The Fiduciary duty in the 21st century Report concluded that failing to consider long-term investment value drivers, which include environmental, social, and governance (ESG) issues, in investment practice is a failure of fiduciary duty. Despite significant progress, many investors have yet to fully integrate ESG factors into their investment decision-making processes. The Principles for Responsible Investment (PRI) defines ESG integration as the systematic and explicit inclusion of material ESG factors into investment analysis and investment decisions.

Following the publication of the initial report, the PRI, the United Nations Environment Programme Finance Initiative (UNEP FI), and The Generation Foundation launched a project in January 2016 to implement the report’s recommendations, including the preparation of country roadmaps. The roadmaps enable the PRI and UNEP FI to support national investors and stakeholders, as well as policy makers, in developing and implementing clear and accountable policy and practice that embraces the modern interpretation of fiduciary duty.

The US Fiduciary Duty in the 21st Century Roadmap, published in October 2016, was developed through extensive consultations and sets out recommendations in seven categories: investor education, corporate reporting, investment consultants, legal advice, stewardship and engagement, organisational process and disclosure, and Employee Retirement Income Security Act (ERISA) plan governance.

Currently, the PRI has 104 signatories that have their headquarters or are based in California, and several more have a presence in the state. California has the largest state economy in the US and the fifth largest economy in the world, and is a global center for “green” technology, climate science, and climate change mitigation and adaptation. The state has long been a leader in developing sustainability policies, and the large number of PRI signatories have begun to demonstrate growing momentum around ESG integration in investment practices. Given the size of the state’s market and the willingness of leaders in the legislature, executive branch, key regulatory agencies, state pension funds, and the private sector to undertake leading ESG-related commitments, California is an ideal jurisdiction in which to make further progress on responsible investment practices and policies. California has the opportunity to provide valuable leadership in advancing responsible investment policies and practices at the state and national levels in the US, especially so that the United States can keep pace with peer jurisdictions like the European Union in adopting responsible investment policies and practices.

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This California Roadmap is the result of a collaboration between the PRI and the Climate Risk Initiative at UC Berkeley School of Law’s Center for Law, Energy & the Environment (CLEE). It draws on interviews with stakeholders and experts in California, including state policymakers and financial regulators, fiduciaries, and asset owners (representing both the public and private sectors) who already integrate ESG factors into their decision-making. This Roadmap builds on the conclusion of the Fiduciary Duty in the 21st Century Report—that failure to integrate material ESG factors into investment decision-making is a failure of fiduciary duty—by showcasing responsible investment efforts and best practices at the state level and making a set of recommendations for public- and private-sector actions to advance ESG integration in California.
ACKNOWLEDGMENTS

The project team would like to thank the following interviewees and reviewers for their time and contribution to this document. This roadmap is prepared by the PRI and CLEE and does not necessarily represent the views of interviewees and reviewers.

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Institutional investors are increasingly conscious of the intersection between environmental, social and governance (ESG) issues, risk and return and real-world outcomes. The California Roadmap emphasizes California’s leadership in addressing ESG issues, and in particular the climate crisis, while highlighting the policies and actions state agencies and investors can take to further advance responsible investment in California.

By developing effective ways to bring investment goals and climate policy together, citizens, investors and policymakers can profoundly affect our quality of life now and in the future, while protecting Californian’s hard-earned savings and the state’s economic health. There is no longer any doubt that sustainability issues can impact financial performance -- companies which fail to address diversity, corporate governance, or environmental issues in their business decisions consistently underperform companies that do. It is therefore incumbent on fiduciaries to embed ESG factors into investment decision-making, and policymakers and regulators must create a more enabling environment for this to take place.

The California Roadmap makes important recommendations for the state legislature and public agencies, as well as public and private investors, to integrate more fully ESG factors in investment decision-making and analysis. As State Treasurer of fifth largest economy in the world, my office manages cash receipts for the state and manages bond issuances. The STO oversees an investment portfolio of more than $102 billion, approximately $20 billion of which are local government funds. We serve as the agent for the sale of all State bonds and are the trustee on over $100 billion of outstanding debt. We work to solve problems faced by Californians today, while also considering how these solutions will affect California over a long-term time horizon.
As a voting member on the boards of CalPERS and CalSTRS, it is my responsibility to ensure the state’s largest pension funds incorporate all material risk factors as part of their fiduciary duty to protect Californians’ retirement assets. In December 2019, my office sold $272.6 million of lease revenue bonds to fund a cutting-edge expansion of California State Teachers’ Retirement System (CalSTRS) headquarters in West Sacramento using innovative designs to achieve energy and resource savings while enhancing workforce well-being.

The CalSTRS project in West Sacramento is designated “Green Bonds – Climate Bond Certified.” It will use green building practices, including green technologies, sustainable construction, energy conservation, and whole-building integrated efficiency measures while also promoting employee wellness goals. The bonds will be issued by the California Infrastructure and Economic Development Bank (IBANK). As California works to address climate change and increase our resiliency, my office is promoting the use of green bonds to finance state infrastructure projects.

I am chair of the California Green Bond Market Development Committee, an undertaking supported by the Center for Environmental Public Policy at UC Berkeley's Goldman School of Public Policy. The Committee works to develop the strategy and tactics necessary to lead California to a functioning green bond market that will be a model for other states and countries. It is my hope that California's efforts and its results on this front will become the standards for governmental agencies throughout California.

We look forward to working with the PRI, state agencies and Californian investors to implement the recommendations of the Roadmap, as we continue to make our state stronger, safer, and more resilient for all Californians.
The Teachers’ Retirement Board is charged with growing and protecting the retirement savings of almost 1 million California public school educators. As Vice Chair, nothing is more important to me than careful exercise of our board’s fiduciary duty. That means mitigating risk and capitalizing on investment-related opportunities to position the fund to pay benefits far into the future.

As a global investor with a long-term investment horizon, CalSTRS maintains high governance and sustainability standards. We believe that integration of environmental, social and governance (ESG) considerations into the investment decision-making process results in a healthier and more sustainable fund for our members.

Companies that take metrics such as executive pay, workforce, diversity and climate change into account regularly outperform those that fail to implement appropriate risk management strategies. If not examined and addressed, discrepancies in CEO-to-worker pay, systemic racism, and climate change impacts will affect the value of our portfolio now and in the future. We must perform our due diligence to ensure that funds in which we invest consider both imminent and long-term risks.

I hope this report encourages pension fiduciaries in other states to consider ESG integration as a prudent risk management strategy and provides examples for policymakers and regulators to advance investment policies that will protect American worker’s retirement security.
SUMMARY OF KEY RECOMMENDATIONS

THIS CALIFORNIA ROADMAP MAKES 40 RECOMMENDATIONS IN SEVEN CATEGORIES:

- Metrics, data-sharing, and defining ESG;
- Institutional investors;
- Corporate governance and disclosure;
- State projects, procurement, and investment;
- State financing authorities;
- Insurers and insurance regulators; and
- California’s goal of carbon neutrality by 2045.

HIGH-PRIORITY RECOMMENDATIONS INCLUDE:

- The State of California, led by the Governor or State Treasurer or State Controller, should convene a Task Force on Responsible Investment.
- All institutional investors should integrate material ESG factors into investment processes and decision-making to the fullest extent possible.
- Public pension funds should develop governance structures that encourage better long-term and data-driven ESG investment decision-making.
- Public pension funds should require that investment consultants and investment managers consider ESG factors in providing investment advice or investment management.
- The state legislature should enact legislation directing financial advisors (including investment advisors, broker-dealers, and others) that are licensed and regulated by the Department of Business Oversight to ask retail investors if they have a preference for investments that consider ESG factors and to offer them ESG-aligned investment opportunities.
- The state legislature should mandate climate risk disclosure or Task Force on Climate-Related Financial Disclosures reporting for all publicly traded companies incorporated or headquartered in California.
- The state legislature should direct mandatory climate risk stress testing for financial institutions (state-chartered banks, credit unions, mortgage lenders, and others) under the jurisdiction of the Department of Business Oversight.
- The State Treasurer, Controller, and Director of Finance should leverage their positions on the boards of state financing authorities to add ESG-related disclosure requirements for state financing.
- The Department of Insurance should undertake climate risk stress testing of insurer underwriting and investment portfolios, annually conduct climate risk scenario analysis of insurers’ investment portfolios, and require insurers to identify, analyze and address climate risks to their underwriting and investment portfolios.
- California insurers should integrate ESG considerations into their operations and investment decision-making.

The complete list of recommendations begins at page 25 of this report.
The purpose of this report is to highlight California’s leadership in encouraging investors and investment managers to consider ESG factors and, in particular, climate change, and to map other actions that should be taken to increase consideration of ESG factors in investment decision-making and analysis. As the systemic risks and impacts of climate change become increasingly apparent, the responsibility and opportunity for financial actors to act on climate risk—to both manage and accelerate the transition to a low-carbon economy—is clear. With the policy, regulatory, and private sector actions taken to date globally falling short of the what is needed to reduce greenhouse gas emissions to keep global temperature rise below 1.5 degrees Celsius, the need to integrate consideration of climate risks in investment decision-making and analysis has never been more urgent.

The global COVID-19 pandemic has shown countries and businesses across the world exactly how material ESG factors are in every sector and at every level of the economy. As local, state, and national economies begin to rebuild from the economic disruption caused by the pandemic, and as California navigates yet another record-setting wildfire season, policy and economic leaders have emphasized the importance of leveraging recovery actions into a green transition. Growing recognition of the positive correlation between private companies’ ESG performance and national economic growth will support broader understanding of the economic value of sustainable investment and economic policy. While public and private actors across the world are suffering from the financial impact of the pandemic, this increased focus on green jobs, sustainable development, and protections for the most vulnerable members of society highlights the importance of ESG factors in a wide range of policy and financial decision-making. And, as the PRI’s Inevitable Policy Response project has made clear, each of the policy priorities for a transition to a decarbonized economy is linked to a significant parallel role for investors ready to address the risks and opportunities presented by climate change.

The report is structured in two parts. Part One discusses California’s landscape of institutional investors, regulation, and the insurance industry. Part Two discusses recommendations in seven key areas:

- Metrics, data-sharing, and defining ESG;
- Institutional investors;
- Corporate governance and disclosure;
- State projects, procurement, and investment;
- State financing authorities;
- Insurers and insurance regulators; and
- California’s goal of carbon neutrality by 2045.

The report also includes examples of institutional investors meeting their fiduciary duty and using ESG analysis to assess risk and identify investment opportunities; discusses landmark California policies such as the executive order to achieve carbon neutrality by 2045 and a new law that requires gender diversity on corporate boards; considers the Department of Insurance’s role in requiring insurers to disclose and address climate risk in their portfolios; and encourages disclosure of climate change related risks by corporations and financial institutions consistent with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations.

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DEFINING RESPONSIBLE INVESTMENT

The PRI defines responsible investment as a strategy and practice to incorporate environmental, social and governance (ESG) factors in investment decisions and active ownership.

WHY INVEST RESPONSIBLY?

The global momentum around responsible investment is driven by:

• Recognition in the financial community that ESG factors play a material role in determining risk and return;
• Understanding that incorporating ESG factors in investment decision-making is part of investors’ fiduciary duty to their clients and beneficiaries;
• Concern about the impact of short-termism on company performance, investment returns, and market behavior;
• Legal requirements protecting the long-term interests of beneficiaries and the wider financial system;
• Pressure from competitors seeking to differentiate themselves by offering responsible investment services as a competitive advantage;
• Beneficiaries becoming increasingly active and demanding transparency about where and how their money is being invested; and
• Value-destroying physical, legal, policy, technological, and reputational risks from issues such as contributing to and experiencing the impacts of climate change, pollution, poor working conditions, absence of employee or governing board diversity, corruption, income inequality, and aggressive tax-avoidance strategies, in a world of 24-hour global news and social media.

We note that responsible investment is not the same as socially responsible investment or impact investing. While these latter two approaches both seek to combine financial return with moral or ethical considerations, responsible investment can and should be pursued even by the investor whose sole purpose is financial return, because to ignore ESG factors is to ignore risks and opportunities that may have a material effect on the returns delivered to clients and beneficiaries. Responsible investment does not require ruling out investment in any sector or company, nor does it require the use of specialized products. Nor is responsible investment a guarantee of performance; rather, it is an essential element of sound investment strategy.

We also note that while responsible investment strategy incorporates factors across each of the environmental, social, and governance spheres, the materiality of and means to address these factors can vary widely across sectors.

Responsible Investment and Racial Justice

As renewed calls for racial justice and ending systemic racism and inequality sound throughout California, the United States and across the globe, responsible investment should play an important role in driving and supporting change. Investors should consider and engage on ESG factors which directly or indirectly perpetuate inequality. For example, investors should insist on corporations’ public disclosure on racial diversity and related metrics for corporate governing boards, executives, workers, and suppliers or contractors. And institutional investors and service providers should make the same disclosures for their own enterprises. Following protests against police brutality and racial inequality, a number of corporations have begun to take action, from voicing support for protests and movements like Black Lives Matter to removing brand logos featuring racial stereotypes. Colleges and universities, many of them significant asset owners, have also begun to reassess the racial implications of historical affiliations and admission policies. Investors can and should leverage their economic strength to support movements for racial justice by considering how the corporations they invest in are addressing racial injustice, calling for equitable labor and compensation practices, and shifting capital toward enterprises focused on just, socially sustainable outcomes.


PART ONE:

THE CALIFORNIA ESG LANDSCAPE

I. CALIFORNIA CLIMATE POLICY LEADERSHIP

A. LEADING CLIMATE PUBLIC POLICY

For years, California has provided leadership in sustainability through stewardship of natural resources, protecting the rights of residents, providing and expanding health, education and social welfare programs for those with lower incomes, seeking to address the needs of all communities, holding corporations accountable, and taking action designed to limit climate change. As the largest state in the country with approximately 40 million residents and the fifth largest economy in the world, California has the power to move markets and influence policy and regulations in the United States and around the globe. The state has delivered on this power through policies that governments across the country and the world have begun to replicate, including:

- A renewable energy standard that requires 60 percent of power to come from sources like wind and solar by 2030, with a mandate for statewide carbon-free power by 2045.
- A mandate to reduce carbon emissions 40 percent below 1990 levels by 2030, with a goal of statewide carbon neutrality by 2045.
- Zero-emission vehicle standards that will apply to 22 percent of vehicles sold in the state by 2025, and a target of 5 million electric vehicles by 2030; and
- Groundbreaking cap-and-trade and climate investment programs.

California’s leadership also involves extensive international collaboration to create solutions for climate change mitigation and adaptation, including greenhouse gas emission reduction, clean energy development, and investing in green infrastructure. These efforts include being a founding member of the Under 2 Coalition, a group of over 200 sub-national governments committed to keeping global temperature rises below 2 degrees Celsius; the US Climate Alliance, a coalition of governors committed to leading on climate change; and America’s Pledge on Climate, which collects and communicates data on state and city climate action to spur further action.

California also reflects its leadership through the commitment of public sector statewide institutional investors to the PRI, including the University of California, the California Public Employees’ Retirement System (CalPERS), and the California State Teachers’ Retirement System (CalSTRS). PRI signatories recognize that ESG issues can affect the performance of investment portfolios and commit, where consistent with fiduciary responsibilities, to integrating ESG factors into investment analysis and decision-making processes (including by asking investment service providers to integrate ESG factors in their own practices); engaging as active owners and incorporating ESG factors into ownership policies and practices (including by promoting appropriate policy and regulation); seeking appropriate disclosure on ESG factors by the entities in which they invest (including support for relevant shareholder initiatives); and promoting and reporting on implementation of the PRI principles.

However, California’s ability to drive climate progress on its own is limited. In October 2018, the Intergovernmental Panel on Climate Change (IPCC) projected that the commitments made by nations under the Paris Agreement would not be able to limit global temperature increases to the agreement’s target of 1.5°C, even with significant emissions reductions after 2030.
California state and local governments have long been leaders in using both regulatory and voluntary approaches to drive advances in emissions reduction. As governments and private actors around the world seek to enable and incentivize investor climate action, California faces another opportunity to play a leadership role.

In September 2019, Governor Gavin Newsom signed Executive Order N-19-19 to “redouble” California’s climate change efforts, including an increased focus on the state’s role as an asset owner and manager, investor, and market participant through leveraging the state’s $700 billion investment portfolio, $5 billion in annual transportation spending, tens of millions of square feet of real estate, and tens of thousands of vehicles and other physical assets. The order directs the Department of Finance to create a Climate Investment Framework including a climate risk investment strategy for state pension funds; directs the State Transportation Agency to align capital investments with state climate goals; directs the Department of General Services to align vehicle fleet, real estate, and goods procurement with state climate goals; and directs the California Air Resources Board (CARB) to develop new strategies to increase zero-emission vehicle adoption. This enhanced focus on the state’s ability to drive climate policy through direct investment, procurement, and other market-related action marks a new opportunity for public and private actors in California to accelerate ESG integration.

**ESG and the Just Transition**

The transition to a sustainable, low-carbon economy will rely on structural shifts away from the fossil fuel industry and other sectors responsible for significant greenhouse gas emissions, leading to potential displacement of some workers and near-term economic challenges for certain communities, states, and countries. Ensuring that the economic transition is a just transition—that it focuses on economic development and environmental and social equity in industries and communities most affected by these shifts—is an essential part of addressing ESG factors as an element of fiduciary duty. A just transition not only expressly links the environmental and social elements of ESG, but also supports stability in the financial system, drives long-term value for investors, and creates new investment opportunities. As the global economic transition toward decarbonization progresses, integrating consideration of just transition factors and issues into investment plans and policy measures is essential.

**B. MARKET INCENTIVES TO LIMIT GHG EMISSIONS**

While market-based mechanisms to reduce greenhouse gas emissions such as carbon taxes or greenhouse gas emission caps coupled with emissions credit trading have not yet been adopted at the federal level in the United States, California has implemented a greenhouse gas emissions (GHG) cap-and-trade program since 2012. CARB crafted and implements the program pursuant to Assembly Bill 32, which directed the state to reduce emissions to 1990 levels by 2020 and authorized CARB to use market-based mechanisms (among others) to achieve this target. The program sets a cap on overall emissions and allows regulated entities to purchase and trade emissions allowances (as well as a declining number of certified emissions offsets) under the cap, facilitating economically efficient reduction of emissions. In 2014, the governments of California and Quebec formally linked their respective cap-and-trade systems to create a multi-jurisdictional trading system. In 2018, the California legislature extended the cap-and-trade program’s authorization through 2030.

The cap-and-trade program applies nearly economy-wide (after a phase-in period that gradually added industrial and other sources), and emission allowance prices have typically been low, ranging from $10 to $16. The program is often hailed as a national and international model, and it helped California achieve its 2020 emission reduction goal as early as 2016 by creating a baseline carbon price to support other emission-reduction policies and by raising billions of dollars for climate mitigation and adaptation investments. But there are questions around its ability to drive the state to its 2030 goal of reducing emissions 40% below 1990 levels, due to issues including emissions leakage to other jurisdictions, oil and gas industry activities, and a low carbon price. (Reduced fossil fuel demand and industrial activity due to the stay-at-home orders and economic fallout of the COVID-19 pandemic, along with a general surplus of allowances, have had a significant impact on cap-and-trade revenues, with the May 2020 auction generating hundreds of millions of dollars less than prior equivalent auctions.)

Increasingly aggressive action will be needed to reduce emissions as pledged in the Paris Agreement and to achieve California’s 2045 statewide carbon neutrality target, including more stringent energy, transportation, and efficiency programs and a tightened statewide emissions cap—expanding from and strengthening California’s existing regulatory and market-based programs. Aligning market-based instruments with these emissions goals could both generate...
significant economic benefits and reduce the numerous market risks associated with climate change. According to the TCFD, two types of climate-related risks and opportunities are most relevant to investors: the physical risks of climate change to real economy companies and financial sector firms; and transition risks to existing economic activity and investor portfolios from the shift to a low- and zero-carbon economy. Investors and financial regulators should respond to these climate-related risks (such as losses associated with more frequent and severe catastrophic weather-related events like hurricanes, floods, and wildfires), which are already having a financial and economic impact and will only grow over time given limited progress in reducing global greenhouse gas emissions.

C. TREASURER’S INITIATIVES

The California State Treasurer has made a strong commitment to growing the market for green bonds, which are public or private sector debt issuance to fund sustainability and/or climate-friendly projects. The global green bond market has grown considerably since it began, from $800 million issued in 2007 to over $200 billion issued in 2019. The US, however, represents a disproportionately small part of the global green bond market. The California State Treasurer has been engaged in a multi-year project to build the green bond market and drive billions of dollars of bond-funded climate-friendly infrastructure, and has issued a two-part synthesis report detailing barriers and strategies for growth. In 2018, the Treasurer signed the Green Bond Pledge, a joint initiative of several international finance and climate groups committing to addressing climate risk through all long-term infrastructure bond financing.

In addition, the Treasurer has made a strong commitment to growing energy efficiency initiatives, primarily through the California Hub for Energy Efficiency Financing (CHEEF), a unit of the California Alternative Energy and Advanced Transportation Financing Authority.

The CHEEF administers pilot programs for innovative energy efficiency financing mechanisms such as on-bill financing, in collaboration with the California Public Utilities Commission. In 2019, the Treasurer launched the Small Business and Affordable Multifamily Energy Efficiency Financing Programs to reduce the cost of financing energy efficiency improvements by providing state-funded loan loss reserves to lenders that offer better terms to qualifying small business, non-profit, and affordable housing borrowers. The Treasurer also convened a Housing, Economic Development, Jobs and Opportunity Zone committee in 2019 with a focus on increasing housing production to address California’s affordable housing crisis.

Sustainable Development Bonds and COVID-19

Sustainable development bonds provide an opportunity for investors to invest in projects which address ESG factors by funding projects aligned with UN Sustainable Development Goals (SDGs) such as gender equality, sustainable cities, and climate resilience. In response to the COVID-19 pandemic, the World Bank and other financing institutions have issued bonds to support response measures throughout health care systems including testing, treatment, and patient tracking. These bonds may be classified as sustainable development bonds as they support the health and well-being SDGs. However, for these issuances to qualify as sustainable bonds in service of the SDGs, their proceeds must be fully linked to SDG-related pandemic response goals, which may prove challenging in the rapid response context of the ongoing health crisis. As the pandemic exposes more of the deep interconnections between ESG factors, ensuring the strength of these links across all sustainable and green bonds will become increasingly important.
II. STATE AND FEDERAL INVESTOR REGULATION AND GUIDANCE

While California has led an aggressive and comprehensive effort to reduce greenhouse gas emissions and address climate change, federal efforts to strengthen investor consideration of climate risk and other ESG factors have been much more limited. However, a few key federal examples from the Obama Administration stand out, including US Department of Labor (DOL) guidance for retirement plans regulated under the Employee Retirement Income Security Act (ERISA), and Internal Revenue Service (IRS) guidance for private foundations:

- A 2015 IRS notice formally stated that private foundations may make investments that further their charitable missions, potentially encompassing ESG factors. The notice affirmed that it is consistent with state law to invest both for charitable goals and financial return without breaching fiduciary duty.

- In 2015, DOL issued guidance acknowledging that ESG factors can have a financial impact on retirement plan investments, stating that when ESG factors have direct impact on economic value, they are “not merely collateral considerations or tie-breakers, but rather are proper components of the fiduciary’s primary analysis of the economic merits of competing investment choices”.

- In 2016, DOL published guidance confirming that consideration of ESG factors was consistent with shareholder engagement under ERISA. However, a 2018 DOL bulletin advised that fiduciaries of ERISA-covered plans must avoid too readily treating ESG factors as being economically relevant to any particular investment choice (while stating that where ESG factors are financially material, they are part of a prudent investment decision). In 2019, President Trump followed this guidance with an executive order directing DOL to review ERISA-covered plans’ investments in the energy sector and prepare guidance aligned with the administration’s policies promoting domestic energy development. In June 2020, DOL proposed a new rule that could further limit consideration of ESG factors in ERISA plan investment decision-making, barring fiduciaries from considering ESG factors unless they are treated as material economic considerations under generally accepted investment theories. (However, in contrast to DOL’s assumption that ESG integration may “subordinate return or increase risk for the purpose of non-financial objectives,” research has demonstrated that there is no negative correlation between ESG considerations and investment performance, and a wide range of sustainable investment advocates, asset managers, and members of Congress have filed comments in opposition to the proposed rule.)

California’s state-level leadership to strengthen consideration of ESG factors includes a range of legislation and regulation, including but not limited to:

- California’s 2008 Uniform Prudent Management of Institutional Funds Act, which provides guidance on investment decision-making and spending for foundations and charities. While this guidance does not specifically refer to mission-related investing, analysis of the law indicates that proper fiduciary action can encompass mission-driven considerations (including those that align with ESG factors) so long as those considerations are taken among other factors that apply to prudent investing.

- In 2011, California Insurance Commissioner Dave Jones launched the Insurance Diversity Initiative, which encouraged insurers to diversify their governing boards and their suppliers. Insurers were required to disclose their “diverse spend,” number and percentage of diverse suppliers, and the diversity of their governing boards. These reporting requirements are now codified in state law.


46 See Cal. Ins. Code § 927. The original Insurance Diversity Initiative required insurance companies to report by company the diversity of their corporate boards. In 2019, the Legislature enacted Senate Bill 534 (Bradford, Chapter 249), which restricted the Insurance Commissioner to reporting insurance industry governing board diversity in the aggregate and prevents reporting of individual insurers’ responses.
A 2015 state law directed state pension plans to divest from thermal coal companies, and two separate laws directed the funds to divest from oil and gas companies with critical operations in Iran and Sudan.47

Enacted in 2018, Senate Bill 964 requires state pension plans to disclose and monitor climate-related financial risk.48

Senate Bill 826, also enacted in 2018, requires corporate boards of California-headquartered companies to include female directors.49

AB 2041, enacted in 2018, urges the Regents of the University of California to require the UC Office of the Chief Investment Officer to use reasonable efforts to encourage diversity, to request partner firms to use reasonable efforts to encourage diversity, and to launch an emerging manager program.50

Governor Gavin Newsom’s 2019 Executive Order N-19-19, as noted above, directed a group of state agencies to increase their focus on climate-related investment considerations, including directing the Department of Finance to develop a climate risk investment strategy for state pension funds.

European Leadership

In 2015, France enacted Article 173 of the Energy Transition Law, a groundbreaking climate risk disclosure law that requires publicly traded companies, banks, asset managers, and institutional investors to undertake a range of climate risk reporting measures including:

- Climate-related stress testing for banks and credit providers;
- Climate risk, mitigation effort, and environmental impact reporting requirements for publicly traded companies;
- ESG policy reporting requirements for smaller asset managers and institutional investors; and
- ESG policy, climate risk assessment, and portfolio contribution to emission reduction target reporting requirements for larger asset managers and institutional investors.51

In 2018, the European Commission began work on a first-of-its-kind “green taxonomy” classification system for the environmental impacts and benefits of activities in all sectors of the economy, to help companies assess their own environmental performance and help investors and financing institutions assess the performance of companies in their portfolios.52 The European Council formally adopted the taxonomy in 2020, and reporting is set to begin in 2021, with the goal of classifying “green” economic activities that make substantial contributions to environmental goals across climate, water, ecosystems, a circular economy and other criteria.53

The 2020 UK Stewardship Code includes an “apply and explain” approach for asset owners and managers with respect to ESG factors material to their investments. This approach requires investors to both apply a substantive requirement of systematically integrating ESG considerations into their investment decisions and disclose the processes used to achieve that integration.54

47 Senate Bill 185 (De Leon, Chapter 605, Statutes of 2015) (Cal. Gov’t Code § 7513.75); Cal. Gov’t Code §§ 7513.6, 7513.7.
48 Allen, Chapter 731, Statutes of 2018 (Cal. Govt. Code § 7510.5).
III. CALIFORNIA STATE REGULATORY AND FINANCING AUTHORITY

A review of existing regulatory authority pursuant to the statutory mandates of California’s state financial regulators—including the Department of Insurance, the Department of Business Oversight, the Department of Finance, the State Treasurer’s Office, and the Public Utilities Commission—did not identify significant additional rulemaking power directly linked to ESG integration or climate risk concerns. However, certain capacities at these and other state financial entities may have the potential for ESG-related applications:

- The California Department of Insurance (CDI) has undertaken multiple regulatory initiatives related to climate risks to insurers’ investment portfolios. The Climate Risk Carbon Initiative (begun in 2016) required large insurers to report on their investments in fossil fuel and thermal coal holdings; requested that all insurers doing business in California divest from thermal coal holdings; and conducted a scenario analysis of climate risk to insurers’ investments. CDI also could undertake climate risk stress testing of insurers underwriting and investment portfolios, consistent with its financial oversight role. CDI could survey insurers with regard to whether and to what extent they are considering ESG factors in their investment decision-making. The department, as noted above, has used its survey or “data call” authority to require insurers to disclose information about the diversity of their suppliers/vendors and governing boards. These are some examples of how CDI has and could use its existing authority to encourage insurers to consider ESG factors in their investments and operations.

- The California Public Utilities Commission (CPUC) holds generally broad regulatory authority over the industries within its jurisdictions, which include a number of industries with significant implications for achievement of environmental policy goals, in particular: electric power, natural gas, water service, and rail and passenger transportation. While there appears to be no specific existing mandate for the commission to require integration or consideration of ESG factors by these regulated entities in their decision-making, some existing authority—the commission’s review and approval of utility rates and its issuance of operating licenses—could also present a potential area for introduction of climate- and ESG-related requirements. For example, under General Order 156, the CPUC holds an annual hearing as a part of its rate setting process for investor owned utilities where utilities are required to provide information about the extent to which they are using diverse suppliers. The CPUC could similarly ask utilities it regulates to disclose whether and to what extent they are taking into consideration ESG factors in their investments and operations, and to what extent they are disclosing ESG factors associated with their operations to investors in the utilities, if they are investor owned.

- The California Department of Business Oversight (DBO) has authority to conduct periodic examinations of the accounts of entities it regulates, including state-licensed banks, broker-dealers, investment advisors, finance lenders, residential mortgage lenders, short-term lenders, and student loan servicers. These examinations include review of compliance with federal and certain state legal requirements, including California-specific items such as predatory lending restrictions. But the department has not in the past required reporting of any information not directly linked to existing law or regulation, and no current law or regulation appears to expressly call for ESG-related reporting or action from these parties, with most rules focused simply on fair and equitable transactions. However, the department is vested with broad authority as it relates to its supervisory powers and responsibilities.

- The state’s bond issuance authority, which under the California Constitution requires a two-thirds supermajority vote in the legislature and statewide ballot initiative approval for any issuance of bond debt greater than $300,000, allows the legislature to craft bond issuances with terms and limitations that reflect the legislature’s policy priorities, potentially including consideration and public reporting by public agencies distributing the bond funds of ESG factors associated with the programs and projects funded through the bond issuance. In addition to bonds that fund major statewide projects, municipal bonds finance a wide range of local infrastructure projects that may impact greenhouse gas emissions (such as highway expansions that could increase vehicle miles traveled) and/or face risks due to climate change (such as coastal projects threatened by sea-level rise), suggesting a potential role for enhanced disclosure of ESG considerations that could affect issuers or projects.

- A number of state financing and lending authorities which focus on particular categories of projects which may have ESG-related impacts could potentially integrate ESG and climate risk disclosure requirements into their loan issuance criteria, although no existing law or regulation directs such action. In addition, as “conduit issuers” of financing, these authorities are...
subject to both bond underwriters’ priorities and competition from other sources of financing, meaning they may have limited room to impose additional requirements). These include:

- The California Pollution Control Financing Authority (CPCFA), which provides tax-exempt financing to California business and industries for waste and recycling projects62.
- The Tax Credit Allocation Committee (TCAC), which is responsible for administering state and federal low-income housing tax credit programs63.
- The California Debt Limit Allocation Committee (CDLAC), which sets and allocates California’s annual debt ceiling, and administers the state’s tax-exempt bond program to issue the debt with proceeds used to finance low-income housing, waste facilities, and higher education loans64.
- The California Health Facilities Financing Authority (CHFFA), which provides loans, grants, and tax-exempt bonds to public and non-profit health care providers65.
- The California School Finance Authority (CSFA), which finances educational facilities and provides school districts and community college districts access to working capital66.
- California Infrastructure and Economic Development Bank (I-Bank), which is the state’s general-purpose infrastructure financing authority67.

In many cases, however, new legislation may be necessary for state financial regulators and state finance authorities to take more comprehensive ESG-related action.

### The Task Force on Climate-Related Financial Disclosures

The TCFD is a voluntary framework “for companies and other organizations to develop more effective climate-related financial disclosures through their existing reporting processes” in light of the urgent need for progress toward global climate goals68. The framework aims to translate non-financial information into financial information in a manner that is:

- Adoptable by all organizations;
- Included in financial filings;
- Designed to solicit decision-useful, forward-looking information on financial impacts; and
- Has a strong focus on risks and opportunities related to the transition to a lower-carbon economy.

In the absence of federal requirements for companies to disclose climate change risk, the TCFD disclosure standard has emerged as a recommended and widely employed voluntary disclosure framework69. The framework is a touchpoint for many investors, companies, and regulators seeking to increase climate-related disclosure and data-sharing and support greater ESG integration.

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64 See Cal. Govt. Code §§ 8869.80 et seq.
IV. CALIFORNIA INSTITUTIONAL INVESTOR LEADERSHIP

California’s state pension plans, CalPERS and CalSTRS, have led nationally with regard to ESG integration in investment and stewardship policy and practice. Both are signatories to the PRI. Some county and municipal pension plans, university endowments, foundations, and asset managers are also leaders with regard to considering ESG factors in investment.

Employees of the State of California and California municipal and county governments typically receive their retirement benefits through one or more of CalPERS, CalSTRS, a county retirement plan, and/or a municipal retirement plan. Based on the most recently available public data (2016), California’s total public pension assets totaled over $750 billion, equal to approximately 20 percent of the national total70. In 2018-19, the combined net assets of CalPERS and CalSTRS alone exceeded $600 billion71.

CalPERS and CalSTRS have been state leaders, but the Los Angeles County Employees Retirement Association (LACERA) and San Francisco Employees’ Retirement System (SFERS), both PRI signatories, have also been at the forefront through adding dedicated ESG resources and collaborating on investor engagement initiatives such as Climate Action 100+. Due to the sheer asset size of California retirement assets, there is enormous potential for making investments that take into consideration environmental, social, and governance issues and for encouraging corporations in the real economy to make climate and other ESG disclosures.

A. STATE RETIREMENT FUNDS

State retirement funds in California are governed by provisions of the California State Constitution, state law provisions primarily in the Government Code and Education Code, and regulations issued thereunder. The California State Controller, who is the chief fiscal officer of California and sits on each pension board, oversees the state pension funds. The Constitution’s grant to state pension fund boards of exclusive fiduciary responsibility over their assets, and their obligation to hold those assets exclusively for the benefit of participants, guides the funds’ and the state legislature’s ability to integrate new considerations into investment decision-making72. In particular, the Constitution’s requirement that pension fund boards discharge their duties “solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries” limits their ability to make investment decisions based on considerations other than participants’ interests—but (as demonstrated by the funds’ recent ESG-related actions described below, and by legislation such as SB 964) it does not prohibit robust ESG integration in accordance with fiduciary duty and for the benefit of fund participants73. And, in fact, to the extent that fiduciary duty (and its constituent duties of loyalty and prudence) requires consideration of all long-term investment value drivers, incorporation of material ESG factors into investment decision-making falls squarely within it.

With a net position of over $370 billion in 2019, CalPERS is the largest pension fund in California and the United States74. As a prominent long-term investor, CalPERS has demonstrated leadership over decades, beginning with its corporate governance reform program introduced in 198475. It has been a founding and/or lead participant in many networks and collaborations such as The Council of Institutional Investors, the International Corporate Governance Network, and the Investor Network on Climate Risk, and helped to lead the design and development of Climate Action 100+ with other investor representatives76.

CalPERS was a founding signatory to the PRI in 2006 and has committed to implement the Principles consistent with its “fiduciary duty to generate risk-adjusted returns for our beneficiaries”77. CalPERS’ board approved a ‘total fund’ approach to ESG integration in 2011, built upon three forms of economic capital: financial, physical and human78. During development of the framework,
CalPERS issued a call for proposals and amassed hundreds of academic and practitioner articles and publications on ESG topics and investing, now publicly available as the Sustainable Investment Research Initiative (SIRI) library80.

In 2013, CalPERS developed a set of ten investment beliefs to guide and inform strategic investment and operational decisions. They provide context for decision-making, recognizing the pension benefit obligation is also to future generations, and including environmental factors in consideration of long-term value creation81.

CalPERS maintains a focus on governance and corporate engagement as key components of its investment program, having identified five interrelated issues that are central to long-term value creation: Investor Rights; Board Quality: Diversity, Independence and Competence; Executive, Director and Employee Compensation; Corporate Reporting; and Regulatory Effectiveness82. These core issues help define areas of engagement.

CalPERS’ director of sustainable investments, first appointed in 2018, is responsible for managing ESG integration and collaborative engagements across the total fund83. This includes ESG incorporation in manager selection, appointment and monitoring processes, for which CalPERS was recognized by the PRI as part of the 2019 Leaders’ Group84. In 2019, CalPERS became a founding member and the first US fund to join the UN-convened Net Zero Asset Owner Alliance, an initiative to transition investment portfolios to net zero greenhouse gas emissions by 2050, in line with the Paris Agreement85. Alongside this commitment, CalPERS launched its Real Estate Energy Optimization Initiative, which seeks to mitigate portfolio climate risk through reducing the carbon intensity of its real estate investment portfolio while enhancing returns through capturing energy cost savings and improving the attractiveness of the assets to tenants86.

At over $230 billion, CalSTRS is California’s second-largest pension plan and over the years has exhibited leadership through its corporate governance program and engagement87. In 2008, CalSTRS established an Investment Policy for Mitigating ESG Risks and a set of ESG “Risk Factors” to inform its guiding sustainability principles; recent updates have included topics such as climate change, resource efficiency, and respect for indigenous rights88. ESG-related actions in recent years have focused on encouraging election of women to corporate boards, firearm safety and investment, and climate risk and the transition to a low-carbon economy89. CalSTRS codified its overarching principles for managing its investment portfolio in nine Investment Beliefs in July 2018, covering long-term investment and diversification, corporate governance and ESG factors, and climate and economic transition risks90. These Investment Beliefs, including consideration of material ESG factors, govern the management of CalSTRS’ investment portfolio, and the Investment Policy for Mitigating ESG Risks makes the Chief Investment Officer directly responsible for assessing and addressing ESG policy violations, demonstrating the extent to which CalSTRS has been a leader in incorporating climate risk and sustainability at the highest levels of governance and leadership91.

In 2007, CalSTRS established the Green Initiative Task Force (“Green Team”) with representatives across asset classes to identify and assess the risks and opportunities of prospective climate change investments. Since then, the Green Team has broadened its reach to include issues relating to land use, water sourcing, mineral extraction and waste disposal92.

The most recent Green Initiative Task Force Annual Report (2018-19) outlines current ESG integration and theme-based investments across asset classes. Within fixed income, CalSTRS has been an active green bond investor for several years and now holds $286 million of its $30 billion fixed income portfolio in green bonds. Industry participation includes representation on the Climate Bond Standards Board of the Climate Bonds Initiative, the Executive Committee of the International Capital Market Association’s Green Bond Principles93.

82 See CalPERS, CalPERS’ Governance & Sustainability Principles, supra, p. 5.
93 CalSTRS, Green Initiative Task Force Annual Report, supra.
The initial implementation of CalSTRS’ $2.5 billion Low-Carbon Index took place July 1, 2017. The first phase was a $1.3 billion investment in the US market. The second phase, which took place November 1, 2018, was a $1.0 billion investment in non-US developed markets. The third phase will be a $200 million investment in emerging markets. CalSTRS estimated a reduction in carbon emissions of 61%, 76% and 80% within the US, developed, and global markets indices, respectively94. The $2.5 billion low-carbon index commitment developed in part from a climate change risk assessment conducted by Mercer Consulting in 201695.

CalSavers Retirement Savings Program is a state-run retirement system for private-sector workers that began operating in 2019. All employers with at least 5 employees are required to offer employees access to CalSavers or a private market plan. The goal is to “ensure all Californians have a path to financial security in retirement by providing a simple, portable, low-cost way for workers to invest in their futures”96.” In January 2019, CalSavers became the first state-sponsored retirement program to offer an ESG investment option to participants97.

B. COUNTY EMPLOYEE RETIREMENT FUNDS

County employee retirement funds in California are governed by the California Constitution and the County Employees Retirement Law of 1937 (CERL or the 1937 Act). There are 20 county retirement systems in California that collectively represent approximately $110 billion in assets under management. Despite being subject to the same fiduciary duties as state plans, California county retirement plans have, with several exceptions, taken significantly fewer steps than state plans towards ESG incorporation in investment and stewardship policy and practice. One notable exception is the Los Angeles County Employees Retirement Association (LACERA), which has codified in its investment policy statement the relevance of ESG factors to the prudent discharge of fiduciary duties, and has outlined in its governing documents processes for ESG incorporation in investment and stewardship activities98.

LACERA became a signatory to the PRI in 2008 and has taken the following actions:

- Establishing a dedicated committee of its board to establish policies and oversee activities related to the integration of ESG factors;
- Incorporating into its Investment Policy Statement a set of Investment Beliefs that include a recognition that ESG factors are relevant to the investment process;
- Taking a Total Fund approach to assess external asset managers’ approach to identify, evaluate, and incorporate into the investment process material ESG factors that may impact the financial performance of the mandate;
- Including consideration of climate risks in its due diligence of each investment mandate and incorporating portfolio analytical tools to evaluate climate-related physical and transition risks and inform its investment decisions;
- Formally endorsing the Financial Stability Board’s Taskforce on Climate-related Financial Disclosures99, signing onto the Global Investor Statement to Governments on Climate Change100, and participating in the Climate Action 100+ initiative global investor initiative101.
- Engaging California companies to encourage broader consideration of diversity in corporate governance policies, board recruitment and refreshment, and self-evaluation practices with other investors102.
- Becoming a member of the Council of Institutional Investors and the Sustainability Accounting Standards Board and collaborating with both on encouraging sound financial market policies, investor rights, and corporate ESG disclosure.

94 Id., p. 43.
96 See https://www.calpers.ca.gov/ for more information.
101 See LACERA, Minutes of Special Meeting of the Corporate Governance Committee and Board of Investments (July 10, 2018), available at https://www.lacera.com/about_lacera/boi/meetings/corp_gov/2018-10-10_corp_gov_agnd.pdf.
102 See LACERA, Minutes of Special Meeting of the Corporate Governance Committee and Board of Investments (July 10, 2018), available at https://www.lacera.com/about_lacera/boi/meetings/corp_gov/2018-10-10_corp_gov_agnd.pdf. Id. Broader consideration of diversity includes gender, race and ethnicity, and the LGBTQ community.
C. MUNICIPAL EMPLOYEE RETIREMENT FUNDS

Municipal employee retirement plans are governed by the same provisions and fiduciary duty obligations as state and county plans under the California State Constitution. While ESG-focused action has been much more limited at the municipal level than the state level, both the San Francisco Employees Retirement System (SFERS) and the Los Angeles City Employees Retirement System (LACERS) are PRI signatories. SFERS (which is both a city and a county plan due to San Francisco’s dual designation) has been a leader among municipalities. SFERS became a PRI signatory in 2017, adopted a climate risk strategy and hired a Director of ESG Investing in 2018, and has begun to divest from high-carbon assets and increase investment in low-carbon investments pursuant to that strategy. The fund has also begun to integrate ESG considerations into investment manager selection and has hired a number of ESG-focused managers. These actions followed multiple resolutions of the San Francisco Board of Supervisors urging SFERS to divest from publicly traded fossil fuel companies, which had no legally binding effect but which demonstrated the public agency employer and public support for SFERS to divest from assets facing climate related financial risks.

D. PRIVATE

Private defined benefit (DB) and defined contribution (DC) plans, two of the predominant retirement plan formats offered by private employers in the US, are governed by ERISA. Under ERISA, administrators of DB plans are legally obligated to discharge a more narrowly defined fiduciary duty and are first and foremost focused on liability management. As a result, ESG integration has not yet become a priority for California-domiciled private DB and DC plans.

E. FOUNDATIONS

According to most recently available estimates, California had over 9,000 private foundations with combined assets of $250 billion as of 2017, including a number of individual foundations with assets in excess of $1 billion. A number of foundations have mission-related investments and program related investments, yet few have integrated ESG within their entire investment portfolio or engaged as active owners on ESG issues.

The Silicon Valley Community Foundation, one of the largest community foundations in the world (with assets of $8.9 billion as of 2018) is an example of ESG leadership, with two investment portfolios that include mission-aligned and/or ESG-integrated strategies. The foundation’s Social Impact Pool is broadly diversified with public equity, public fixed income, and private investments, and has 4 sustainability themes (sustainable global growth, inclusive economies, healthy communities, and community development). The Capital Preservation Pool is partly invested in Community Development Financial Institutions and Community Banks that provide access to credit for low- and moderate-income communities. Other foundations leading on ESG integration include the Sierra Club Foundation, which is a PRI signatory with five separate investment portfolios aligned with its environmental protection mission, and the Skoll Foundation, whose sole investment manager, Capricorn Investment Group, is a PRI signatory, a Certified B Corporation, and a global leader in mission-aligned investing.


105 See San Francisco Board of Supervisors, Resolution 335-17 (September 12, 2017), available at https://sfbos.org/sites/default/files/0335-17.pdf.


F. COLLEGE AND UNIVERSITY ENDOWMENTS

According to the 2019 National Association of College and University Business Officers endowment survey, 72 California colleges and universities reported a total of $70.9 billion in assets, representing just over 10% of total US endowment assets112. A number of these endowments exceed $1 billion in assets.

The University of California Office of the Chief Investment Officer (OCIO), a PRI signatory since 2014, is very active in ESG incorporation across the multiple pools of capital it manages, including the university system’s endowment, pension, and working capital assets. In 2014, the OCIO laid out a plan to invest $1 billion in climate solutions, develop a sustainable investment framework, and hire dedicated sustainable investment staff, all of which it has accomplished. The OCIO’s sustainable investment framework aims to be consistent with university-wide sustainability initiatives, with a focus on climate change, inequality, human rights, food and water security, diversity and inclusion, and other ESG considerations to help guide decision-making as a long-term investor113.

In 2019, the OCIO became a signatory to the Climate Action 100+ initiative, and in May 2020 the UC Regents announced that the system had completely divested its $126 billion investment portfolio of all holdings in companies involved in fossil fuel extraction114.

Several California universities are also members of the Intentional Endowments Network (IEN), a peer learning network supporting higher education institutions with aligning investments with organizational missions while earning competitive financial returns115. The California State University and the University of California systems are both founding members of IEN.

G. ASSET MANAGERS

Over eighty California-domiciled asset managers have stated a commitment to ESG incorporation as PRI signatories, and several have had an ESG focus and/or ESG-based approach since inception. A number of California asset managers, including Capital Group, Makena Capital Management, Payden & Rygel, PIMCO, TCW Group, and Western Asset Management have taken leadership roles in the advisory committees and working groups that implement the PRI’s goals. The trillions of dollars represented globally through these firms provide more opportunity for California-domiciled asset managers to add to the State’s leadership in responsible investment.

Private Asset Management Leadership

In early 2020, BlackRock, the world’s largest private asset manager, took a number of steps signaling an increased focus on ESG integration. In a letter to clients, the firm committed to increasing the use of sustainability and ESG lenses in investment decisions, divesting from companies that generate more than 25 percent of their revenues from thermal coal, and expanding ESG- and sustainability-related investment offerings, among other measures116. In a letter to CEOs, the firm requested that companies in which it is invested to publish disclosures in line with TCFD recommendations and Sustainability Accounting Standards Board (SASB) guidelines, and suggested it will begin to vote against boards of directors that do not appropriately account for sustainability concerns117. The firm also joined the Climate Action 100+ initiative. While it is too early to tell the impact of these measures, BlackRock’s size gives it the potential to have significant influence in the broader asset management and corporate communities.

112 See National Association of College and University Business Officers, “U.S. and Canadian Institutions Listed by Fiscal Year 2019 Endowment Market Value and Change in Endowment Market Value from FY18 to FY19,” available at https://www.nacubo.org/Research/2020/Public-NTSE-Tables (total California institution assets were summed from all US and Canada institutions).


V. INSURANCE INDUSTRY

The insurance industry’s key role as risk managers, risk carriers and investors makes it a central player in a future marked by climate change and carbon constraints. Several initiatives and actions involving non-US based insurers have proactively recognized this responsibility and seek to engage insurers to raise awareness, incorporate relevant ESG factors in all decision making, and disclose carbon risk. UNEP FI launched the Principles for Sustainable Insurance (PSI) in 2012 to provide a “global framework for the insurance industry to address ESG risks and opportunities.” The principles include transitioning investment portfolios away from fossil fuels; fully integrating ESG concerns into decision-making frameworks; partnering with policymakers to further develop ESG management; and enhancing disclosure of environmental performance. In 2020, PSI issued an insurer ESG guide with recommendations for approaches to integration, analysis of risks, and institutional decision-making including investments.

No US-based insurers have become signatories to the PSI, but the California and Washington State insurance departments (as well as a number of non-profit and advisory entities) formally support the framework. Only one US-based insurer, the Reinsurance Group of America, is a PRI signatory.

The National Association of Insurance Commissioners (NAIC) created an annual Climate Risk Disclosure Survey in 2010 for use by state insurance regulators. The California Department of Insurance has led implementation of the survey nationally since 2011 and hosts the online database of survey results. Insurers writing more than $100 million in premiums are required to answer a survey that aims to “assess insurer strategy and preparedness in the areas of investment, mitigation, financial solvency (risk management), emissions/carbon footprint and engaging consumers.” Analysis of survey data by the sustainable investment coalition Ceres showed relatively low insurer responsiveness to climate risk, with only 16% of respondents receiving a high quality rating in 2016 (Ceres has not conducted an update of the analysis). Ceres’ recommendations to increase responsiveness to climate risk included elevating climate risk to the Board and C-suite levels and considering carbon asset risk in investment portfolios.

California is the largest insurance market in the US and one of the largest in the world, and the state’s Department of Insurance (CDI) plays a leadership role in addressing some ESG risks, including climate risk disclosure. Under former California Insurance Commissioner Dave Jones, the department launched the Climate Risk Carbon Initiative, including a first-in-the-nation climate risk scenario analysis to analyze transition-related risk to insurance industry investments, mandatory disclosure of insurers’ fossil fuel investments, and a call for divestment from thermal coal. CDI issued a Climate Risk Data Survey to examine insurers’ investment portfolios for fossil fuel exposure and to request divestment from high risk thermal coal; between 2016 and 2018, the results showed an 86% increase in respondents that had divested or were willing to divest from thermal coal assets. CDI’s climate risk scenario analysis of insurers’ investment portfolios showed a general misalignment of their fossil fuel and renewable energy investment allocations with economic pathways to limit global temperature increases to two degrees Celsius, and mixed overall exposure to physical risks of climate change. CDI is also a founding member of the Sustainable Insurance Forum (the Washington and New York State insurance regulators are also members), which provides a platform for regulators and supervisors to share and develop best practices regarding sustainable insurance practices including ESG and climate risk integration. In 2019, Insurance Commissioner Ricardo Lara and PSI announced the development of a Sustainable Insurance Roadmap, the first partnership between PSI and a US state insurance regulator to prepare innovative risk management, insurance, and investment solutions.

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119 See UN PSI and UNEP FI, “The PSI Initiative” (webpage), available at https://www.unepfi.org/psi/vision-purpose/


121 See UN PSI, “Signatory companies” (webpage), available at https://www.unepfi.org/psi/signatory-companies/


124 See NAIC, “Climate Change and Risk Disclosure.”


130 See https://www.sustainableinsuranceforum.org/activities.

Insurers and Climate Risk

Insurance experts recognize that climate change presents a fundamental risk to the insurance business model, threatening unprecedented losses to physical assets around the world due to sea-level rise, wildfire, and other catastrophes while at the same time threatening the value of investment portfolios that are not adapted to the emerging and inevitable economic transition associated with addressing climate change. Insurers are increasing their data analysis capacities to craft products that better reflect local risk and risk-reduction measures through price differentiation, as well as increasing their offerings of catastrophe bonds and developing new mechanisms to reward climate risk mitigation. Insurers have also begun to craft innovative solutions to address climate risk, such as parametric insurance products that align public and private incentives to protect natural infrastructure and support proactive recovery efforts, with the collaboration between Swiss Re, The Nature Conservancy, and the government of Quintana Roo, Mexico to insure a coral reef providing a leading example. In 2018, Senate Bill 30 (Lara) directed CDI to convene a working group to identify and promote similar nature-based climate risk solutions, and in 2020 Insurance Commissioner Ricardo Lara launched a Climate Smart Insurance Products Database, a pioneering list of green insurance products to help consumers access these products and drive further innovation.

California has experienced record wildfires in recent years, with the 2017 and 2018 fire seasons producing both the two largest fires in state history (the 2018 Mendocino Complex fire and the 2017 Thomas fire) and the two most destructive (the 2018 Camp fire and the 2017 Tubbs fire). In December 2017, CDI released a report that reviewed the availability and affordability of residential insurance in light of accelerating wildfire risks. The report found that insurance is becoming increasingly unaffordable and unavailable in wildland-urban interface areas, and recommends measures such as risk mitigation premium credits and required offer of insurance when specific fire mitigation actions by homeowners is documented. The 2020 wildfire season, ongoing as of the date of this publication, is anticipated to far exceed prior records for total number and size of wildfires.

135 Lara, Chapter 614, Statutes of 2018; Cal. Ins. Code § 12922.5; see CDI, “Climate Smart Insurance Products Search” (webpage), available at https://interactive.web.insurance.ca.gov/apex_extprd/FPw=1221. The database draws on work by Dr. Evan Mills, a leading researcher at the intersection of climate change and insurance.
PART TWO:

RECOMMENDATIONS

The Fiduciary Duty in the 21st Century programme has concluded that failing to consider long-term investment value drivers, which include ESG factors, is a failure of fiduciary duty, while a robust and growing body of academic and industry research has shown the relative outperformance of companies and portfolios that prudently manage material ESG risks and opportunities. Californian investors, regulators, and policymakers have advanced ESG incorporation in investment practice and policy design in notable ways. However, despite significant progress, many California-based asset owners and investment managers have yet to develop responsible investment strategies, and a broad set of finance policy and regulatory levers remain unutilized or underutilized.

Interviews with experts from the financial, regulatory, and investment communities identified a set of key challenges to greater ESG integration in investment decision-making in California, along with a range of policy recommendation to address these barriers. This section describes those challenges and then details public and private sector recommendations.

These recommendations support full ESG integration across asset classes; investor collaboration on stewardship and engagement; adopting disclosure requirements along the lines of the TCFD recommendations; using regulatory authority over certain sectors to encourage firms in those sectors to integrate ESG considerations in their investment decision-making; using state bond issuances to require disclosure of ESG impacts of programs funded by state bonds; giving retail investors the opportunity to make investments which are aligned with ESG considerations; and some will require legislation or regulation. The recommendations include those which we consider to be highest-priority actions, denoted as “should” recommendations, as well as additional options to support or expand responsible investment, denoted as “could” recommendations.

Analytical Framework for Recommendations

All state leaders seeking to increase ESG integration through existing regulatory mechanisms or new legislation should incorporate the following considerations in any steps they take:

- All leaders should clarify the distinction between approaches that are impact-based (i.e., with the core purpose of driving ESG performance, and climate change mitigation in particular, in the real economy) and those that are risk management-based (i.e., with the core purpose of managing investment performance through the integration of material ESG factors, and in particular, climate risks); clarify distinctions between environmental, social, and governance factors; acknowledge where overlap exists; and educate asset owners and investment managers about where ESG integration resides.

- All measures applied to asset holders should distinguish between the different incentives and capabilities of asset owners, active investors, and passive investors; as well as differences in asset class applicability; and account for those differences through nuanced application of requirements.

- Given the systemic risks to financial markets and the existential risks to societies posed by climate change, climate-specific environmental risks may merit distinct consideration from other ESG factors. Within climate risks, physical risks (i.e. extreme weather, sea level rise, etc.) and economic transition risks (i.e. decarbonizing energy systems) should also be considered.

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138 See, e.g., Investment Company Institute, Funds’ Use of ESG Integration and Sustainable Investing Strategies: An Introduction (July 2020), pp. 5-7 (distinguishing between “ESG inclusionary investing” that generally seeks positive sustainability outcomes, “ESG exclusionary investing” which excludes particular companies or sectors based on failure to meet sustainability criteria, and impact investing intended to generate specific ESG outcomes), available at https://www.ici.org/pdf/20_ppr_esg_integration.pdf.
I. CHALLENGES

Experts and original research identified a number of key challenges for ESG integration, including:

- **A lack of consistent, comparable, robust, and widely available ESG data** inhibits asset owners’ and asset managers’ willingness to further integrate ESG considerations into their highly data-driven decision-making and increases confusion about how and when ESG considerations are material.

- Many fiduciaries’ and pension funds’ well-established (and often legally required) focus on maximizing risk-adjusted returns causes them to limit or refrain from integrating ESG factors in their decision-making, when ESG-based decision-making is often misunderstood as requiring financial sacrifice rather than emphasizing risk management and improved risk-adjusted returns, and when many investee companies are not yet fully integrating ESG factors into their own decision-making or disclosing ESG-related issues.

- The constituent elements of ESG considerations merit a wide variety of risk-assessment and risk-mitigation measures for fiduciaries, which can require a high level of sophistication and internal capacity for investors to apply in mainstream decision-making across their entire portfolios and which may not align with existing internal management, policies, procedures, and compensation structures.

- It can be particularly challenging to assess and address uncertain economic and policy related climate transition risks, given inconsistency across jurisdictions and the potential (particularly in the US) for policy reversals by different federal administrations.

- To the extent state-level regulatory or advisory action is needed to accelerate ESG integration, in many cases the legal authority of state financial and corporate regulatory agencies to institute ESG-related requirements is limited without additional state legislation.

- The COVID-19 pandemic and resulting economic disruption have upended many institutional investors’ and regulators’ plans, including significant reductions in state budgets and portfolio values. This exogenous shock has highlighted vulnerabilities throughout the global economy while at the same time demonstrating the essential nature of ESG-based decision-making. It has also elevated calls for a green economic transition including a pandemic recovery focused on green jobs and sustainable development.

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### Climate Transition Analysis Tools

While assessing climate transition risks remains challenging, publicly available modeling tools like the Paris Agreement Capital Transition Assessment (PACTA) model provided by the PRI and 2 Degrees Investing Initiative, increasingly allow investors to better understand the transition risks facing investment portfolios. The PRI has also developed the Inevitable Policy Response Forecast Policy Scenario which allows investors to consider the impact on their investments of a delayed but abrupt and aggressive policy response to limit greenhouse gas emissions in the face of climate change.

The recommendations that follow seek to address these barriers across the following categories:

- Metrics, data-sharing, and defining ESG;
- Institutional investors;
- Corporate governance and disclosure;
- State projects, procurement, and investment;
- State financing authorities;
- Insurers and insurance regulators; and
- California’s goal of carbon neutrality by 2045.

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II. RECOMMENDATIONS

A. METRICS, DATA-SHARING, AND DEFINING ESG

- The State of California, led by the Governor or State Treasurer or State Controller, should convene a Task Force on Responsible Investment. This task force could include the Governor’s office, the Governor’s Office of Planning and Research, the Department of Finance, the State Treasurer, the State Controller, the Department of Insurance, state and county pension funds, financial industry representatives, and data- modeling and ESG experts, and could be housed at the Governor’s, Treasurer’s, or Controller’s office. The group could be charged with developing recommendations for legislative, administrative, and private sector actions for standardizing consistent, comparable, robust, and widely available ESG data, advancing and harmonizing corporate ESG reporting in the interests of investor decision-making, and furthering integration of ESG factors in investor decision-making. The task force could also develop recommendations and coordinate California’s advocacy directed to the Securities and Exchange Commission and Department of Labor on ESG-related disclosure and integration in investment decision-making, where appropriate.
• The State Treasurer or State Controller could undertake an assessment of the extent to which California state, county, and municipal pension funds, endowments, foundations, and other institutional investors are integrating ESG factors in investment decision-making. This assessment could draw on existing data compiled by PRI and other leaders in responsible investment and inform the work of the state responsible investment task force and future legislative action.

• The State Treasurer, the State Controller, the Department of Finance, and the state pension funds could undertake a campaign to educate investors, asset managers, and county and municipal pension funds on the importance of integrating ESG considerations in investment decision-making. This campaign could build on existing efforts spearheaded by CalPERS and CalSTRS and could demonstrate the extent to which ESG consideration is aligned with the discharge of fiduciary duties and does not sacrifice long-term returns.

• The California Debt and Investment Advisory Commission (CDIAC) could offer specific ESG-related technical assistance and education for local agencies and public finance professionals. CDIAC, which was created by statute in 1981 to provide technical assistance on debt issuance and public fund investments to local agencies and public finance professionals, could be an ideal entity to provide this assistance. CDIAC’s public educational program focuses on current investment topics and best practices for management of public investments based on changing market conditions and policy considerations (and has included green bonds seminars in the past), suggesting a role as an ESG information clearinghouse for local agencies potentially including county and municipal pension funds which may lack the staff time and expertise to build their own ESG programs. CDIAC could draw from the ESG experience and practices of LACERA, SFERS, CalPERS and CalSTRS in developing technical assistance.

B. INSTITUTIONAL INVESTORS

ALL INSTITUTIONAL INVESTORS

• All institutional investors should integrate material ESG factors into investment processes and decision-making to the fullest extent possible. Key steps could include:
  
  • Establishing and publishing formal policies for integrating ESG issues into investment decision-making and active ownership;
  
  • Implementing internal education and outreach efforts to ensure that fiduciaries (e.g., trustees and investment decision-makers) understand what ESG investing constitutes and what ESG factors are material;
  
  • Making public commitments to responsible investment and stewardship principles, such as signing the PRI and collaborative initiatives like SASB, CII, ICGN and joining the Investor Stewardship Group;
  
  • Making public commitments to achieving the goals of the Paris Agreement;
  
  • Participating in collaborative climate-related initiatives through networks such as Climate Action 100+; The Investor Agenda, We Are Still In, and the Ceres Investor Network on Climate Risk and Sustainability; and
  
  • Actively engaging as shareholders to drive companies to manage material ESG risks and opportunities, and vote proxies in accordance with ESG principles.

For smaller funds that do not have significant resources to devote to ESG analysis, existing networks, including those named above, offer a key opportunity for education and collaboration. Additional collaborative networks include the Intentional Endowments Network, Confluence Philanthropy, Mission Investors Exchange, CALAPRS (California Association of Public Retirement Systems) and SACRS (State Association of County Retirement Systems).


141 The Investor Stewardship Group (ISG) is “a sustained initiative to establish a framework of basic investment stewardship and corporate governance standards for U.S. institutional investor and boardroom conduct,” formed by over 60 US and international asset managers with over $31 trillion under management. In January 2018, the group launched a set of stewardship principles that require its members to evaluate the corporate governance activities of their investee companies and work alongside issuers to encourage adoption and implementation. In California, CalPERS, CalSTRS and the University California Regents Office of the Chief Investment Officer are signatories of the ISG. See www.isgframework.org for more information.

142 Launched in 2017, Climate Action 100+ is an investor-led initiative that aims to create a framework for fulfilling the Paris agreement goals and “to ensure the world’s largest corporate greenhouse gas emitters take necessary action on climate change.” The effort includes 450 investors with over $40 trillion assets under management and is coordinated by Asia Investor Group on Climate Change (AIGCC); Ceres; Investor Group on Climate Change (IGCC); Institutional Investors Group on Climate Change (IIGCC); and Principles for Responsible Investment (PRI). See www.climateaction100.org for more information.

143 The Investor Agenda, which PRI launched at the Global Climate Action Summit in 2018, brings together over 600 investors managing $37 trillion in assets to achieve the goals of the Paris Agreement, accelerate private sector investment in the low-carbon transition, and commit to improving climate-related financial reporting. The initiative focuses in four key areas: investment, corporate engagement, disclosure, and policy advocacy. See www.theinvestoragenda.org for more information.

144 We Are Still In is a movement across the United States with 3,850 signatories, including businesses, investors, universities, cities and counties, states and tribes, and religious organizations that declare they are “staying in” the Paris climate agreement regardless of federal policy. Created in June 2017, the group’s members represent over $6.2 trillion of the US economy. Several non-profit and philanthropic organisations such as Bloomberg Philanthropies, Ceres, and the Sierra Club are also involved in the initiative. See www.wearestillin.com for more information.

ALL PUBLIC AND PRIVATE PENSION FUNDS

- Public pension funds should develop governance structures that encourage better long-term and data-driven ESG integration. Such structures could include regular ESG education at the board level; requiring a minimum number of board members with ESG expertise; and linking asset manager compensation to alignment with long-term ESG objectives.

- Public pension funds should require that investment consultants and investment managers consider ESG factors in providing investment advice or investment management. The funds could make such expertise a pre-requisite to hiring and retention of at least a portion of consultants and managers, which would help make ESG expertise a standard component of investment advising and management.

- The state legislature could expand SB 964 to require TCFD-aligned reporting for all public pension funds or for those over a minimum size threshold. Covered funds could follow CalPERS’ and CalSTRS’ successful implementation of the law, using their disclosures as useful precedent. A minimum size threshold would allow smaller county and municipal funds to develop reporting capacity and could be reduced over time to incorporate smaller funds on a reasonable timeframe.

- Corporate defined contribution plans should ensure that investment strategies have robust ESG integration processes in place. Plans should ask participants whether they are interested in ESG-focused options and if so, explain available options.

- Corporate defined contribution plans could join existing networks and initiatives to improve collaboration between plan sponsors and service providers and tap economies of scale. Examples of these initiatives include the World Business Council for Sustainable Development’s “Aligning Retirement Assets” project and the Defined Contribution Institutional Investment Association’s ESG Subcommittee.

STATE PENSION FUNDS

- CalSTRS should join CalPERS in committing to transitioning the total fund to net zero greenhouse gas emissions by 2050, in line with a 1.5-degree Celsius scenario pursuant to the Paris Agreement. CalSTRS could join the UN-convened Net Zero Asset Owner Alliance and regularly report on progress, including establishing intermediate targets every five years in line with Paris Agreement Article 4.9. Doing so would send a signal to other pension funds, institutional investors, and insurers operating within California to similarly align their portfolios with the state’s climate objective.

- CalPERS and CalSTRS should adopt a more flexible, forward-looking strategic asset allocation framework that accounts for physical and transition risks. Such an approach would require a more detailed and holistic risk analysis and thematic asset allocation lens. CalPERS and CalSTRS have each worked with Mercer to undertake a total fund climate risk assessment, and can further their analysis using additional frameworks including the Inevitable Policy Response.

- CalPERS could integrate ESG considerations into its private lending program. The CalPERS Board recently authorized a private lending program and could apply ESG-related policies to the extent it is not already doing so.

COUNTY AND MUNICIPAL PENSION FUNDS

- The state legislature could amend the 1937 Act to require county pension funds to incorporate ESG considerations into their investment analysis and decision-making. To the extent such legislation would require a statutory definition of ESG, it should remain as broad as possible so as not to depart from working definitions or interfere with investment decision-making processes. The legislature could build into the statute regular review/re-authorization intervals to ensure that the ESG definition remains up-to-date and that the funds are not locked into stale or counterproductive requirements.

146 The project seeks to help companies better align defined benefit and defined contribution plan assets with overall ESG considerations. See www.wbcsd.org/Programs/Redefining-Value/Investor-decision-making/Aligning-Retirement-Assets for more information.

147 The subcommittee seeks to “encourage and promote research, dialogue, education, thought leadership and best practices related to the integration of [ESG] factors in defined contribution investments.” See https://dcia.org/page/ESGSubcommittee for more information.

148 The Inevitable Policy Response, commissioned by the PRI, forecasts the climate-related policies that will be implemented out to 2050, and quantifies the impact of these policies on the real economy, financial markets and asset class valuations. PRI is designed to help investors enhance portfolio resilience to climate transition risk. See https://www.unpri.org/inevitable-policy-response/what-is-the-inevitable-policy-response/4787.article for more information.

The state legislature could enact legislation requiring county pension funds to develop ESG investment policies but leave the funds free to make specific decisions appropriate for their own priorities. This requirement would offer a potentially less demanding, more flexible alternative for often under-resourced county funds. The Illinois Sustainable Investing Act, which directs public agencies to “prudently integrate” into their investment decision-making sustainability factors including corporate governance, environmental, social and human capital, and innovation factors; and directs public agencies to develop sustainable investment policies covering these same factors as prudent and material, could serve as precedent.

The state legislature could enact legislation requiring county pension funds to begin ESG investment strategy reporting (and/or extend application of SB 964 to require county pension funds to begin TCFD-aligned climate risk reporting). The legislature could take this action as a minimum first step toward greater ESG strategy development and/or climate risk reporting, as an alternative to or in advance of the two prior recommendations. The legislature could phase in the requirement, starting with larger counties that have greater capacity and phasing in smaller counties over time.

The State Association of County Retirement Systems (SACRS) should develop ESG educational material, programming and knowledge-sharing opportunities for county pension plans. While there is no question that ESG factors are material matters to be considered in the discharge of fiduciary duties, they fall outside many funds’ and fund managers’ traditional understanding of risk mitigation and return maximization. SACRS has a unique and significant opportunity to leverage its education and convening capacity to help drive California county retirement plans to improve their risk management and investment processes through ESG integration.

Foundations and Endowments

The state legislature could amend the state tax code to make private colleges’ and universities’ tax-exempt status contingent upon their preparation of reports on ESG consideration and/or disclosure of climate risks facing their investment portfolios. These reports could follow TCFD standards for disclosure of climate risk and could incorporate SASB metrics for other sustainability criteria. The legislature could include a minimum endowment threshold to ensure that the requirements apply only to institutions with robust capacity to conduct substantive review and reporting (and/or a delayed start date to provide institutions an opportunity to prepare).

Retail Investors

The state legislature should enact legislation directing financial advisors (including investment advisors, broker-dealers, and others) that are licensed and regulated by the Department of Business Oversight to ask retail investors if they have a preference for investments that consider ESG factors and to offer them ESG-aligned investment opportunities and provide materials explaining how their investment strategies incorporate material ESG factors. The European Commission’s Action Plan on Financing Sustainable Growth and proposed regulations will require investment firms and funds, mutual funds, and insurers to inquire about and incorporate clients’ ESG preferences when making investment recommendations. These initiatives could serve as a template for California. DBO could require financial advisors to provide investors with educational materials on ESG factors and materiality before making these inquiries in order to properly inform their decision-making.

CalSavers could affirmatively ask new members at inception and existing members at least annually whether responsible investment is a priority and, if so, point them to the plan’s ESG-focused fund. Asking members their preference for responsible investment will enable CalSavers to provide options about which members may not be aware and assist in making sure that member investment choices are aligned with their preference to invest responsibly. CalSavers could provide members with educational materials on ESG investing and materiality before making these inquiries in order to properly inform their decision-making.

The state legislature could enact legislation requiring the Department of Insurance to require agents it licenses who are transacting annuities to ask, as a part of their determination of the suitability of the annuity for the customer, whether the customer prefers investing in an annuity whose issuer integrates consideration of ESG factors in making investment decisions.
C. CORPORATE GOVERNANCE AND DISCLOSURE

- The state legislature should mandate climate risk disclosure or TCFD reporting for all publicly traded companies incorporated or headquartered in California. The legislature could look to Article 173 of the French Energy Transition Law, which requires publicly traded companies to disclose the financial risks they face due to climate change, the measures adopted to reduce those risks, and the environmental impact of company activities\textsuperscript{153}. These disclosures will allow investors to have consistent data with which to assess climate risk exposure in investee companies, and will significantly improve the quality of climate risk information available throughout the economy. Likewise, institutional investors should engage with investee companies to encourage disclosure of climate risks under the TCFD framework.

- The state legislature could require all publicly traded companies incorporated in or headquartered in California to disclose ESG factors using the SASB or other ESG reporting framework. Investors’ ability to incorporate ESG factors in investment analysis is substantially impeded where corporations do not disclose their management of ESG risks and opportunities material to their business. Requiring ESG disclosure by corporations would help those who voluntarily disclose to avoid any competitive disadvantage (from revealing potential ESG-related risks where competitors do not) and provide information needed for investors to make informed investment decisions. It is also consistent with the 2018 petition to the SEC for a rulemaking mandating ESG-related disclosure, which CalPERS and dozens of other institutional investors signed\textsuperscript{154}. (The legislature could impose this requirement only to the extent federal rulemaking or law in this area does not preempt state-level action.)

- The state legislature could enact a requirement that all publicly traded companies incorporated or headquartered in California include a minimum number of board members with climate risk expertise. Following the example of Senate Bill 826, which requires California-headquartered publicly held corporations to include a minimum number of women on their boards, this requirement would ensure that climate risk considerations are given a minimum level of consideration at the board level. In connection with these substantive requirements, the legislature could require companies to annually report the composition and background of their boards, to facilitate assessment of their ESG expertise. This would also follow the precedent set by CalPERS and CalSTRS, both of which updated their corporate governance policies to add climate risk management to the portfolio of expertise expected of investee company boards of directors\textsuperscript{155}.

- The state legislature should direct mandatory climate risk stress testing for financial institutions (state-chartered banks, credit unions, mortgage lenders, and others) under the jurisdiction of the Department of Business Oversight. These stress tests could follow the example of the Bank of England’s 2021 Biennial Exploratory Scenario exercise, which includes a climate risk stress test for banks and insurers under the jurisdiction of the Bank of England\textsuperscript{156}. Or, the stress tests could follow the Network for Greening the Financial System’s recently released recommendations for financial institution stress testing\textsuperscript{157}. At a minimum, the legislature could authorize a stress test pilot program with certain of the state-chartered banks DBO oversees.

- The state legislature could direct the Public Utilities Commission to require all regulated entities to integrate ESG into their decision-making and investment analysis and/or to assess and disclose climate risks or undertake TCFD reporting. The investor-owned utility sector is uniquely poised to implement and benefit from ESG integration: many industry members are responsible for significant long-term investments in infrastructure, they own physical assets that are especially vulnerable to physical impacts of climate change, and they have capital and reserves which they invest. These requirements could build on a recent CPUC proposal to require investor-owned utilities to assess climate-related risks to safe and reliable energy service\textsuperscript{158}. And the CPUC has especially strong regulatory authority over entities within their jurisdiction, which are subject to strict licensing requirements.

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\textsuperscript{155} See Emilie Mazzaccarini, supra.


• The Public Utilities Commission could require licensed investor-owned utilities to report and disclose annually whether and to what extent they are integrating ESG factors into their investment decision-making. Investor-owned utilities are significant asset owners and investors (including physical assets and pension obligations); the value of their investments will be affected by market-wide shifts due to government action in the face of climate change. These disclosures would help utilities compare their performance against that of peers, and would allow the commission and investors to have better insights into the ESG-related risks facing investor owned utilities and how they are considering and responding to them, including climate change-related physical and transition risks.

D. STATE PROJECTS, PROCUREMENT, AND INVESTMENT
Each of these requirements would align with Governor Newsom’s Executive Order N-19-19’s state directives on investment and procurement:

• The state legislature could require the Department of General Services to create an ESG and climate risk disclosure certification process for all companies that do business with the state. The requirements should include a minimum company size or revenue threshold, at least during a phase-in period, to ensure that covered entities have the capacity to undertake substantive compliance. DGS could consult with the State Treasurer, State Controller, and Department of Business Oversight on the structure and content of the disclosure requirements, which could align with (or adopt) TCFD standards for climate risk.

• The state legislature could bar state procuring entities from doing business with entities that fail to satisfy climate risk disclosure requirements for contracts over a minimum threshold size, unless no other practicable alternative is available. Requirements could apply first to DGS, Caltrans, and other agencies making direct investments in or procurement of infrastructure and equipment, which typically involve larger contracts and investments that might directly relate to greenhouse gas emissions and climate resilience. The state’s environmentally preferable purchasing requirements could serve as useful precedent.

• The state legislature could require state agencies to assess the ESG performance of all projects they implement under state-funded programs. This assessment process would include establishing a statewide framework to determine the ESG performance of projects (or selecting an existing framework).

E. STATE FINANCING AUTHORITIES
• The state legislature could write future bond acts to require state agencies to assess and disclose the ESG performance of the projects that are funded under the programs funded by the bond. These assessments and disclosures would allow state leaders to assess the ESG performance of state bond funds and help state agencies build comparative understanding of the impacts and benefits of various projects. Bond investors would be able to ascertain the ESG factors associated with state bonds to aid in their investment decision-making. The legislation could include a process for developing an agreed set of standards for what constitutes an “ESG-compliant” project, both to inform and standardize the state agency assessments and to assist local agencies that offer projects for financing under these bonds know how to craft compliant projects. Any such requirements should include some flexibility to reflect the varying capacity of smaller, more economically limited local governments to integrate ESG factors into their projects.

• The State Treasurer, Controller, and Director of Finance should leverage their positions on the boards of state financing authorities to add ESG-related disclosure requirements for state financing. As described earlier in this report, a range of state entities provide or administer financing programs for particular public purposes. As the leaders of these various entities’ boards, the State Treasurer, Controller, and Director of Finance could ask the boards to begin to integrate ESG and climate risk disclosure into financing decisions, although enabling legislation may be required:

  • The California Pollution Control Financing Authority could institute ESG and climate risk disclosure requirements for waste and recycling projects that receive tax-exempt financing.
  • The Tax Credit Allocation Committee could apply ESG and climate risk disclosure requirements to project developers seeking federal 4% and 9% tax credits for low-income housing.
  • The California Debt Limit Allocation Committee could institute ESG and climate risk disclosure requirements for all low-income housing and waste facility projects it finances.
  • The California Health Facilities Financing Authority could institute ESG and climate risk disclosure requirements for any bonds or loans that go toward new public and non-profit health facility construction, or for any projects receiving grant funding.

160 See Cal. Const. Art. XVI.
• The California School Finance Authority could institute ESG and climate risk disclosure requirements for newly constructed school or community college facilities funded by any bonds or loans it facilitates.

• The California Infrastructure and Economic Development Bank could impose ESG disclosure requirements on all projects that receive tax-exempt bond funding or loans.

• In addition, CDIAC could offer statewide technical assistance and guidance to state and local officials on integrating ESG considerations or screens into bond issuances and other financing programs related to any of these authorities and could collect and publish information on compliance with these ESG-related initiatives.

F. INSURANCE INDUSTRY

• The Department of Insurance should undertake climate risk stress testing of insurer underwriting and investment portfolios, annually conduct climate risk scenario analysis of insurers’ investment portfolios, and require insurers to identify, analyze and address climate risks to their underwriting and investment portfolios. The Bank of England’s climate stress testing of banks and insurers, as well as CDI’s own Climate Risk Carbon Initiative, could serve as models.161

• The Department of Insurance could partner with private sector leaders and academic institutions to educate other insurance commissioners and insurers on the importance of ESG considerations, and climate risk in particular, throughout the sector. Given its leadership position within the National Association of Insurance Commissioners and the size of California’s insurance market, the Department of Insurance has significant ability to drive national action. And given the particular vulnerability of the insurance sector to climate risks—including physical, transition, and liability risks—the sector stands to benefit most from a better understanding of ESG integration.162

• The Department of Insurance could require insurance companies to report and disclose annually whether and to what extent they are integrating ESG factors into their investment decision-making.

• The state legislature could direct the Department of Insurance to require insurance companies licensed to sell insurance in California to integrate ESG factors into their investment decision-making and analysis and/or to assess and disclose physical climate risks or undertake TCFD reporting. Much like the Public Utilities Commission, the Department of Insurance regulates entities that are particularly vulnerable to climate risks and are especially linked to in-state operations and physical assets.

• California insurers should integrate ESG considerations into their operations and investment decision-making. Insurers can take a number of discrete steps to achieve this integration, including:
  • Signing and implement the UN Principles for Sustainable Insurance;
  • Preparing and releasing climate risk disclosure reports under the TCFD framework;
  • Undertaking climate risk stress testing for underwriting and investment portfolios; and
  • Sharing wildfire risk-related information to improve coverage and risk assessment, as recommended in CDI’s 2017 Wildfire Availability and Affordability Report.163

• The Department of Insurance could continue its leadership in climate risk disclosure and assessment. Potential actions include:
  • Continuing to administer and require insurers to provide responses annually to the NAIC Climate Risk Disclosure Survey;
  • Requiring insurers to prepare public climate risk disclosure reports consistent with the recommendations of the TCFD;
  • Continuing to implement and expanding CDI’s Climate Risk Carbon Initiative;
  • Requiring insurers to determine and report annually their Scope 1 (direct), Scope 2 (indirect from energy consumption), and Scope 3 (indirect from all other activities) greenhouse emissions, including in Scope 3 all “financed emissions” associated with assets in which insurers are investing;
  • Engaging with other regulators and insurers through initiatives such as the Sustainable Insurance Forum to improve climate risk best practices; and
  • Requiring disclosure of insurers’ governing board diversity.

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162 See Mills et al., Trial by Fire, supra.

163 CDI, Availability and Affordability of Coverage for Wildfire Loss, supra.
G. CALIFORNIA’S GOAL OF CARBON NEUTRALITY BY 2045

- The state legislature could codify via statute Governor Brown’s executive order on carbon neutrality by 2045 to strengthen the legal force of the mandate. The current executive order helps direct state agency policy implementing California’s climate programs. But legislation mandating the same goal could potentially enable stronger regulatory action and help inoculate agency actions from legal challenges.

- The state legislature could strengthen and extend the cap-and-trade program. A predictable, long-term, and economy-wide carbon market will be key to complete integration of climate risk across all investor and corporate sectors, through both the continued implementation of a price on carbon and the generation of essential data on the economy’s management of emission limitations. By extending authorization for the cap-and-trade program beyond 2030, the state legislature could ensure that market actors are able to conduct long-term planning on the basis of a stable carbon market. And while the program may not alone be sufficient to meet the state’s greenhouse gas emissions reduction targets, the legislature could direct the California Air Resources Board to review allowance banking, offsetting, and price floor regulations to ensure the market accurately reflects the physical and economic risks of carbon-intensive activities going forward.

- The state legislature could expand the green bond market in California through recommendations outlined in the State Treasurer’s Green Bonds Report. In 2017, State Treasurer John Chiang identified a public infrastructure gap of more than $350 billion over ten years. As climate-related physical risks including wildfires, sea level rise, and extreme heat grow in scale and complexity, it will become increasingly important for this infrastructure to be climate risk-resilient, and green bonds may play a significant role in funding this infrastructure and facilitating the transition to a low-carbon economy. The state legislature could enact the recommendations laid out in the Treasurer’s Green Bonds Volume 2 report—such as creating a green bond-focused program within the California I-Bank or directing another of the state infrastructure financing authorities to facilitate pooling of local green issuances—to support the green bond market while addressing urgent infrastructure needs.

- The state legislature could require California companies that have publicly committed to carbon neutrality to file decarbonization plans with the state. As a growing number of companies, including some based in California, have made public commitments to achieving carbon neutrality by a certain date, it is important for investors to be able to assess and compare these commitments as part of their broader ESG integration efforts. The state legislature could require these companies to file their carbon neutrality plans and commitments with the Department of Business Oversight, for tracking and publication on a DBO website. (The legislature would allow companies to file and update these plans in whatever form they currently exist, in order to avoid unwanted burdens or discouragement of companies making positive commitments.) This resource would allow investors and other companies to analyze the plans and provide a valuable informational resource to state regulators.

CONCLUSION

California and Californians have long been leaders in enacting laws, policies, and programs and undertaking private sector practices and initiatives to promote a more sustainable state. California is well positioned to adopt the recommendations in this Roadmap, with over 104 signatories to the PRI operating in the fifth largest economy in the world. Leaders in the state legislature, executive branch, regulatory agencies, and pension funds, among others, have already begun in various ways to take actions to further integrate ESG considerations in investment decision-making. The recommendations build on existing efforts by California leaders, from landmark emission reduction programs to state pension funds’ leadership in incorporating ESG considerations in investment decision-making.

The recommendations in this Roadmap reflect a far-reaching agenda for California policymakers, regulators, pension funds, insurers, foundations, colleges and universities, other asset owners, investment managers, financial institutions, and corporations to advance ESG integration in investment decision-making, corporate governance, state investment and procurement, and throughout the state’s economy. At a time when public and private budgets are experiencing unprecedented strain and uncertainty, these recommendations may appear especially ambitious. Yet the COVID-19 pandemic, renewed calls for racial and social justice, and the accelerating climate crisis all highlight the need for investors and policymakers to ensure a sustainable economy, one that rewards long-term, responsible investors. And they underscore the fact that fiduciary duties compel investors to consider material ESG factors in order to ensure the long-term health and sustainability of the assets they own or manage.
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About CLEE and the Climate Risk Initiative
UC Berkeley School of Law’s Center for Law, Energy & the Environment (CLEE) channels the expertise and creativity of the Berkeley Law community into pragmatic policy solutions to environmental and energy challenges. We work with government, business, and the non-profit sector to help solve urgent problems that require innovative and often interdisciplinary approaches. Drawing on the combined expertise of faculty, staff, and students across UC Berkeley, we strive to translate empirical findings into smart public policy solutions that better our environmental and energy governance systems. The Climate Risk Initiative at CLEE, led by former California Insurance Commissioner Dave Jones, focuses on the risks posed by climate change to the insurance and other financial sectors and how public policy can help these sectors better identify, evaluate, and address that risk.

About the PRI
The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance issues and to support signatories in integrating these issues into investment and ownership decisions. The six Principles were developed by investors and are supported by the UN. They have more than 2,300 signatories from over 50 countries representing more than USD 85 trillion of assets. They are voluntary and aspirational, offering a menu of possible actions for incorporating ESG issues into investment practices. In implementing the Principles, signatories contribute to developing a more sustainable global financial system. For more information, see www.unpri.org.

About UNEP FI
The United Nations Environment Programme Finance Initiative (UNEP FI) is a unique global partnership between the United Nations Environment Programme (UNEP) and the global financial sector founded in 1992. UNEP FI works closely with over 200 financial institutions who have signed the UNEP FI Statements as well as a range of partner organizations to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and realize the adoption of best environmental and sustainability practice at all levels of financial institution operations. For more information, see www.unepfi.org.

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The Generation Foundation
The Generation Foundation (the ‘Foundation’) was part of the original vision of Generation Investment Management LLP (‘Generation’) since the firm was founded in 2004. The Foundation was established alongside Generation in order to strengthen the case for Sustainable Capitalism. Our strategy in pursuit of this vision is to mobilise asset owners, asset managers, companies and other key participants in financial markets in support of the business case for Sustainable Capitalism. In our effort to accelerate the transition to a more sustainable form of capitalism, we primarily use a partnership model to collaborate with individuals, organisations and institutions across sectors and geographies and provide catalytic capital when appropriate. In addition, the Foundation publishes in-house research, gives select grants related to the field of Sustainable Capitalism, engages with our local communities and supports a gift matching programme for the employees of Generation. All of the activities of the Foundation, a not-for-profit entity, are funded by a distribution of Generation’s annual profitability. While Generation Foundation is a financial supporter of this project, this report is published by PRI and UNEP FI and the discussion and recommendations in this report do not necessarily represent the views of the Generation Foundation, unless expressly stated otherwise.