guidance on decarbonization efforts for companies within the global financial sector, including for the insurance industry. The recent GFANZ guidance on decarbonization expectations in the insurance sector has been the most prominent, but it has been complemented by the work of the Investor Agenda and other similar collaborations around the world.<sup>65</sup>

## ESG Ratings Bring New Scrutiny of Insurance Sector Scope 3 Emissions

Stakeholders are beginning to pressure insurance companies on their fossil fuel sector financed emissions. One harbinger of this was the decision by S&P Global in 2022 to add four new insurance industry assessment questions to its influential Corporate Sustainability Assessment (CSA).<sup>66</sup> The CSA, which was known as the Dow Jones Sustainability Index (DJSI) until its acquisition by S&P Global, is one of the most well-respected and widely-used ESG ratings today, with both corporations and institutional investors ranking in it the top five for both quality and usefulness in the most recent Rate the Raters surveys conducted by the SustainAbility Institute by ERM.<sup>67</sup>

The CSA survey's questions on this topic, which are included in the industry sector questionnaire for all financial sector companies engaging with this rating, (see text box) aim to assess a rated firm's exposure to fossil fuels and focus on underwriting and investment in coal and in unconventional oil & gas.\* The focus of the questions is on both the presence of investment policies related to these topics, and on the current performance of the rated company on investing and underwriting in these areas. Based on the Science-Based Targets Initiative's (SBTi) Guidance for the Financial Sector, the

addition of these questions to the CSA signals a new level of stakeholder expectations for climate consciousness in the underwriting and investing arms of insurance companies. While some European insurance firms rated highly in the assessment, U.S.-based companies have not fared as well.<sup>68</sup> Already in 2023, several major American insurers have disclosed new decarbonization policies for investments, which should help them meet the expectations of the CSA and other ESG ratings.<sup>69,70</sup>

## ESG Rating Example

The S&P Global Corporate Sustainability Assessment Questionnaire's Decarbonization Strategy Criterion includes the following four questions for all respondents in the insurance and financial services sectors.

- 2.3.4 Coal Investment Policy: Does your company currently invest in thermal coal [Coal Mining; Coal Power; Coal Infrastructure]? If so, does your company have a publicly available policy in place to restrict and/or exclude coal investments?
- 2.3.5 Coal Re/Insurance Underwriting Policy: Does your company currently underwrite thermal coal? If so, does your company have a publicly available policy in place to restrict and/or exclude coal re/insurance underwriting?
- 2.3.6 Unconventional Oil & Gas Investment Policy: Does your company currently invest in the below mentioned unconventional oil & gas fuels [Tar Sands; Shale Oil & Gas; Arctic Oil & Gas; Liquefied Natural Gas (LNG); Ultra-Deep-Water (UDW) Oil & Gas]? If so, does your company have a publicly available policy in place to restrict and/or exclude unconventional oil & gas investment?
- 2.3.7 Unconventional Oil & Gas Re/Insurance Underwriting Policy: Does your company currently underwrite the below mentioned unconventional oil & gas fuels [Tar Sands; Shale Oil & Gas; Arctic Oil & Gas; Liquefied Natural Gas (LNG); Ultra-Deep-Water (UDW) Oil & Gas]? If so, does your company have a publicly available policy in place to restrict and/or exclude unconventional oil & gas re/insurance underwriting?

Note: Quoted sections of the CSA questionnaire have been shortened for readability.<sup>71</sup>

\* "Unconventional Oil & Gas" is a term used in the S&P Global Corporate Sustainability Assessment as an umbrella category encompassing projects and production related to tar sands, shale oil & gas, liquefied natural gas, and oil & gas originating in Arctic or ultra-deep-water locations.

# 9. The Role of Bonds in Insurance Investment Portfolios

Insurers hold assets to back their policies and need to be ready to provide payouts against claims whenever necessary. The success of the modern insurance industry is predicated on insurers' ability to accurately predict the likelihood of needing liquidity for payout of claims at any given time. The actuarial calculations that underpin insurers' decisions about setting rates for premiums, risks, and claims are intertwined with their investment teams' time horizons and other decision-making. This is reflected in insurance regulators' supporting and structuring of this dynamic, overseeing a complex set of risk-based capital and risk assessment rules unique to the business of insurance.

**“Insurance is a business of risk, not a business of money. Insurers know the regulatory ins and outs of the states where they work and may have their own individualized investment approaches that have been working perfectly well for them for years or even decades.”**

Senior Expert in Global Insurance Sector  
Regulatory Affairs

Insurance companies invest with the goal of ensuring funds are available to back future policy claims. This differs from the goals of many other institutional investors such as asset managers tasked with responsibility to maximize clients' shorter-term investment returns. Because of their unique goals, insurance general accounts are often significantly more heavily weighted towards bonds and cash than towards equities or other asset classes.<sup>72</sup>

Because insurers often maintain a sizable portion of their assets in bonds, insurers' investment policies regarding bonds may be more impactful than those of other types of institutional investors. Insurers' policies and approaches to green bonds and other sustainability bonds may thus have an outsized effect on these assets.

Compared to other asset owners and asset managers, insurance companies are so heavily weighted towards bonds because their long-horizon structure helps duration match long-lived assets with similarly long-lived liabilities. Regulators in many jurisdictions reinforce this by requiring duration matching of insurers' assets and liabilities, which leads insurers to maintain a certain level of investments in bonds. This safeguards consumers by confirming that the licensed insurers have sufficient funding available to pay out claims on policies.<sup>73</sup>

Investment strategies vary between insurance firm business line types. Life and health insurers, with their focus on the biological realities of human life, tend to deal in liabilities with predictable terms. P&C insurers have less predictable liabilities and may have quite large positions in a range of asset classes. Patterns in investment also significantly differ from country to country but this research focuses exclusively on United States insurers.<sup>74,75</sup> It is important to understand what underpins these different investment approaches:

- **Life insurers** can predict overall patterns in inflows and outflows of funds long in advance based on the inevitable likelihood of the progression of retirement, aging, and death of policyholders. In addition, life insurance policies are held for decades,

rather than the shorter policy terms typical of health or P&C. As a result, life insurers are often focused on long-term fixed income instruments such as corporate bonds and treasuries, as well as commercial real-estate mortgages. Investment teams at life insurers are often prohibited from holding large amounts of equities due to equity markets' inherent risk and volatility. Given the relatively small universe of long-duration, high credit quality, high volume bond issuers, life insurers' choices to invest in certain sectors can be partially attributed to their need to invest in such issuers to meet their investing goals.

- **Health insurers** have short-term liability and high needs for liquidity. As population-level aggregate costs of health care can be estimated based on available data on medical costs, liquidity needs can be predicted with high accuracy based on the demographic and epidemiological data of policyholders. Health insurers are weighted significantly towards bonds but also regularly hold a sizeable portion of their portfolios in cash. Health insurers were not included in the quantitative analysis of the CDI dataset that is covered elsewhere in this report, for reasons discussed in the Methodological Appendix. However, because they represent an important and highly visible sector of the insurance industry, general commentary on the investment approaches of health insurers is included in this section.

- **Property & casualty insurers** are less able than life and health insurers to predict short-term liability, as their policies are likely to cover less predictable events and claims will have greater variability in costs. Because of this, P&C insurers pool risk and employ reinsurance strategies to ensure funds are available for claims even in times of volatility, and they are likely to maintain at least 10 percent of funds in cash. P&C are the insurers most likely to be more diversified into equities to provide for growth, but still maintain longer investment horizons than other types of institutional investors.

Given the insurance sector's investment focus on bonds, it follows that investment teams' approaches to evaluating bonds, and insurers' development and disclosure of investing policies regarding selection and evaluation of the climate-related impacts of specific bonds, could have a substantial impact on the overall bond market. Further, climate-related reductions in liquidity via the impacts of fossil fuel issuers' stranded assets could reduce the quality of the portfolio overall. Green bonds, and other sustainability bond types, could be an important element of investment approaches for insurers who are dedicated to maintaining investment approaches that ensure the long-term viability of their companies and reliability of their policies, while also moving towards an investment approach that encourages sustainable practices.

# 10. The Growing Role of Green Bonds



Green bonds appeal to a range of investors, including insurers. Although the term “green bond” is loosely-defined, green bonds generally function like standard corporate, municipal, or government bonds, but with funds earmarked for environmental- or sustainability-focused projects.<sup>76</sup> The cumulative issuance of green bonds passed U.S. \$1 trillion in 2020, according to Climate Bonds Initiative estimates, and the longest duration green bond issued to date is Singapore’s 50-year green bond, issued August 2022.<sup>77,78</sup>

Although green bonds and other sustainability bonds were conceived and structured to be parallel to standard bonds, they have in practice diverged in ways that are significant for investors and issuers. As demand has grown, issuers have found that their green bonds can become oversubscribed, and the secondary market for green bonds has become highly liquid.<sup>79,80,81</sup> In addition, green bonds must include sustainability-focused verification, auditing, and intermediary monitoring to ensure continued compliance with investors’ expectations of green credentials for the project. To help with this, the Green Bond Principles are a voluntary standard established in 2014 to ensure transparency and quality, and to establish reporting and management guidelines.<sup>82</sup> Regulatory oversight of green bond labeling is still in the early stages, with February 2023’s European Union Green Bonds Standard (EUGBS) the first of its kind globally.<sup>83</sup> For bonds not covered by the EUGBS, potential investors must undertake significant research to ensure green bonds meet ESG performance expectations.

**“A topline concern [for insurers] about anything “green” related is who is making that label? Who is standing behind it? Who is protecting the company if they are making an investment in that label, and if the investment goes south, what is the impact? I think you will continue to see some skepticism in the market for green bonds.”**

Senior Re/Insurance Policy Expert

As noted, insurers are heavily reliant on bonds as a major component in their overall asset mix due to the unique liability and liquidity profiles that insurers must consider in planning investment needs. For investors with mandates to ensure the sustainability alignment of entire portfolios, sustainability-related bond labeling is important.

For insurers that are members of, or aligned with, the targets developed by the Net Zero Asset Owners (NZAO), green bonds can be a way to ensure investment portfolios are activated towards the NZAO “climate solution investment targets” which aim to channel investment towards solutions to climate change. Investments that establish or encourage renewable energy projects and other climate solutions can be an important element of a sustainable, climate-focused investment approach for any institutional investor, including the insurance sector.

**Changing Climate for the Insurance Sector:**  
Research and Insights

A recent survey of the insurance sector demonstrated that 34 percent of North American insurers planned to increase their company’s allocation of green and sustainable bonds in the next 12-24 months, while 51 percent of respondents intend to maintain their current allocation.<sup>84</sup> The percentage indicating a plan to increase allocation was higher than for any other category of fixed income investment. The trend towards green bonds was even more pronounced on the global level, with 43 percent of respondents indicating they intended to increase allocation. For insurers committed to climate action, green bonds provide a straightforward and reliable method of ensuring that investments are aligned with policies and expectations.

**“We publish our impact investing goals and progress towards those goals. We targeted \$100 mm of green/social/sustainable bonds in year 2021 and were able to exceed our target.”**

Investment Lead at a U.S. Insurance Firm



# 11. Final Takeaways: Insurers in a Changing World

Investing priorities that take climate risks into account have become widespread among institutional investors over the past decade. Starting from the premise that climate risk is investment risk, leaders in this space have developed frameworks for measuring financed emissions and for addressing emissions-intensive assets. Insurers have refined practices regarding assessment of financed emissions, climate-focused portfolio alignment, and investor engagement regarding fossil fuel-related corporate transition plans.<sup>85,86</sup> Efforts to incorporate climate priorities have been undertaken by asset management giants, endowments, and public pension funds, often in response to pressure from each asset owner's specific array of clients and other stakeholders.<sup>87,88,89</sup> Investors have refined approaches, plans, and policies for engagement with fossil fuel and other energy intensive industries, often accompanied by public communications detailing their approaches, sharing best practices, and providing sector wide recommendations. Compared to other institutional investing sectors, the insurance industry has been slower than some industries in developing climate-related policies and practices addressing fossil fuel-related assets. Relative to global peers, United States-based insurers have lagged in acknowledging and acting on the financial and climate risks posed by fossil fuel holdings in their general account assets.

As this report has shown, U.S. insurance companies have significant connections to fossil fuel companies through investments and underwriting. Insurers' responsibilities and roles regarding management and communication of climate risk are well understood. While public understanding and attention to

Scope 3 emissions in the financial sector have increased during the past five years, the U.S. insurance sector has not faced the same kind of scrutiny from climate activists as other asset managers.<sup>90</sup> Given the consumer-facing business model of most insurers, and recent headlines about insurers' pull back from certain high-climate-risk states like California, greater public focus on insurers' climate-related policies may be on the horizon. By developing and disclosing investment policies about fossil fuel-related assets, including policies shaping climate-focused shareholder engagement, insurers could reduce criticism and contribute more to the global shift to a low carbon future.

This report's quantitative analysis of insurers' fossil fuel-related asset ownership as well as focus groups and interviews with insurance sector investment teams, regulators, and experts illustrate that the U.S. insurance sector is closely connected to fossil fuel industries. The research also shows that U.S. insurers have embraced green bonds, although those bonds are proportionally small in size compared to total industry assets.

These observations highlight several current realities for U.S. insurers, and for the insurance sector worldwide. These are enumerated below:

## 1: The Alliance Approach

Fossil fuel-related investment policies and approaches for all classes of investors have been honed with input from a range of alliances, coalitions, civil society organizations, and nongovernmental organizations. Much of the groundwork for climate-related investing policies and approaches in the insurance industry has been laid through the work of

such entities. At the same time, insurers take individualized approaches to investment in fossil fuel-related assets to align with their portfolio needs. Insurers have emphasized a desire and legal obligations to maintain independence in decision making on fossil fuel-related investment and underwriting matters.<sup>91</sup>

Alignment with a 1.5°C net-zero transition pathway sends important signals to customers, shareholders, ESG raters, and others, but the variability of the U.S. insurance sector's investing approaches and underwriting commitments may mean each firm must develop its own climate-related investing approach. Quantification of risk is the primary activity of the insurance industry, and underwriting consists of valuing agreements to transfer responsibility for risk. Insurance underwriters have developed approaches to assess risks related to fossil fuel projects, including climate-related physical, regulatory, and transition risks.<sup>92</sup> U.S. insurers are free to individually decline to cover a project due to concerns about the project's safety or viability, and to pose questions about the financial stability of the company.<sup>93</sup>

The United Nations Environment Programme has reconfirmed the importance of both firm-level and industry-level commitments in the face of questions regarding potential legal hurdles in the EU and United States.<sup>94,95,96</sup> In a statement released on May 30, 2023, the UNEP, convenor of the NZIA, reaffirmed its position that "in order to successfully tackle the climate emergency, there is a fundamental and urgent need for collaboration, not just individual action... This is why UNEP will continue to strengthen and deepen its collaborative work with the insurance industry and key stakeholders to advance net-zero insurance thinking and practices globally."<sup>97</sup> Beyond the structure of formal financial sector climate alliances, U.S.-based institutional investors have faced the same political headwinds about ESG investing approaches that other asset managers are facing.<sup>98,99</sup>

Industry initiatives and sectoral alliances continue to have a viable future. A 2022 survey of insurance companies indicated that 43 percent of North American insurers, and 55 percent of insurers globally, "intend to join insurance industry initiatives like the Net Zero Asset Owner Alliance."<sup>100</sup> Insurers should look to asset owner initiatives for guidance on developing approaches to engagement with fossil fuel companies and policies related to climate risk in the investment portfolio. For example, the Investor Agenda, which includes insurance companies, offer institutional investors advice on developing structured transition plans for addressing climate risk within the institutional investment portfolios of a range of asset owner types.<sup>101</sup> The asset owner forum Paris Aligned Asset Owners focuses on asset owner approaches to alignment with the Net Zero Investment Framework.<sup>102</sup> Firms, including insurers, representing tens of trillions of assets under management have joined these groups and become active members.

## 2: Act to Encourage and Accelerate the Low-Carbon Transition

This report has uncovered several opportunities for insurance sector investment teams and underwriters to encourage and accelerate the low carbon transition.

Insurers and other institutional investors should ensure that they are aware of the true and measurable pace of transition of the corporate utility sector. As utility-scale renewables projects multiply, the utility sector has the potential opportunity to step away from fossil fuel energy sources to an ever-greater degree. Investors should engage with utility firms to be aware of the proportion of renewable energy sources in their fleets and the pace at which renewables production is increasing. It is also incumbent on investors to understand specific utility companies' progress towards, and commitment to, low carbon energy futures. As this report has noted, not all companies labeled as fossil fuel-related assets for this analysis are wholly or necessarily permanently engaged in activities related to fossil fuel.

Insurers should make active efforts to encourage companies to engage in transition away from the most damaging and high-emitting fossil fuel-related activities. Shareholder pressure on companies to reduce or eliminate exposure to coal and tar sands activities, for example, can be an important intermediate step in the overall transition to a low carbon future. Likewise, insurers and other institutional investors should encourage companies heavily engaged in oil & gas activities to initiate efforts to expand renewable energy and other non-fossil fuel business units and initiatives. The oil & gas sector, like the utilities sector, will need to plan beyond fossil fuels to truly ensure stability and performance over the long term.

The role of insurers and other institutional asset owners regarding climate risk is not entirely relegated to fossil fuel-related assets. While still small as a percent of assets, issuances of labeled green bonds and related ESG-focused bond types have risen dramatically since the bond labeling approach was established in 2007.<sup>103</sup> Unlabeled green bonds, such as those related to renewable projects, climate technologies, and low-carbon energy transition projects, offer additional pathways for investor impact.<sup>104</sup>

The insurance sector is also positioned to accelerate net zero goals by incorporating climate considerations into new insurance products and underwriting solutions. The United Nations has highlighted the potential for insurers to act on climate by underwriting

climate-safe infrastructure in developing countries.<sup>105</sup> By contributing to the financial viability of thoughtful, low-emissions infrastructure development, insurers have the potential to accelerate the move away from establishment or expansion of fossil fuel-intensive projects. Finally, climate tech and renewable energy projects may have less well-established risk profiles, but insurers that develop policies focused on those sectors can both tap into new commercial opportunities and contribute to the development of climate solutions.<sup>106</sup>

### 3: The United States Insurance Sector Is Unique in the Financial World

Insurance companies' investment goals often diverge significantly from those common among other institutional investors. Different types of insurers may also have very different investing goals from one another. Even within one insurance business line, different individual firms may have underwriting portfolios with vastly different types of liability and time horizons. All these factors influence how companies plan their general accounts investments. Further, some insurers outsource the management of general accounts to third-party services.<sup>107,108</sup>

The individualistic nature of U.S. insurance sector investment teams' goals is an important component of the industry, and U.S. investment teams are reluctant to accept anything that might look like one-size-fits-all guidance on how to invest.<sup>109</sup>

**“Coal based business models have a limited lifetime – we are moving towards global consensus. We still have coal in our assets, because we have a super long portfolio, but we try to accelerate the runoff. NGOs always look at our coal figures, but they should look at if we bought any issuance last year in coal, because of course we still have the old [bonds] in the portfolio. We started excluding coal in 2015, but some of our coal bonds run for 20 years.... So of course, we still have [those assets today].”**

ESG Investing Lead, EU-headquartered Insurance Group

Some evidence exists that the United States insurance sector has undertaken significant effort in the past two years to understand and respond to global expectations regarding financed emissions. Some United States-based firms have made policies for decarbonization of their investment portfolios public.<sup>110</sup> Several individuals interviewed for this research stated that their firms, and the sector overall, has made huge changes in the years since the California Department of Insurance datasets were gathered. However, the development of an investment policy may not be enough to effect change. Some policies are partial in scope, focusing only on coal and not establishing policy for other fossil fuel investment categories. Other policies may focus only on new investments and not establish effective engagement policies for all existing assets. The next several years will show how effective these policies are in practice, and whether the industry's actions do enough to support the low carbon energy transition.

#### 4: Investment Policies Balancing Engagement and Divestment

Asset owners have a range of policies applying to fossil fuel investment. These policies may establish parameters for investor engagement with corporations that can be an ongoing, multi-stage process. Importantly, ESG investors' engagement with fossil fuel companies often involves asking those corporations to change core business models. This contrasts with standard shareholder engagement, practiced by all investors, that focuses on disclosure or modification of corporations' existing business practices. Many asset owners have established or are in the process of establishing net zero plans that will guide them as they decarbonize their investment portfolio over time.

Asset owners' investment policies regarding fossil fuels vary significantly. Engagement should be a rigorous process in which asset owners discuss and negotiate with portfolio

companies over specific targets, such as a threshold value or percentage of revenue from fossil fuel extraction and should set specific time periods for action. In some cases, if a company does not achieve specified targets within that time span, and further engagement does not appear useful, divestment of the asset may occur.<sup>111</sup> Some institutional asset owners, such as CalSTRs (California State Teachers Retirement System) have taken a dual approach by divesting of thermal coal assets while maintaining an engagement policy regarding other fossil fuel-related assets.<sup>112,113</sup> Other institutional asset owners, such as the Princeton University Endowment, have completed a full divestment of all fossil fuel-related assets.<sup>114</sup> Insurance general funds also have adopted a range of approaches to engagement with fossil fuel-related assets.

In interviews undertaken for this report, some insurance investment team interviewees said that concerted investor engagement efforts may be a more effective way to ensure that a fossil fuel company undertakes effective transformation and contributes to the global low carbon energy transition. Because insurance companies are long-term investors focused heavily on bonds, even the most progressive firms hold assets in coal and other fossil fuels.<sup>115</sup> To counter critics, they may state that a coal bond that has been on the books for many years should not be held against the company today, since it reflects an investment decision from a different era.

Because insurers' investment approaches have different timeframes and return objectives from many other asset managers or asset owners, portfolio decarbonization guidance needs to be tailored to fit their profile. Some insurers focus on divestment as a balance to engagement with fossil fuel sector companies over investments and underwriting.<sup>116,117</sup> While not all insurers have specific policies in this area, a growing number of them have established net zero decarbonization.\*

\* Engagement efforts that do not lead to changes in the issuer's emissions profile after a set number of years may lead investors to decisions to divest from those securities.

As a complement to asset allocation decisions, shareholder/investor engagement and related forms of communications can be useful tools for asset owners working to create a more climate-friendly portfolio. Engagement can be effective, but is also time- and resource-intensive to undertake. Smaller insurers may not have the staffing to enable effective engagement approach for an entire portfolio. A 2022 academic study showed that shareholder engagement is on the rise across all asset owner and asset manager classes, and that engagement is increasingly effective as it expands to include new types of communications.<sup>118</sup> A recent industry survey indicated that 42 percent of insurance sector respondents globally intended to increase the number of issuers with which they to engage.<sup>119</sup>

Fossil fuel-related engagement on underwriting should also be expected to become a more standard part of insurers' processes as climate-driven risks become even more frequent. However, insurers may have long-term underwriting relationships with companies active in the fossil fuel sectors, including companies that are establishing new operations to extract, process, or transport fossil fuels. Some activists pressure insurance firms to divest entirely from underwriting projects for fossil fuel-related assets, in the same way that activists may pressure other asset owners and asset managers to dissociate from the fossil fuel sector.<sup>120</sup>

## 5. The Role of Regulators

In the United States, insurance is mainly regulated at the state level. As a result, state-level insurance regulators are empowered to interact regularly with insurers about a range of topics, including assets, investing, and underwriting. As part of the research process for this report, a focus group for state insurance regulators was convened. The attendees provided insight into the perspectives of regulators regarding climate risk and opportunity and on the topics covered in this report.

Because most of the regulatory power in the U.S. over investing and underwriting related to climate-related risks and overall management of insurance remains with the states, insurers operating in different states are subject to different degrees of oversight on climate-related matters. The Federal Insurance Office (FIO) of the U.S. Department of the Treasury recently assessed the current landscape of climate-related oversight of state insurance regulators and found significant variation from state to state.<sup>121</sup> The FIO's report notes that, for many states, the process of incorporating climate-related risk considerations into their oversight processes is still at a very preliminary stage. The report concludes that alignment on state regulatory oversight of insurers, on both investing and underwriting, will be necessary to ensure the stability of the financial system, including the banking and real estate sectors.<sup>122</sup>

State insurance regulators attending the regulator focus group conducted as part of this research said that they do not currently tend to consider the Scope 3 impacts of investments. They noted that regulators are not currently imposing restrictions on what an insurance company can or cannot underwrite other than enforcing anti-discriminatory regulation intended to ensure equal treatment of policyholders. Although some state regulators noted that their offices consider caps on total sector investments within general accounts, regulators overall tend to avoid caps on specific investments, including fossil fuels. Although climate advocates are interested in regulation of the insurance sector on climate-related financial risk factors, insurance regulators mostly allow companies to determine this, like other risks, on their own.

Overall, state regulator focus group participants agreed that U.S. state-level insurance regulators understand climate change to be a risk relevant to all insurers and see that risk as one likely to become more pronounced in the future. Focus group attendees predicted that climate awareness in the industry will increase over

time as the market and regulators increasingly understand climate change as a risk that needs to be managed. However, they did observe that U.S. insurers are slightly behind other industries in their activities and processes related to fossil fuel-related investments and climate policy.

United States-based insurers currently look to state-level regulators, the Federal Insurance Office, and the nonpartisan National Association of Insurance Commissioners to provide oversight and guidance on insurance-related topics.<sup>123</sup> Currently, there is no consensus on how or to what extent state insurance regulators should include climate risk or fossil fuel-related asset holdings among the topics covered during examinations and oversight. However, there is regulatory oversight to review asset holders to ensure safety and soundness of the insurers. Regulators are currently considering their potential role in ensuring that individual insurance firms operating in their states, as well as those firms' customers, have thoroughly understood and assessed climate-related financial risks regarding both underwriting and investing policies and processes.

## Concluding Overview

This research report has explored U.S. insurance companies' investments in fossil fuel-related assets in 2018 and 2019 and has assessed the degree to which insurers may have altered their investment approaches since then. This report has further analyzed the underlying structure of insurance investment approaches within different insurance business lines to create an overlay offering additional insight about patterns uncovered in the data analysis. In addition, this report has tracked the evolution of financed emissions calculation and frameworks and approaches for climate-related analysis of asset ownership. To ensure the assessment considered any changes in approach by U.S. investors from 2019-2023, the quantitative analysis was supplemented by a thorough survey of recent publications on related topics. The research team conducted

one-on-one interviews with insurance company investment team leads, state regulators, and other senior subject matter experts and leaders. In addition, the research team conducted two focus groups in which insurers and state regulators were asked to confirm our preliminary findings and add their own reflections.

The U.S. insurance industry has many opportunities to develop policy and practice that will positively contribute to a transition to a net zero world while reducing business risks. Insurers are highly individualistic in their risk tolerance, scope of underwriting, investing portfolio, and relationship with stakeholders. Because of that, it is important for firms in the sector to take the time to understand their needs and develop policies and practices that will be both workable and impactful. This is relevant for insurers' financial decisions regarding both underwriting and asset ownership, which should encompass existing fossil fuel-related assets, green bonds, and other climate-related financial risks and options.

According to National Association of Insurance Commissioners research, only 36 percent of insurers had altered their investment strategies in response to the impacts of climate change by 2021, although far higher percentage of insurers factored climate-related risks into their underwriting decisions.<sup>124</sup> The gap between responding to climate risk as it affects a company's liabilities, and how it affects its assets, deserves greater attention by insurers. While every U.S. insurance company needs to take responsibility for action on climate, each firm must determine how to implement plans supporting climate action in a manner harmonized with their unique business and investment portfolio.

# Appendix 1: Methodology and Research Approach



## The California Department of Insurance Dataset

In 2016, the State of California Department of Insurance (CDI) enacted an initiative related to climate change which, as part of its actions, required insurers with over \$100 million in annual premiums to disclose their investments in fossil fuel-related assets.<sup>125</sup> This information was first requested for asset portfolios for the year ending December 31, 2015,<sup>126</sup> and was requested again on an annual basis for insurers' portfolios annually through the year ending December 31, 2019. Basic analyses of these disclosures for 2016 and 2017 were released in 2018.<sup>127</sup> In 2020, CDI engaged S&P Global to create a fuller analysis of these disclosures, including the development of estimation methods for fossil fuel-related asset holdings that were not included in the database. These estimations made use of S&P Global's financial data, as well as the environmental and climate datasets developed by S&P Global's subsidiary, Trucost.<sup>128</sup>

The current report leverages S&P Global Market Intelligence's analysis of 2018 and 2019 data, which was published in 2022.

## Limitations of the CDI Dataset and Report Analysis

The California Department of Insurance engaged S&P Global Market Research to undertake an initial labeling of assets within the survey dataset and to provide analysis of contents.<sup>129</sup> The quantitative analysis in this Changing Climate for the Insurance Sector report is based on the labeling of assets by S&P Global, and hence includes certain limitations.

### Dataset Limitations Include:

- The labeling of assets as fossil fuel-related or non-fossil fuel-related assets builds upon S&P Global's work. In 2018 and 2019 respectively, 28 percent and 30 percent of the total value of holdings across all insurers in the dataset could be labeled directly because it was covered by S&P data at the asset level.<sup>130</sup> Based on sector estimation, S&P Global was able to supplement that data to reach a combined actual and estimated total of 83 percent coverage for 2018 and 82 percent coverage for 2019.<sup>131</sup> The remaining percentage of the value of holdings could not be estimated for the analysis because it consisted of private companies or other assets that S&P Global could not estimate. S&P Global generated additional analysis of the holdings for which it had asset-level data and extrapolated further analysis for the entire value of holdings represented in the CDI dataset.
- S&P Global highlighted several categories of fossil fuel-related assets by sector and type. These included corporate and non-corporate utilities, oil & gas, coal, tar sands, other fossil fuel, and green bonds. S&P Global noted that there was some

overlap between resource sectors that cannot be differentiated by its analysis of fossil fuel-related investment. Thus, some assets labeled as tar sands may not be mutually exclusive from other types of fossil fuel, such as oil & gas or coal.<sup>132</sup> However, due to the particularly carbon-intensive and environmentally damaging attributes of coal and tar sands within the larger category of fossil fuels, looking at these in isolation can bring additional insight to the analysis. S&P Global determines coal, tar sands, and oil & gas assets using a threshold value for revenues.

- For companies operating in the utility sector, energy generation comes from a mix of sources which can vary from year to year depending upon fossil fuel prices, consumer needs, and other considerations. For the companies for which it had company-level data about energy mix, S&P Global analyzed the breakdown of energy sources for utilities in 2018 and 2019.
- Health insurance companies are not included in the visualizations or quantitative analysis in this report, as they are not well represented in the dataset. The dataset only includes insurers that operate in California. While this is considered representative of United States insurers for the categories of P&C and life, it is not considered representative for health insurers, which are far more likely to be California-specific. As well, health insurers have far smaller assets under management than either life or P&C companies, with only a twentieth of all assets in insurance company general accounts (\$388 M of \$7.5 B total in 2021).<sup>133</sup> However, the role of health insurers as a segment of the U.S. insurance sector is covered in other components of this report.
- Although all 16 of the top insurers in the United States are represented in the CDI data, there is a small chance that some data may be missing if certain companies contained under the insurance groups are not registered in California. However, since the analysis contained in this report does not include health insurers, any missing data that may exist is unlikely to be large enough to skew conclusions.
- “Other Fossil Fuel” is a limitation of S&P TruCost sector labeling. These include fossil fuel-related companies outside of the Trucost universe that have non-fossil fuel sector labels (e.g., Financial Services) and certain other industries. Examples include construction materials, paper and forest products, automobiles, transportation infrastructure, building products. Total investment in these sectors is not captured, just the portion of it that S&P thinks is fossil fuel-related.
- The combined category of “other fossil fuel investments” cannot be broken down into component elements. This label is assigned by S&P and the category name is a limitation of that labeling.
- There are several cases where data has been split up based on sector of operation. If an insurance group contains multiple companies that operate in different sectors, such as both the life insurance and property & casualty sectors, the data was split up based on sector. In these cases, if a company offers more than one type of insurance product, only one type of product is shown.
- Companies typically fall outside of the Trucost universe if they are private and do not publicly disclose information, or do not have public debt within the S&P universe, in which case the required revenue and industry details are available.

- The dataset does not provide information about whether a specific fossil fuel-related investment is in the form of equity, debt, or other investment.
- The dataset does not include information on the date of issuance of a bond or the length of time an investment has been held by the insurer.
- Due to the age of the dataset, lack of additional years of data, and underlying market factors, meaningful chronological trends cannot be extrapolated from the two years of this dataset.
- The amount of fossil fuel-related investments relative to portfolio size does not correlate with size of portfolio. There are no major trends regarding the amount of assets owned, except for the noted outliers, which are covered later in this report.

### Confirmation of Use of 2019 California Department of Insurance Data as Representative

An initial question asked in the current research was whether 2019 data could be used as representative of both years, and whether notable differences existed between the two years of insurance companies' disclosure of investments reported in the CDI dataset. The analysis found that little difference in fossil fuel-related asset ownership between the two years of CDI data, suggesting that insurers' approaches to investment decision making had not significantly changed during the period. To compare year-on-year data, a comparison was made between total assets under management and fossil fuel-related investments. This allowed us to calculate the year-on-year change of the percentage of fossil fuel-related assets of portfolios.

Because only two years of data exist in the dataset, no conclusions about temporal changes in asset ownership trends can be made.

Since no significant differences were evident between the two years, a single year of data can be considered representative. The quantitative research into the CDI data thus focuses on the 2019 data year in instances where only a single year of data is needed, because it is the more recent of the two years available.

### Comparative Context of the California Department of Insurance Data

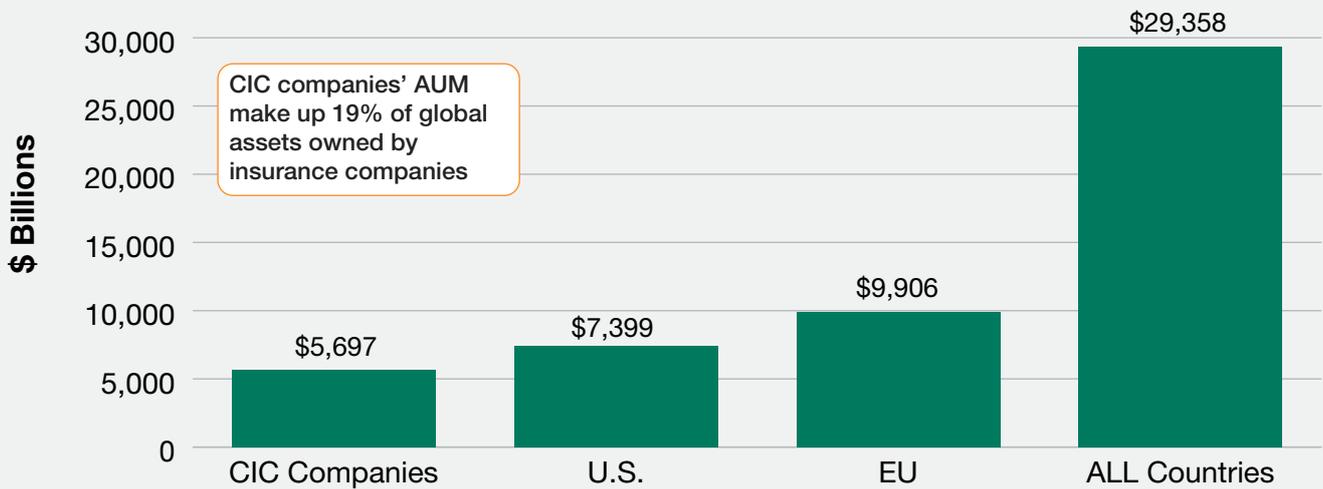
To ensure that the CDI dataset was broadly representative of U.S. insurers overall, a comparison was undertaken to evaluate the degree of overlap. In addition, an analysis was made to determine the size of the U.S. insurance sector in comparison to the European Union insurance industry and to the entire global insurance industry.

For comparison with CDI dataset's data from 2018 and 2019, publicly available Organization for Economic Cooperation and Development (OECD) data from 2019 was utilized to compare coverage of the CDI dataset to the overall global insurance industry. This comparison showed that the CDI companies' assets under management make up 19 percent of global assets owned by insurance companies, while U.S. insurance companies make up ~25 percent of global assets owned. Notably, the OECD dataset does not contain any data about fossil fuel-related assets owned by foreign insurance companies, so no comparisons can be made regarding investments in fossil fuels.

The countries with the largest insurance industries are the United States, Japan, France, the United Kingdom, Germany, and Chinese Taipei (Taiwan). Since the CDI data is representative of 77 percent of total U.S. assets owned (the remaining 23 percent of assets are held by companies do not conduct business in California and thus are not subject to regulation under the CDI), we concluded the data set is likely representative of insurance-related trends within the U.S. and probably reasonably representative of the global insurance industry. Given the proportion of U.S. and global assets represented by companies within the CDI dataset, they have the potential to influence trends regarding fossil fuel investment.

**Figure 7**  
**Assets Owned by Insurance Industry in the U.S., EU, and All Countries**

The U.S. makes up a significant portion of assets owned by insurance companies (~25%). The top 3 countries make up about half of total global assets owned.



Since the dataset only contains information on companies that operate in California, a comparison was made to OECD data from the same year, 2019 to see how representative CDI data was of the insurance industry in the United States. CDI companies made up 83 percent of assets managed nationally, and 19 percent of assets managed globally.

**Research and Analysis: Methodology for Interviews and Focus Groups**

In tandem with the quantitative statistical analysis on the CDI dataset, ERM spoke with over 35 insurance industry experts through one-on-one interviews and focus groups and discussed climate-related insurance investment decisions and underwriting. Interviews and focus groups captured a representative mix of perspectives from insurance industry investment teams, different insurer types, insurance regulators, and other relevant insurance industry representatives.

Outreach to and selection of interview subjects was undertaken collaboratively by Ceres, Persefoni, and ERM. Participating individuals and their job titles, as well as the names of their firms and organizations, have been anonymized as a general practice.

## Appendix 2: What If Corporate Utilities Were Not Considered Fossil Fuel-Related Assets?

S&P Global's designation of certain assets as "fossil fuel-related" was done with certain assumptions about companies' revenue and operations. If different assumptions are made, the overall results of this report's analysis are changed. The below presents the recalculation of several quantitative findings when corporate utilities are not designated as fossil fuel assets. As noted, corporate utilities derived approximately 63 percent of their energy usage from fossil fuel sources in 2019, the year under consideration in the analysis. Although at some point in the future, non-fossil fuel energy sources may be the dominant energy source for corporate utilities, that was not the case in 2019.

- If corporate utilities were not designated as fossil fuel-related assets, total amount of investment in fossil fuels in 2019 would have been \$286 billion, as opposed to a total value of fossil fuel assets including corporate utilities of \$536 billion.
- In reference to Table 4: If corporate utilities were not labeled as fossil fuel-related assets, \$17.4 billion less would be invested across the top 16 P&C insurers. The percentage of fossil fuel-related assets for each company would decrease. However, insurance firms have made other investment decisions in the intervening years that would also change the overall picture. For example, Berkshire Hathaway has acquired at least 23.1% of Occidental Petroleum, a fossil fuel-related asset, in the years since 2019.<sup>134</sup>
- In reference to Table 5: If corporate utilities were not labeled as fossil fuel-related assets, \$131 billion less would be designated as invested in fossil fuel-related assets across the top 16 life insurers. The percentage of fossil fuel-related assets for each company in would decrease. All of the top 16 life insurers would still have been designated as holding fossil fuel-related assets in 2019 even if corporate utilities had not been labeled as fossil fuel-related assets.
- In reference to Table 1: If corporate utility assets were not labeled as fossil fuel-related assets, the overall dollar value for each part of the overall set of companies is lowered, but the ranking of insurance companies by assets under management remains unchanged.
- In reference to Figure 5: If corporate utilities were not labeled as fossil fuel-related assets, insurers' 2019 investment in each fossil fuel-related asset type, as a proportion of the total fossil fuel-related asset investment, would increase as a result. For P&C companies, the 2019 asset mix without including corporate utilities as fossil fuel investments would be 62 percent Oil & Gas, 4 percent Coal, 15 percent Tar Sands, and 13 percent Other Fossil Fuel Investments. For Life companies, it would be 47 percent Oil & Gas, 1 percent Coal, 8 percent Tar Sands, and 39 percent Other Fossil Fuel Investments.

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Persefoni’s Climate Management & Accounting Platform (CMAP) provides businesses, financial institutions, and governmental agencies the software fabric for managing their organization’s climate-related data, disclosures, and performance with the same level of rigor and confidence as their financial reporting systems. The company’s software enables users to simplify the calculation of their carbon footprint, identify decarbonization strategies and perform climate trajectory modeling aligned to temperature rise scenarios set forth by the Paris agreement, and benchmark their impact by region, sector, and/or peer groups.

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**Acknowledgements**

Maya Agliandolo, Ceres  
Grant Bantin, ERM  
Emily K. Brock, Ph.D., ERM  
Monica Barros, Ceres  
Kelsey Condon, Ceres  
Heather Green, Ceres  
Meryl Hanlon, ERM  
Becca Johnson, Ceres

Amy Kvien, Ceres  
Mark Lee, ERM  
Randi Mail, Ceres  
Diane May, Ceres  
Justin Nelson, ERM  
Neah Patkunas, ERM  
Emily Pierce, Persefoni  
Taylor Rocklage, ERM  
Steven Rothstein, Ceres

Sophie Ryden, ERM  
Mike Wallace, Persefoni  
Kristina Wyatt, Persefoni

**Design**

Bruce Stoddart, ERM  
Eleanor Powell, ERM

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