



Task Force on Climate-Related Financial Disclosure

2017 Pax World Funds Report

INTRODUCTION

Climate change is having and will continue to have major impacts on the world's citizens, economies, financial markets, companies, and ecosystems. However, it is a problem that we can solve, and solving it means reducing human emissions of greenhouse gases.

We support the goals of the Paris Agreement, and we acknowledge that it is a necessary but insufficient step to avoid catastrophic warming (beyond 2°C). One of the most impactful solutions is to find ways to produce and use energy and electricity in ways that do not involve the combustion of fossil fuels. There are other actions that can contribute to the solution as well, and the range of possibilities is expanding.

In addition to reducing emissions, we must also adapt to the changes already underway. Those changes include increasingly severe weather and incidence of tropical storms, floods, droughts and heat waves, and rising sea levels.

As an investor, we have a positive role to play in both mitigation of and adaptation to climate change. Pax World Fund's primary influence has been, and will continue to be, its investments: as the manager of the oldest SRI fund in the United States, and one of the first to formally embrace sustainable investing, Pax has applied environmental criteria to its investment portfolios for over four and a half

decades. Our environmental analysis, altogether with our broader sustainability criteria, is constantly updated and refined to adapt to new challenges in ways that help to make the world more sustainable. In addition, Pax uses shareholder engagement, proxy voting and investor coalitions to broaden our reach in encouraging companies, governments, and investors to take steps to minimize environmental impact and avoid catastrophic climate change.

We also believe that, even as a small company with low carbon intensity, Pax can serve as a positive example to other companies interested in addressing their own carbon footprints. We have for several years tracked our greenhouse gas emissions, including travel emissions as well as electricity and space conditioning, and purchased offsets to make Pax a carbon-neutral company.

GOVERNANCE OF CLIMATE-RELATED FINANCIAL DISCLOSURE AT PAX

All of the actions mentioned above are shared with and overseen by Pax's most senior governance groups, including management at all levels and the Board of Trustees.

The Role of Management: Pax Operations

- Greenhouse Gas Emissions: Pax is not a big emitter; our main emissions consist of space conditioning for our headquarters and electricity use. Senior management at Pax, including the President, SVP for Sustainable Investing, and VP for Sustainable Investing oversees our own efforts to manage and offset Pax's emissions. Pax has calculated its GHG emissions, including estimated travel- and commuting-related emissions of staff, and purchased carbon offsets sufficient to make Pax a carbon-neutral firm, since 2005. Pax joined the Chicago Climate Exchange (CCX) in February 2005 and used CCX to offset office and travel related emissions in 2005 and 2006. Since 2006, we have purchased offsets for both office and travel related emissions from sellers that provide verified offsets, including Native Energy and Bonneville Environmental Foundation. For more information, please see Pax World Fund's Impact Report.
- **Business Continuity Plan:** Management at Pax monitors all business risks on an ongoing basis, and the matrix of risks is shared with the management committee at monthly meetings. This risk matrix includes business continuity plans, and as such that includes the risks of severe weather compromising business operations in Portsmouth, NH, our principal place of business. Pax has a Business Continuity Plan that provides for continued operation of our funds even if our primary location is shut down, and we have backup records facilities at two locations, Rochester, New York, and Las Vegas, Nevada, that provide for records maintenance at locations that are not vulnerable to coastal storms or sea level rise, as Portsmouth is.

The Role of Management: Pax Funds

Portfolio Risks: Senior management is also responsible for assuring that all environmental, social and governance criteria are appropriately integrated into portfolio construction and management for each fund. This includes the risks and opportunities associated with climate change. As every one of our funds integrates ESG criteria, it is fair to say that every fund at Pax at least avoids companies considered laggards in climate change. Pax currently offers two funds that expect to be fossil fuel-free based on their investment strategies, and all of our funds avoid investing in companies significantly involved in mining coal or oil from tar sands, or utilities whose dependence on coal exceeds the relevant national average. See more detailed discussion on page four in the section on products. The President, CIO, Senior Vice President for Sustainable Investing, and Vice President for Sustainable Investing assess the environmental,

social and governance criteria applied to each fund, and assess the degree to which these criteria affect fund performance and risk characteristics.

The Role of the Board

The board of trustees of the Pax World Funds provides oversight for all integration of environmental, social and governance factors, including climate risks and opportunities. The Governance and Compliance Committee receives detailed reports each quarter, written and verbal, from the Pax Sustainability Research team regarding the funds' integration of all ESG factors, including climate change factors; company and public policy engagements; and Pax's own operations' sustainability and impact reporting. The written reports also list the companies and other securities evaluated during the previous quarter by the Pax Sustainability Research team—and the decisions (pass or fail) made—and the Committee can question staff on those decisions.

The board of trustees is also responsible for oversight of all Pax World Funds, and receives detailed reports each quarter on fund performance. The impact on fund performance and characteristics attributable to decisions made by the Sustainability Research team are included in that oversight. The trustees are informed when any sustainability criteria are altered, and kept informed of ESG rating and scoring processes and changes. Finally, the board and Governance and Compliance Committee regularly review Pax World Fund's proxy voting guidelines, and approve any changes to those guidelines, which include provisions relating to climate change and other sustainability factors.

Climate Risks and Opportunities in the Mutual Fund Business

Pax believes that climate change presents both significant risks and opportunities in investment management. We believe that these risks and opportunities differ for different sectors and industries, and even among companies in the same peer groups, and that careful evaluation is needed at the company, sub-industry, industry, and sector level in order to price those risks and opportunities correctly. We do not believe that the market does this yet, but with rapidly growing interest in finance in the impacts of climate change, it is likely that investment managers will become more adept at correctly pricing climate risks and opportunities in the future.

Unlike many investors, we do not see climate change solely as a long-term factor. The impacts of climate change, and the opportunities and risks associated with mitigation and adaptation, will persist for the forseeable future, due to the

persistence in the atmosphere of greenhouse gases ranging from a few years to decades, centuries and even millennia. While the risks persist and grow, so long as we continue to emit greenhouse gases, the impacts are already occurring. The record hurricane season of 2017 and Europe's Lucifer heat wave of 2017 are just two manifestations of recent

events that are significantly attributable to climate change. Thus, we see climate risk as something that confronts us in the short, medium and long terms, and the only question is how great those risks will be in the future, depending on how successful we are at limiting global emissions of greenhouse gases.

CLIMATE RISK

We categorize company and portfolio risks from climate change as follows:

TYPE OF RISK	DESCRIPTION	IMPACT
Regulatory Risk	Regulatory risk arises from governmental action (national, state, local) to reduce emissions of greenhouse gases. Examples: Regional Greenhouse Gas Initiative (RGGI); British Columbia and Sweden carbon tax; cap and trade systems and carbon markets, such as the EU Emissions Trading System.	Primarily on the largest emitters: electric utilities, materials production, energy.
Physical Risk	Impacts of increasingly severe weather such as tropical cyclones, heat waves, floods, fires and droughts; sea level rise; ocean acidification; geographic expansion of pests and diseases.	Insurance and reinsurance industries. Other risks depend on the geographic location and business models of individual businesses. Can also ripple through supply chains through availability of inputs and price volatility.
Reputational Risk	Public perception of a company/industry reputation may be positive or negative based on its contribution to climate change and mitigation activities.	Risks primarily to large emitters. Opportunities can apply to any company, depending on what actions it takes to reduce emissions or contribute to low carbon economic transition.
Litigation	Companies that contribute to climate change may be subject to lawsuits.	Risks primarily to large emitters.
Competitiveness	Products may gain or lose popularity based on their contribution to low-carbon economic transition; companies slow to respond to climate risks and opportunities may lose competitiveness compared with peers.	Impacts are diffused across sectors; may be concentrated in companies/industries with energy-intensive products and in subindustries that produce or sell green, renewable or energy-efficient products and services.
Credit Risk	Companies and other issuers may face higher costs of capital due to exposure to climate risks.	Municipal bond and sovereign bond credit ratings include resilience to climate change.

These risk and opportunity factors are included in Pax's sustainability analysis for our actively managed funds and one of our passively managed funds. The Pax Ellevate Global Women's Leadership Fund does not use climate change criteria, as it is aimed at investing in companies that invest in women in leadership, except insofar as it avoids ESG laggards. See the Products section on page 4 for a deeper discussion of how these risks are incorporated into each fund.

Laggards are identified as companies within the MSCI World Index that receive an Intangible Value Assessment rating of CCC from MSCI. In some cases, these low scores may be largely attributable to climate-related risks.

MANAGING CLIMATE RISKS **AND OPPORTUNITIES**

Pax believes that the best way to manage the risks and opportunities of climate change in investment funds is to recognize all forms of risk and work to find ways to price them appropriately. The same applies to opportunities. Both of these must be integrated with financial and other environmental, social and governance analysis.

Products

Our funds use different analytical disciplines, and we have tailored our analysis of climate risks to fit those disciplines. For Pax actively managed equity funds, we use a variety of climate risk and opportunity factors that are compatible with those funds' fundamental, bottom-up financial disciplines. We also benchmark all the actively managed funds for which sufficient data exist to make benchmarking useful; that, for the moment, excludes the Pax Small Cap Fund and the Pax High Yield Bond Fund. Our two ESG Beta Funds are smart beta strategies integrating our proprietary sustainability score with financial factors, and part of that score includes climate risk. Our Pax Ellevate Global Women's Leadership Fund is a smart beta strategy focused on gender leadership, and except for excluding companies in MSCI EAFE with the lowest sustainability scores, it does not incorporate climate risk. Our Pax MSCI EAGE ESG Leaders Index Fund is a specialty index focused on the

more sustainable names in the MSCI EAFE Index2, and climate risk is part of the set of criteria MSCI uses to select constituents for that Index.

For our two ESG Beta funds, we use both portfolio benchmarking and portfolio decarbonization, as well as the climate risk and opportunity factors as part of our ESG quantitative rating method incorporated into portfolio construction. The MSCI EAFE ESG Leaders Index³, which the Pax MSCI EAFE ESG Leaders Index Fund tracks, is constructed by MSCI, and uses MSCI's climate risk and opportunity factors in scoring. Our Pax Ellevate Global Women's Leadership Fund uses a gender-based smart beta strategy focused on women's leadership, and uses no climate related criteria. The table below explains those criteria in greater detail. Note that this table includes only criteria related to climate change and does not include other ESG criteria (including avoidance criteria).

Note that Pax uses outside ESG data providers, currently including MSCI and Sustainalytics, which provide information included in the Climate Risk Criteria section, along with ratings. Pax at times modifies those ratings or weights to create our own ESG scores. The weights and importance we give to climate factors varies by subindustry, industry and sector, based on how material a risk the specific factor poses.

FUND	AVOIDANCE CRITERIA	CLIMATE RISK CRITERIA	CLIMATE OPPORTUNITIES	QUANTITATIVE METRICS
Pax Large Cap Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	Carbon benchmarking
Pax Mid Cap Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	Carbon benchmarking
Pax Small Cap Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	None

The MSCI EAFE (Europe, Australasia, Far East) Index is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The MSCI EAFE Index consists of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. One cannot invest directly in an index.

The MSCI EAFE ESG Leaders Index is designed to measure the performance of equity securities of issuers of developed countries around the world excluding the U.S. and Canada that have high Environmental, Social and Governance (ESG) ratings relative to their sector and industry peers, as rated by MSCI ESG Research annually. One cannot invest directly in an index.

Pax ESG Beta Quality Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	Carbon benchmarking, portfolio decarbonization
Pax ESG Beta Dividend Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	Carbon benchmarking, portfolio decarbonization
Pax MSCI EAFE ESG Leaders Index Fund	None	Climate risk factors	Climate opportunity factors	Carbon benchmarking
Pax Ellevate Global Women's Leadership Fund	Avoids companies with a MSCI IVA Ratings of CCC	Avoids ESG laggards (CCC rated by MSCI)	No specific criteria	None
Pax Global Environmental Markets Fund	The fund avoids investing in companies that are significantly involved in the extraction and/or refining of fossil fuels.	Climate risk factors	Invests in companies whose businesses and technologies focus on environmental markets, including alternative energy and energy efficiency; water infrastructure technologies and pollution control; environmental support services and waste management technologies; and sustainable food, agriculture and forestry.	Carbon benchmarking
Pax Core Bond Fund	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	The fund seeks to invest up to 10%-30% of its assets in impact bonds (including green bonds), many of which include funding for projects or companies contributing to the low-carbon economic transition.	None
Pax High Yield Bond Fund*	Companies significantly involved in the mining and production of coal, oil from oil sands, and utilities whose dependence on coal exceeds the relevant national average.	Climate risk factors	Climate opportunity factors	None

^{*}Subject to data availability. For the most part, large cap companies in developed markets disclose information about emissions and operations sufficient for all or most elements to be included in analysis.

Explanation of Terms

TERM	EXPLANATION
Climate risk factors	Includes the following variables. Weights vary by subindustry, industry, and sector; may be tracked within companies by geography and business segment. All are judged relative to peer group. Absolute emissions (scope 1, 2, and 3, as available) Emissions trends GHG emissions intensity GHG emissions intensity trends Supply chain emissions intensity Exposure to geographies vulnerable to climate change impacts Controversies related to any climate variable. Responsiveness to CDP (Carbon Disclosure Project) Emissions reduction targets Use of renewable energy Energy mix and carbon intensity of energy mix Fleet emissions average Fleet emissions trends
Climate opportunity factors	 Targets for use of renewable energy Use of environmental standards in lending and credit
Carbon benchmarking	Comparison of a portfolio's carbon intensity compared with that of the passive benchmark.
Portfolio decarbonization	Management of portfolio carbon intensity to a specified fraction of the carbon intensity of the passive benchmark.

Climate Criteria: Linkages to Risk

Avoidance criteria: The largest contributor to greenhouse gas emissions is the combustion of fossil fuels (coal, oil and natural gas). Globally, around 72% of all GHG emissions are related to energy, which includes energy used to produce electricity and heat, energy for manufacturing and construction, transportation, other fuel combustion and fugitive emissions.4 Fossil fuels vary in terms of carbon intensity, with coal being the most carbon intensive, followed by (in order) oil and gas. Within oil, the most carbon-intensive segment of the oil business is oil from the oil sands (also known as tar sands), which is estimated to be 20% more carbon-intensive than oil produced by conventional

means.⁵ Pax has since 2012 avoided investing in companies significantly involved in mining coal or oil from tar sands, or utilities whose dependence on coal exceeds the relevant national average. Types of risk these factors pertain to: regulatory risk, litigation risk, reputational risk, and credit risk.

GHG emissions: this includes absolute emissions, emissions intensity (GHG emissions, on carbon equivalent basis,6 per dollar of revenue), trends in absolute emissions and emissions intensity, and exposure to geographies by degree of likelihood that they will regulate GHG emissions. These include Scopes 1, 2, and 3,7 subject in all cases to data availability. Where emissions data are not reported, estimates

Center for Climate and Energy Solutions, "Global Emissions," https://www.c2es.org/content/international-emissions/.

See, for example, Lisa Song, "Exclusive Interview: Why Tar Sands Oil is More Polluting and Why It Matters," Inside Climate News, May 22, 2012, https:// insideclimatenews.org/news/20120522/adam-brandt-tar-oil-sands-canada-europe-low-carbon-fuel-directive-greenhouse-gases; and Pembina Institute, "Clearing the air on oilsands emissions: The facts about greenhouse gas pollution from oilsands development," November 2012, https://www.pembina.org/ reports/clearing-the-air-climate-oilsands.pdf.

There are several greenhouse gases, and they have different impacts on the degree to which the atmosphere traps heat, known as radiative forcing, or global warming potential. By definition, carbon dioxide, the most prevalent greenhouse gas, has radiative forcing defined as 1; all other GHG emissions are measured relative to CO2, and emissions of those gases are converted to an amount of carbon dioxide that would be needed to match the global warming potential of each gas.

Scope 1 includes emissions from sources owned or controlled by the enterprise (company, agency, municipality, etc.). Scope 2 includes indirect emissions resulting from the consumption of purchased electricity, heat or steam. Scope 3 includes all other indirect emissions, such as transport-related activities in vehicles not owned by the enterprise or outsourced activities.

are provided. We find the estimates only marginally useful in assessing risk, as the same emissions factors (intensity, which determines overall emissions) apply to all companies with the same or similar lines of business, making it possible to distinguish emissions levels between peer groups, but not within them. Types of risk that these factors pertain to: regulatory risk, litigation risk, reputational risk, and credit risk.

- Geographies vulnerable to climate change impact: This
 assesses businesses' exposure to and management
 of risks based on their location in geographies with
 specific vulnerabilities to the physical impacts of climate
 change. For example, low-lying coastal areas are more
 vulnerable than others to the effects of tropical cyclone
 activity and sea level rise; certain regions are forecast to
 become drier and hotter and are therefore more
 vulnerable to droughts, heatwaves and wildfires. Types
 of risk that these factors pertain to: physical risk, credit
 risk.
- Supply chain variables: This captures both the carbon intensity of the supply chain, or the vulnerability of companies supply chains to possible GHG emission regulation, as well as the possibility of supply chain disruption as a result of the physical impacts of climate change. Types of risk these factors pertain to: regulatory, litigation, competitiveness, and physical risks.
- Carbon benchmarking: Pax carbon benchmarks each of its funds, where possible, to their passive benchmarks. This is both possible and informative for funds that are primarily in developed markets and large cap. For other funds, it may be possible to carbon benchmark some of the securities, but unless a majority of the assets in the fund can be covered by reliable and company-specific data, we do not believe that carbon benchmarking is the most useful tool at this time for portfolio management. That includes our High Yield Bond Fund, Core Bond Fund, and Small Cap Fund; for these, data are often not available, and where estimates are applied, they are usually industry averages and provide no useful insight for portfolio construction. We monitor data availability, and we are active in several coalitions aimed at encouraging companies to report emissions data, and we are hopeful that in the future it will be possible to do carbon benchmarking in a way that is useful. Finally, we do not carbon benchmark the Pax Ellevate Global Women's Leadership Fund, which is a thematic fund based on investing in companies with more gender diverse leadership. We do not believe that applying nongender-related criteria to this fund would yield useful insights for portfolio management. Types of risk that these factors pertain to: regulatory risk, litigation risk, reputational risk, and credit risk.

Portfolio decarbonization: Portfolio decarbonization, to us, means capping the portfolio's carbon intensity at a level significantly lower than the benchmark. Both our ESG Beta funds have caps that keep portfolio carbon intensity at no more than 70% of the passive benchmark. We will consider lowering these caps – and perhaps applying caps to other strategies – in the future. Types of risk that these factors pertain to: regulatory risk, litigation risk, reputational risk, and credit risk.

Engagement and Proxy Voting

In much of the world, the only way to know what companies' or other securities issuers' emissions are is through voluntary reporting. We believe that such reporting should be mandatory, and when we have opportunities to express this belief to public policy makers, we do so. For instance, in 2011 we sent a comment letter to the EPA supporting the agency's proposal to require emissions reporting for all facilities that emit at least 25,000 tonnes of carbon dioxide (equivalent) annually. We were also part of a group of asset managers, asset owners and nonprofits that petitioned the SEC in 2007 to issue interpretive guidance to companies on reporting climate related risks and opportunities, and the SEC did so in 2010. But GHG emissions, climate risks and opportunities are still under-reported from the standpoint of investors. Engagement is a proven tool that can help to get more reliable data on GHG emissions in forms that are useful for investors. Moreover, we believe that successful engagements also have a halo effect: the more companies we can convince to report on emissions, set reduction targets, and otherwise manage climate risks, the more likely it is that their peers will do so too. Companies are increasingly attentive to how they compare with their peers or competitors when it comes to climate risks and opportunities, as well as other environmental and social performance.

We do three kinds of engagement: company engagement, collaborative engagement, and public policy engagement. Company engagements are discussions with single companies, sometimes with one or two other investors at the table. Some of these engagements happen because we filed or cofiled a shareholder proposal asking a company to take a specific action, and others result from our reaching out to a company with a request for dialogue. The table on the following page shows examples of some of our recent company engagements.

Company Engagements on Climate Change

COMPANY	YEAR	TYPE OF ENGAGEMENT	TOPIC
Alphabet (Google)	2018	Shareholder proposal	Asks that the company drop its membership in the US Chamber of Commerce due to the Chamber's lobbying and positions on climate change
Dominion Resources	2018	Shareholder proposal	Asks that the company prepare a scenario analysis of the company's current electricity generation and future plans incorporating the scenario of keeping future warming below 2°C
Valero Corporation	2018	Shareholder proposal	Asks company to issue a report describing company strategy for aligning business plan with 2°C goal
Occidental Petroleum Corporation	2017	Shareholder proposal	Asks that company produce assessment of impacts of 2°C goal
ConocoPhillips	2017	Shareholder proposal	Asks that the board's Human Resources and Compensation Committee report on alignment of senior executives' compensation with 2°C goal

The table above illustrates the scope of our engagements: for companies that are significant emitters, or that produce fossil fuels, we frequently ask for a report to shareholders on how the company's strategies align with the 2°C goal established in the Paris Agreement. While that agreement is not binding, and the US has signaled its intention to withdraw from it, we believe that this may be temporary, and in any case the 2°C goal was established to best represent the rough threshold beyond which climate change impacts start to become more catastrophic.

Collaborative engagements are much like company engagements, but done collaboratively with other investors. Pax has been involved in collaborative

engagements on climate change for many years. One of the earliest was CDP (the Carbon Disclosure Project), a 15-year effort on the part of investors with over \$100 trillion in assets to encourage companies (and now cities, states and regions) to report GHG emissions and manage their climate and other environmental impacts. Pax is also a member of the Investor Network on Climate Risk and Sustainability, a group of investors managing over \$23 trillion in assets that engages with companies, stock exchanges and capital market regulators to improve climate and sustainability risk disclosure. The following table illustrates some of the variety of climate-focused collaborative engagements Pax is part of.

Collaborative Engagements on Climate Change

SPONSOR OR GROUP	YEAR	DESCRIPTION OF ENGAGEMENT
Boston Common Asset Management and ShareAction	2017	Banking on a Low Carbon Future: Letter to 62 global banks asking them to disclose climate-related information related to TCFD standards on risk assessment and management, strategy and implementation, low-carbon products and services, and policy engagements.
The Climate Group and CDP	2017	The RE 100: a global initiative that engages with companies urging them to commit to 100% renewable energy
Ceres	2018	Letter to Ford Motor Company urging that the company support retaining or strengthening current US CAFÉ and vehicle GHG standards
New York City Employee Retirement System (NYCERS)	2017	Letter to General Motors urging GM to undertake scenario analysis consistent with TCFD guidance regarding climate change and its impact on the company's business model
Ceres and INCR	2017	Climate Action 100+: a five-year initiative to engage with the world's largest corporate GHG emitters to curb emissions, strengthen climate-related financial disclosures and improve governance on climate change

Pax also uses its voice to support public policy initiatives that will help to avert catastrophic climate change, or opposes public policy attempts to roll back or dilute existing programs that aim to mitigate climate change. We add our voice to initiatives that affect companies' incentives and the economics of efforts to mitigate or adapt to climate change. The table below illustrates some of these engagements.

Public Policy Engagements on Climate Change

SPONSOR	YEAR	DESCRIPTION OF ENGAGEMENT
USSIF (US Forum on Sustainable and Responsible Investment)	2018	Letter opposing the repeal of the Clean Power Plan
Ceres	2017	Letter to New Hampshire legislature opposing repeal of the state's Renewable Portfolio Standard and withdraw the state from the Regional Greenhouse Gas Initiative
Ceres and others	2017	We Are Still In: a coalition of companies, investors, colleges, and public officials committed to tackling climate change, upholding the Paris Agreement and ensuring a clean energy future
Ceres	2017	Letter to the California Legislature Appropriations Committee supporting SB 100, which would raise the state's renewable portfolio standard (RPS) to 60% by 2030
CDP, International Investor Group on Climate Change (IIGCC), INCR and the Principles for Responsible Investment (PRI)	2017	Letter from global investors to governments of the G7 and G20 supporting nations standing by their commitments to the Paris Agreement and other policy actions to keep climate change below 2°C

These tables are illustrative of Pax's engagements related to climate change and climate risk, but are not a census of those engagements. We choose our engagements both to keep pressure on companies, investors, and public policymakers to mitigate climate change, and also because we believe that such engagements can have a halo effect: convincing one company or municipality or agency to act to reduce emissions or manage climate risks serves as a signal to others that such actions are desirable. For instance, our co-filed shareholder engagement with Occidental Petroleum asking that the company prepare a report on what the 2°C scenario would mean to the company's business is part of a long history of engagement, on the part of many investors, asking that companies whose businesses are significant contributors to climate risk prepare for a different future. That kind of engagement rarely achieves instant results, but in 2017, for the first time, several such resolutions with major emitters actually received a majority of votes from shareholders, including the one with Occidental. We believe that the larger investors who voted for this shareholder proposal many for the first time—are seeing climate risk as a significant financial issue at least in part due to our many years' worth of efforts aimed at making the issue more prominent for companies and their investors, and for public policy officials whose actions affect companies' incentives to mitigate emissions.

Identification of Risk

Pax believes that climate risk is an evolving landscape, and in order to assure that such risks are priced properly in our investment processes, we must be vigilant in staying abreast of new developments on how climate risks present to investors. So, in addition to understanding the risks described above, we maintain active memberships in groups like INCR, the PRI, and CDP to stay current with the latest developments, and actively monitor developments in public policy, risk management, climate policy and climate science.

For example, we try to stay abreast of news regarding the science of climate attribution, in order to better understand the evolving landscape of litigation risk for companies we may invest in. As scientists become more accurate and precise in attributing specific weatherrelated events, like 2017's hurricanes, to climate change, the risk that big emitters will be sued rises, and the risk that property and casualty insurers, or reinsurers, will face higher claims or litigation that could affect their financial performance also rises.

We also try to keep current with the ever-changing picture of physical risk of climate change, and monitor the literature that updates that picture, particularly through

the work of the Intergovernmental Panel on Climate Change (IPCC) and its synthesis reports for policymakers, the reports of the Global Change Research Program (USGCRP) in the US, and climate-related reports from the National Academies of Sciences, among others. These reports and others present what is known about climate science and impacts in ways that are usable by non-scientists, and we find it useful to keep abreast of their work to keep track of emerging trends in developing areas. One example of such a trend is sea level rise. The initial IPCC report in 1990, for example, noted that sea level rise was "consistent with model projections," but that the prediction had wide error bars based on uncertainty in the science. By the time the USGCRP issued its report in 2017, the consensus was that sea level rise of 0.3 to 0.6 feet was very likely (a probability of 90% to 100%) by 2030, 0.5 to 1.2 feet by 2050, and 1.0 to 4.3 feet by 2100. The increasing certainty in the predictions of sea level rise allows us to be better informed in assessing the risks to certain companies and business models (for example, property and casualty insurance and reinsurance, real estate and property managers, and establishments that are often sited in low-lying areas, such as oil refineries) from sea level rise and the attendant increase in the probability of impacts from coastal storms.

We also try to keep current with changes in how climate risks are incorporated into finance and asset management. For example, when the credit rating agency Moody's announced that it incorporates climate change into credit ratings for state and local bonds, we noted that this could affect Pax's fixed income funds and began incorporating more information on climate-related vulnerabilities into our own assessments of state and local bonds. A few months before Moody's announcement, S&P, another credit rating agency, issued a report noting how climate risks might figure in credit ratings for a variety of issuers, from sovereigns to companies in various businesses. We regard it as part of our investment discipline to keep abreast of such reports, and any insight that we get from such reports on how to refine our own investment processes with regard to climate risk is used accordingly.

The examples above illustrate how we try to stay as up to date as possible with respect to identifying climaterelated risks and how they could affect our portfolios. There are many sources of information on this burgeoning issue, and we try to keep up with major trends and developments, for we regard climate risk as something that could affect our portfolios in many ways, and over any time frame from the short to the long term.

Key Metrics and Carbon Benchmarking/Footprinting

In our company/issuer research, the key metric we apply to GHG emissions is carbon intensity, or emissions per dollar of revenue. We compare each company's carbon intensity to those of its peers as part of our assessment of climate risks, particularly for the largest emitters. This is particularly applicable for the four sectors with the highest emissions intensity: utilities, materials, energy and industrials.

For our portfolios, we use weighted average carbon intensity of each portfolio compared with the weighted average carbon intensity of each portfolio's passive benchmark. The results and process are described in our 2016 Impact Report. The section below reproduces that section from that report.

As signatories of the Montréal Carbon Pledge, we committed to measuring and publicly disclosing the carbon intensity of our investment portfolios on an annual basis. We believe that carbon intensity is a useful quantitative tool that can inform the creation and implementation of a broader climate change strategy.

First, we used carbon intensity data from MSCI for each company held in our portfolios, which is determined by dividing its reported or estimated greenhouse gas emissions by its revenue. We then calculated a weighted average carbon intensity using portfolio weights as of December 30, 2016. Finally, we compared the weighted average carbon intensity of each fund with the weighted average of the carbon intensity of each fund's benchmark index.

Four Pax World Funds, the Large Cap Fund, the ESG Beta Quality Fund, the ESG Beta Dividend Fund and the Global Environmental Markets Fund, have a weighted average carbon intensity that is below their benchmark indexes or comparable to their benchmark indexes. We consider our funds to be comparable to their benchmarks if their weighted average carbon intensity is within 5 percentage points of the intensity of their benchmark. The MSCI International ESG Index Fund has a higher weighted average carbon intensity

than its benchmark index (MSCI EAFE ESG), but its weighted average carbon intensity is comparable to the MSCI EAFE index.

We were unable to measure the carbon footprint of our Mid Cap Fund, Small Cap Fund, Core Bond Fund or our High Yield Bond Fund due to a lack of sufficient, accurate information on carbon intensity in those investment universes. Also, we did not measure the carbon footprint of the Pax Ellevate Global Women's Leadership Fund, which invests in the Pax Global Women's Leadership Index*, an index of companies around the world that are leaders in advancing women. Carbon intensity plays a minimal role in the construction of the Index on which the Fund is based.

Carbon emissions is just one of many indicators of carbon-related risks in a portfolio. For example, our actively managed portfolios exclude coal and tar sands companies—the most carbon-intensive fossil fuels—which is another way we seek to reduce carbon-related risk. We believe that high carbon emissions are a risk factor, and as shareholders we want companies in our portfolios to proactively take steps to mitigate those risks.

*A custom index based on the MSCI World Index. One cannot invest directly in an index

SUMMARY

Climate change is an issue that will affect companies, investors, economies and society profoundly. We believe that it is part of our fiduciary duty to understand as completely as possible the risks that climate change presents in our portfolios, and to assure to the best of our ability that we price those risks appropriately to protect our investors. The same is true, perhaps to a lesser degree at the moment, of climate related opportunities. Climate change, and the risks and opportunities it presents, will be part of our financial and physical environment for the foreseeable future. We can best serve our shareholders by being attentive to those risks and opportunities, and adjusting as necessary as our knowledge of its impacts increases.

The statements and opinions expressed are those of the author of this report. All information is historical and not indicative of future results and subject to change. This information is not a recommendation to buy or sell any security.

RISKS: Equity investments are subject to market fluctuations, a fund's share price can fall because of weakness in the broad market, a particular industry, or specific holdings. Emerging market and international investments involve risk of capital loss from unfavorable fluctuations in currency values, differences in generally accepted accounting principles, economic or political instability in other nations or increased volatility and lower trading volume. Investments in high yield bonds generally are subjected to greater price volatility based on fluctuations in issuer and credit quality. When investing in bonds, you are subject, but not limited to, the same interest rate, inflation and credit risks associated with the underlying bonds owned by the Fund. Mortgage related securities tend to become more sensitive to interest rate changes as interest rates rise, increasing their volatility. Funds that emphasize investments



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in mid-size and smaller companies generally will experience greater price volatility. Investing in nondiversified funds generally will be more volatile and loss of principal could be greater than investing in more diversified funds.

You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. For this and other important information, please obtain a fund prospectus by calling 800.767.1729 or visiting www.paxworld.com. Please read it carefully before investing.

An investment in the Pax World Funds involves risk, including loss of principal.

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