

DOUGLASS WINTHROP 2021 ENVIRONMENT STRATEGY IMPACT REPORT

April 22, 2022

This inaugural Impact Report shares statistics and observations relevant to understanding the environmental impact associated with our portfolio holdings in 2021. This is an “annual” report that covers ownership positions across that year, at their average weightings, and does not reflect the impact of changes we have made in 2022.

Good for the Company or Good for the World? Our Answer: Both

Before moving on to portfolio statistics, let’s consider a couple of the wider debates that have framed, and occasionally muddled, the wider discussion of “impact” in ESG investing — including issues of financial vs. environmental performance and attendant concerns about greenwashing.

A December 2021 Bloomberg article entitled *The ESG Mirage* took MSCI to task for turning “the very notion of sustainable investing” on its head, intoning: “MSCI, the largest ESG rating company, doesn’t even try to measure the impact of a corporation on the world. It’s all about whether the world might mess with the bottom line.”

The authors go on to illustrate their thesis on MSCI’s consideration of water: “An upgrade based on a chemical company’s “water stress” score, for example, doesn’t involve measuring the company’s impact on the water supplies of the communities where it makes chemicals. Rather, it measures whether the communities have enough water to sustain their factories.”

That sounds problematic on its face. But let’s test it in relation to MSCI’s assessment of a holding that, per MSCI, has one of the highest “water stress” scores in our portfolio, Taiwan Semiconductor (ADR ticker: TSM). First, it’s true that MSCI considers the proportion of TSM’s operations that are in industrial segments prone to high water intensity and how much of its facility footprint is situated in regions affected by oversubscribed water resources — i.e., the risks that the world’s scarcity of resources poses to TSM’s operations.

But then MSCI moves on to assess what TSM is doing to manage that risk exposure through: implementation of water efficient practices (where it is awarded 10 out of 10); whether it uses alternative water sources such as treated sewage (it does); whether it recycles its water after use (per MSCI, TSM has an 87.5% recycling rate and it also launched an advanced on-site water reclamation plant at its Hainan facility last year); and how its freshwater withdrawal intensity per dollar of revenue ranks compared to peers (TSM is cited as 20 percent better). MSCI further reports on issue-specific governance, noting that water risk is subject to executive-level oversight, but not direct CEO accountability. Those findings, contrary to the Bloomberg article’s indictment, sound quite relevant to TSM’s impact on the world.

What does this tell us? First that the Bloomberg’s indictment of MSCI — and by extension of the asset managers who use its ratings — for alleged greenwashing is selective and overstated. We agree with Bloomberg and the Wall Street Journal¹ that marketing opportunism abounds in ESG investing at large and that investors should therefore critically scrutinize the authenticity of any ESG strategies – considering the team’s expertise and the rigor and judgment it brings to incorporating ESG factors into its investment process.

We also agree that MSCI and the other ESG ratings providers have limitations and are still maturing. This is why, while we subscribe to MSCI’s ESG service and employ their data for many of the statistics you will find in this letter, we routinely engage with the MSCI team on their evolving methodologies and company-specific assessments and never rely on their final grades to drive our investment decisions. Rather we do our own heavy lifting by going straight to a variety of data sources to reach our own conclusions. We also make sure that we



disentangle the E factors that we specialize in from the aggregated ESG grades that MSCI and others provide, avoiding the confounding and arbitrary effects of tradeoffs between them. The unsettled status of ESG metrics and grades is part of what makes this arena fertile for active management such as offered by DWA's Environment Strategy. Even as the SEC proposes to standardize what climate metrics companies must disclose, the exercise of investment acumen will always require qualitative judgments that weigh such "non-financial" factors alongside traditional fundamentals. ESG investing is not today, nor will it ever be, an exercise in box-checking.

But the Bloomberg article reflects what we regard as a more significant fallacy, which is the idea that one can draw a bright line between what's good for the world and what's good for a given company. Yes, some companies are small enough or short-term oriented enough that they manage to extract private benefits without regard to adverse impacts (or "externalities" in the economic parlance) that they may be imposing on the local community or the global environment, at least for a while. And yes, some business models – for example, extraction of oil and gas for combustion as opposed to more measured use of these precious molecules to formulate versatile chemicals – are in inherent opposition to urgent imperatives like reduction of greenhouse gas emissions. This unfortunate reality necessitates an orderly wind down and transformational redeployment of that sector's capital base if we are to stave off the worst consequences of escalating climate change. But putting aside such clear cases, we believe this "good for the world" vs. "good for the company" distinction often amounts to a false dichotomy when applied to other companies and sectors.

For one thing, businesses need a viable planet on which to do their business, now and for the long-term. See our prior discussion of the "universal operator" conceptⁱⁱⁱ which we coined to reinforce that our portfolio companies, like many large cap and midcap companies, have globe-spanning operations, markets and supply chains that are exposed to physical risks from intensifying climate change; their scale and interconnectedness means they cannot insulate themselves from exposure to global systemic risks like climate change by withdrawing to some blissfully unaffected region.

Second, our companies typically need a "license to operate" from their communities. Taiwan Semiconductor, for example, maximizes reuse of water in its operations so that it can draw less from the recently drought-prone Taiwanese regions in which its facilities are situated, while also securing a welcoming embrace (and site permits) as it builds new facilities in Japan and arid Arizona. This operational diversification will reduce the geopolitical exposure that has weighed on its valuation, and enable it to benefit from the drive toward the re-shoring of strategic industries like chip-making now underway in many countries; in other words, environmental and economic resiliency go hand in hand in this and many other cases, rather than being in tension with one another.

Third, many of our companies are innovation-centric and their crucial ability to attract, retain and motivate their most precious resource – human talent – gets a powerful boost from their favorable impact on the world. It's called purpose-alignment and CEOs increasingly speak to its tangible economic impact on productivity and related metrics like employee turnover and training costs.

Perhaps the most direct refutation of the "good for the world" vs. "good for the company" fallacy is that many companies — including the companies that have been selected for our portfolio through the E Solutions lens of our dual analytic framework — are achieving faster growth rates precisely because they are selling products and services that help customers address the world's most pressing problems, such as climate change, water stress, soil depletion and agricultural degradation, air pollution and environmental health risks. Further below, in the statistics section, we will share revenue assessments of such activities, as assessed by MSCI and with our proprietary adjustments.

Our second analytic lens — for identifying "E-Advantaged" companies — helps us unearth companies whose core products and services may not have an environmentally focused value proposition but that nonetheless demonstrate what we deem to be material advantages, such as employee alignment, resource efficiencies, enhanced customer loyalty, higher brand equity, lower cost of capital, embedded growth options, or attraction of long-term shareholders. Such shareholders in turn enable corporate executives to make strategic investments in climate solutions R&D or climate resiliency, even when it risks depressing short-term earnings. These advantages tend to amplify the ability of these companies to produce a sustainably positive impact on the world. Below we share examples of company metrics from this E-Advantaged segment of our portfolio too.



It's worth noting that the European Union has not tied itself in knots in grappling with the "good for the world" vs. "good for the company" issue that preoccupied the authors of the Bloomberg piece. When publishing the Non-Financial Reporting Directive (NFRD) in 2018, the EU skipped the polemics and coined the concept of 'double materiality', meaning that "companies have to report about how sustainability issues affect their business and about their own impact on people and the environment."^{iv} In other words, both were deemed important and interrelated measures of effective corporate management.

ESG's "Saintly Narratives"

A second influential strand of criticism of the impact claims of ESG investing was spearheaded by Tariq Fancy, the former chief investment officer for sustainable investing at BlackRock, who had an epiphany while writing what he called a "tortured" argument about how ESG investing could "fix" climate change.^v He realized that voluntary corporate action will not get the job done due to corporate short-termism and other reasons, that the market will not "self-correct" the epic market failure that brought us climate change in the first place, and that decisive government action is therefore required to catalyze the private sector if we're going to bend the emissions curve down. The danger of ESG investing in this mix, he added, is that it serves as an "opiate of the masses" making the public and policy-makers complacent. In his view, corporate ESG has "negligible impact" and its "saintly narratives distract the public from seeing the need for aggressive, systemic reforms that only governments have the ability and legitimacy to pursue."

As with the Bloomberg argument considered above, Fancy eventually goes on to overstate his case when he says: "the uncomfortable reality that being responsible usually isn't profitable." As noted, we have deep conviction that in a large and growing number of cases, actions companies take in furtherance of their own success can and do deliver wider environmental benefits, including mitigation of climate change.

That said, we agree heartily with Fancy that stronger governmental action is going to be critical to mitigating climate change in the "brief and rapidly closing window"^{vi} for action that the IPCC, an authoritative scientific body, told us in February that we now confront. As discussed in our last quarterly letter^{vii}, when we assess how E factors will bear on a company's economic prospects, we consider the company as a player on a multi-level chess board shaped by three evolving and interrelated variables: (1) government policy, (2) consumer expectations and (3) technology disruption.

Regarding the first of this triad, two of the members of the Douglass Winthrop Environment Strategy previously served for years at the U.S. Environmental Protection Agency, and this hands-on experience as regulators deeply informs our investment work. We cautiously avoid underwriting a base case in our proprietary forecast models for a company that assumes it will benefit from supportive policy outcomes, but we do study the projected company-specific effects of policy change closely, and typically incorporate these into our bull and bear case scenarios. What Fancy underplays is how voluntary corporate action driven by market competition can create crucial space for regulators; for example, a company can innovate a new technology that shows what's possible in terms of increasing fuel efficiency or reducing industrial process emissions, and thereby establish a new baseline for regulators to consider enforcing on the market as a whole. (The EPA, in fact, formalized this process years ago in enforcing Maximum Available Control Technology or MACT on companies to reduce air toxics, but the same logic operates in many arenas of environmentally relevant technology innovation and regulatory progression.)

In a similar way, companies sometimes differentiate their products or services by responding earlier than competitors to customer expectations for sustainability improvements. Meanwhile, those same expectations are exerted in parallel by customers — in their capacity as citizens — on their legislative representatives, who may promulgate mandatory standards in response. At that juncture, catch-up costs are imposed on the laggards, while the leader is busy monetizing the brand value and customer loyalty from having moved first. For example, consumers have grown concerned about how the supply of certain commodities such as palm oil and beef is driving increasing rates of Amazon deforestation.^{viii} Certain companies have responded with more robust policies and practices either to stop procuring commodity inputs from suppliers who are engaged in deforestation or to more proactively engage suppliers to change practices — a factor we've actively monitored to inform our selections for the portfolio. Then, just last year, the European Commission signaled a dramatic change from voluntary



to mandatory action in this arena when it published a landmark draft law requiring that agricultural products sold in the EU are free of both legal and illegal deforestation.^{ix}

As such, we agree with Fancy that this final step of policy enactment is crucial for achieving comprehensive and enduring environmental action (as well as a deserved payoff for companies who get ahead of the curve). Where we disagree with Fancy is that ESG investing is necessarily damaging to such policy outcomes. In our view, shareholder engagement by ESG investors is becoming an important lever for inducing corporations to use their influence to help bring about strong environmental policy. This conviction is central to our own “active ownership” program, which we cover in the next section.

So What Do We Mean by Impact?

In light of the larger ESG debates considered above, let’s take a step back and provide an overview of three ways we believe public equity investing can have authentic “impact”. Before unpacking them below, we first acknowledge that many of our clients are themselves doing important environmental work — in their day jobs in companies, government or non-profits, or as philanthropists, or as endowment managers at institutions that are educating the next generation in environmental science and policy. As such, our efforts to protect and grow the financial resources that our clients have available to sustain their own work is an important derivative impact of what we do everyday, and one that is central to our sense of purpose. One other impact-related benefit of our trusted client relationships is that sometimes a client introduces us to a non-profit environmental organization that they have supported philanthropically and we end up teaming up with that organization on our shareholder engagement work with a company (see more under “Active Ownership” below).

1. Each Dollar Counts in the Large-Scale Realignment of Capital Flows Toward Solutions

Investing in listed equities usually means buying secondary shares, meaning that one’s capital goes to an independent seller of the security, not into the corporate treasury. By contrast, venture investing into a small technology company that is inventing or bringing a sustainability innovation to market typically provides cash directly into that company’s account; moreover, that capital is often critical to its survival as a going concern. Partly for this reason, “impact investors” have long gravitated to venture investing, where the utility of the marginal dollar is more apparent than in the bigger mixing bowl of public equity investing.

However, it is possible to buy primary equity issuances from public companies on occasion, thereby injecting capital directly to the company (or to buy a company’s green bond issuances, where the proceeds are often ring-fenced for sustainable purposes). More importantly, and perhaps subtly, when ESG investors collectively recognize the sustainability attributes of a company, and share these insights with one another through research that substantiates its connection to economic performance, this enhanced demand for the shares can drive long-term appreciation of the company’s stock price. Consider the analogy to an individual voter who can regard his or her individual vote as inconsequential (i.e., as having no “impact” on the election outcome since elections are almost never decided by precisely one vote), whereas the impact of combining that individual vote with many others, recruited perhaps by communicating the pro-environment attributes of a candidate, can lift that candidate to office. Similarly, each dollar counts in the larger realignment of capital flows toward solutions, and the economics of sustainability are increasingly an animating rationale among market participants who drive this process.

Furthermore, when corporate executives come to understand that a significant portion of their shareholder base recognizes and values their sustainability performance, and that these shareholders are more inclined to be long-term holders rather than opportunistic traders, it can create virtuous circles that promote further investment in sustainability advances. This includes farsighted R&D investments in sustainable innovations that may depress short term earnings while boosting long-term resiliency and upside.

To the extent the stock price is thereby supported and lifted, the corporate team possesses a powerful currency with which acquire other companies — including sustainability-oriented companies as many of our portfolio companies have done — and to attract and retain purpose-



aligned talent with stock-based compensation, not to mention a favorable and lower cost of equity capital in any new issuance. The positive migration of capital toward companies that help to solve environmental problems is leading some of them, over time, to benefit from the enhanced valuation multiples typically associated with “quality” equities. This has been reinforced for companies that are widely held in ESG portfolios during the record inflow of assets to such strategies in recent years. Moving selectively in this “opportunity” terrain (ideally ahead of the ESG “crowd”) is what we strive to do in the Environment Strategy.

The power of this virtuous circle dynamic can also be understood by viewing its negative counterpart in the divestment movement. Divest-Invest now counts \$39 trillion in signatory assets that have committed to avoid investing in fossil fuel companies.^x Yes, such divestors missed out on the energy “trade” in 2022 as Putin’s invasion of Ukraine shook global markets. But the accelerating loss of institutional shareholders from the capital base of oil and gas companies has, we believe, contributed to a material change in their prospects, and undermined their readiness to make long-term investments in exploration and production. While the divestment movement is often framed as ethical, the hard economic reality is that oil and gas companies are exposed to the kind of regulatory progression we’ve discussed above, as the world goes from pricing around 22% of carbon emissions today to a likely higher proportion in the future. This, combined with technology innovation and consumer pressure, has increased the risks that oil and gas assets will be stranded and written down.

2. Public Equities: The Scale is the Thing

A second “impact” attribute of sustainable public equity investing is the sheer scale involved. On this dimension, this asset class compares favorably to the venture stage investing that has long attracted “impact investors.” Venture stage companies can take a decade or longer to scale up organically and begin materially reducing emissions in the building, power and transport infrastructures that impose all kinds of barriers to upstart innovators — from regulatory and safety permitting to building codes to public acceptance. In fact, a crucial accelerator of the scaling function for such innovative companies comes from go-to-market partnerships with, or corporate venturing and acquisition by, the large cap companies we invest in. All three members of the Environment Strategy Portfolio Committee have previous experience as venture investors and all of us monitor our venture and private equity networks and deal flow for emerging sustainability companies; we pay special attention to noting which public companies are in their cap table, a clue that may speak to their skill in identifying reinvestment opportunities and strategically embracing their own transition to a low-carbon economy. For example, we appreciated **Schneider Electric’s** co-funding of its subsidiary Aveva’s acquisition of OSIsoft in 2020, a Silicon Valley-backed industrial software company enabling industrial IoT, efficiency and sustainability. Similarly, we appreciated **Generac’s** 2020 acquisition of Enbala Networks to enable homeowners to aggregate and monetize distributed energy resources like generators, batteries and solar roofs, and its 2021 acquisition of solar microinverter company Chilicon Power. We could cite many other examples from the portfolio. While our indirect exposure to venture-stage companies through acquisitions like this is diluted within a larger enterprise relative to the pure-play exposure experienced by the venture investor that owned stock in the acquired company, it nonetheless constitutes authentic exposure, at substantially lower risk of permanent capital loss, and creates embedded growth options that can become major revenue streams for our companies overtime.

Illustrations of the scale impacts of our holdings in 2021 include:

- **Unilever:** A staggering ~2.5 billion people use Unilever products daily. When Unilever committed to put climate footprint labels on 70,000 products in 2020^{xi} and to halve the lifecycle emissions of those products by 2030, this spoke to management’s readiness to reach beyond their operational walls and reduce downstream customer emissions during the “use phase” of their products, and to educate a substantial portion of the world on climate and carbon while doing so. When it committed to achieve zero deforestation in its supply chain by 2023, this wasn’t a voice in the wilderness: Unilever is the world’s largest purchaser of palm oil, one of the big four “forest risk commodities” responsible for tropical deforestation.



- **Nike:** A leader in the application of circular design principles, Nike's FlyKnit process had reduced waste by 60% by substituting knitting of seamless uppers for fabric cutting. It then further committed to use recycled polyester for its micro-engineered yarns, leading to diversion of well over four billion plastic bottles from landfills.
- **Alphabet:** The company's Nest learning thermostats have helped customers save an estimated 50 billion kWh of energy and reduced household emissions. Google has committed to provide 1 billion people new ways to take actions to reduce their environmental footprint by 2022 — for example, using Google Maps to chart eco-friendly routes that may be more fuel-efficient because they use mass transit or bike sharing, even if not the fastest route available.^{xii} Google has committed to help over 500 cities to reduce 1 gigaton of carbon emissions annually by 2030 (note that 70% of global greenhouse gas emissions originate in cities). Extending from the core to Alphabet's "other bets" such as Waymo's autonomous vehicle technology or Sidewalk Labs' digital innovations for sustainability, we see a company using its extraordinary reach and cash flow to galvanize change on a global scale. While none of these activities alone are major revenue streams in relation to its core search and advertising business, we believe Alphabet's sustainability contributions boost consumer goodwill and readiness to use its ubiquitous products daily.
- **Trane:** This leader in air conditioning and transport refrigeration has invested ahead of the regulatory curve to achieve higher efficiency with its EcoWise product line and to use refrigerants that are less potent greenhouse gases. It has made the most ambitious B2B commitment for greenhouse gas reduction, indicating that it will reduce 1 billion tons from the "customer use phase" of its products by 2030 — which equates to ~2% of the world's annual emissions or the annual emissions of Italy, France and the UK combined. In other words, Trane is a company acting at the level one would expect of a country (actually three countries). This is public equity scale.

A final wrinkle we'd spotlight as a source of impact attendant to scale is that many of our portfolio companies are pioneers in driving new models for procuring low-carbon solutions. Two examples:

- **Salesforce:** Salesforce's data centers have an average Power Usage Effectiveness (or PUE, a sector-specific efficiency metric) that is consistently better than its peers. In terms of the electricity it uses rather than saves, it has signed Power Purchase Agreements (PPAs) to ensure that its procurement is adding new renewables onto the grid where possible. It also worked with the non-profit organization WattTime to pioneer "emissionality," a "technique to make large-scale renewable energy projects even more impactful by deliberately siting them in locations where building new renewables displaces particularly polluting power plants."^{xiii} Salesforce further announced attainment of Net Zero across its value chain in October 2021^{xiv}, and has launched Sustainability Cloud as a robust carbon accounting product to give its customers a 360-degree view of their environmental impact and provide data-driven insights to help them take action.
- **Alphabet:** Alphabet's Google unit, like Salesforce, has been matching 100 percent of its annual electricity consumption with purchases of renewable energy. This can mean "buying a surplus of renewable energy in regions where solar and wind power are abundant — like the U.S. Midwest — to address the lack of renewable energy in other places, such as Taiwan" or buying "additional solar energy during the day to compensate for use of carbon-intensive energy at night."^{xv} Google has now declared a "moonshot" goal to operate with clean energy every hour of every day, everywhere. This depends on policy change and coalitions so in September 2021, Google partnered with Sustainable Energy for All and the United Nations to launch the new 24/7 Carbon-Free Energy Compact – a set of principles and actions to drive systems-level change.



3. *“Active Ownership”: A Core Pillar in the Impact Case for Public Equities*

A third category of impact, and one involving a tighter causal line, relates to “active ownership”. In the industry vernacular, this is sometimes called “shareholder engagement” or “investment stewardship”. In the case of ESG investing, it refers to efforts to prompt a company to behave more sustainably through dialogue with management or use of the shareholder proxy vote in activist ways. This includes initiating or joining a vote to elect alternate directors to the board or introducing shareholder resolutions on issues like climate change that are typically non-binding but still consequential as a signal that the board disregards only at its peril. Here the wider impact debate is primarily about whether such influences, short of a proxy vote that changes out the board, ultimately modifies corporate behavior. And, further, questions arise about whether it’s appropriate or prudent for “outside” shareholders to seek to do so, given that management has the fullest information base on which to act and is entrusted to act to maximize the company’s prospects as a whole.

Because Douglass Winthrop’s Environment Strategy considers the quality and E-orientation of management before investing, we tend to believe in our management teams. As such, we favor selective, private and constructive dialogue with them, through letters that clearly make our case, followed by discussions with the appropriate members of the management team. Consistent with our performance-first approach, we always formulate our case urging stronger environmental performance through the lens of how doing so will ultimately translate into better financial and shareholder performance for the company, while also enhancing environmental well-being. Again, circling back to the ‘double materiality’ perspective referenced above, we believe corporate and environmental well-being are more often positively linked than not, particularly over the medium to long term.

As to debates about the efficacy of engagement, we are clear-eyed in recognizing that this will vary and that we are one voice among many that management considers. What we have found so far is good receptivity by management to our engagement outreach, based less on the size and voting power of our holdings in a company, and more on the collective decades of environmental domain expertise residing in our team. This experience makes some management teams eager to hear us out as they chart their path on climate and other issues, both because of the substantive value of our input and because we are indicative of wider investor trends to which they want to be attuned as ESG asset flows intensify. This circles back to point number 1 above: each dollar counts and it is part of a cumulative flow that together is growing in its influence on equity prices and related corporate outcomes. Moreover, we are already working together with other shareholders in formal and informal coalitions and aspire to increase the scale and power of some of our asks in the future. Examples include our collaboration with Say on Climate^{xvi} and our ongoing working relationships with shareholder networks like CERES^{xvii} and As You Sow^{xviii}. The question about efficacy also circles back to point number 2 above: while the degree of difficulty of nudging a large cap company to behave differently is high, the impact payoff for any success is high given the corporate scale involved.

Our typical approach is to partner with a leading Non-Governmental Organization (NGO) that specializes in the domain on which we’re engaging a company. An example is our work with the Sustainable Fisheries Partnership^{xix}, to which we were introduced by a client in the Environment Strategy, to partner with us on our engagement with Costco:

- **Costco:** We have sent multiple letters and conducted discussions with Costco management encouraging management over the past year to build on the company’s track record of sustainable fish procurement by taking an even more systematic and muscular approach. We conveyed that we believe this would enhance Costco’s security of supply, the loyalty of its membership base (whose recurring subscription comprises the heart of their business model), and its competitive positioning relative to peers like Walmart, which has been making forceful commitments to become a “regenerative” company in fisheries and other areas). Costco has been responsive but has not agreed to all our requests, including more comprehensive disclosure of all the fisheries from which they procure and their respective progress toward sustainability through Fisheries Improvement Projects (FIPs) and other mechanisms.
- **Amazon:** Circling back to our key point of rebuttal to Tariq Fancy’s argument above, we are acting on our belief that shareholder engagement can be an important lever for inducing corporations to use their influence to help bring about strong governmental



policy on environmental matters. As such, our engagement activities include a major focus on urging our companies to advocate forcefully in support of strong climate policy and regulations, both directly and through their trade associations. Our non-profit partner on this work is InfluenceMap,^{xx} a London-based think tank that produces independent analysis and grades on how companies use their government lobbying and advertising resources to accelerate or impede climate policy. Among our key asks, we urged Amazon to:

- Increase transparent, positive advocacy across several pending climate-related policy issues (which would likely further raise its already respectable 80/100 score)^{xxi};
- Attend to its less favorable 62/100 “Relationship Score”, which reflects its membership in the U.S. Chamber of Commerce. The Chamber earned an E- grade from InfluenceMap for its obstruction of urgently needed climate policy in the U.S.^{xxii} and, according to recent InfluenceMap research does not appear to be on track to improve.^{xxiii};
- Publish a detailed annual review to ensure that all its direct and indirect lobbying activities (via trade associations) are consistent with the 1.5°C goal of the Paris Agreement, including reporting on specific cases of misalignment, as well as the steps taken to address specific cases of misalignment, in line with the Global Standards on Responsible Climate Lobbying^{xxiv};
- Incorporate InfluenceMap assessments into its Climate Pledge Friendly certification program, making this rigorous research easily available to its customers as they browse for products on the Amazon website. This ask is consistent with Amazon’s stated intention to add new certifications to its pioneering Climate Pledge Friendly system^{xxv}. Moreover, InfluenceMap has made this step easy by developing a red-orange-red traffic light system as part of the Climate Action 100+ benchmark process^{xxvi} for easy screening of the degree to which companies are negative or positive on climate policy action.

Another strand of our “active ownership” work is proxy voting. For those clients who have authorized us to do so, we have begun the process of voting their proxies for all of our Environment Strategy portfolio companies in line with strong climate action. We have subscribed to Institutional Shareholder Services’ (ISS) Climate Proxy Voting Policy and we use their infrastructure, ProxyExchange, to execute on these votes. Launched in March 2020, the ISS Climate Policy is based on principles developed from widely recognized international frameworks such as the Taskforce for Climate-related Financial Disclosures (“TCFD”), using a scorecard approach that reflects climate-related risk factors and performance indicators.

Also relevant to our proxy voting is that the Douglass Winthrop Environment Strategy has joined Say on Climate^{xxvii}, which uses engagement and shareholder resolutions to encourage companies to: 1) disclose their emissions; 2) present a credible, multi-stage plan to reduce them; and 3) submit their plans and progress to an annual shareholder vote (where appropriate, and note that it is not always appropriate given concerns that such votes can inadvertently rubber stamp inadequate plans, a matter of live discussion among collaborators in this initiative). We believe this initiative is enhancing the drive for corporate accountability, and are encouraging all of our companies in the Environment Strategy to meet its conditions, while we also vote in favor of shareholder resolutions to this end.

To recap, our three priority areas for active ownership are:

1. **Climate/carbon:** Full-scope (1,2,3) greenhouse gas emissions disclosure, emissions reduction targets and plans, often (but not always) submitted for annual shareholder review and approval as to sufficiency and progress (Key collaborators: Say on Climate, As You Sow, CERES);



2. **Corporate advocacy:** Urging our companies to deploy their resources and influence to promote climate/environmental policy (Key collaborator: InfluenceMap); and
3. **Sustainable use of biological resources, especially fisheries and forests:** Avoiding deforestation, overfishing and other practices that undermine the biological integrity and viability of resources on which we and future generations depend (Key Collaborator: Sustainable Fisheries Partnership).

As we build AUM in the Environment Strategy, we look forward to being able to allocate more staff resources to ramping up our “active ownership” work in the future.

Portfolio Impact Statistics

We now move to the statistics section of this impact letter. Here our proprietary views will take a back seat, because we want to offer clients — in this report and once a year going forward — statistics that draw primarily on an independent source, a “referee” of sorts. We reviewed a number of data firms in 2021 before choosing to subscribe to MSCI’s ESG data services. We found their coverage of our investable universe to be robust, their data often illuminating and well organized, and their tools useful. We know and value the MSCI analysts and interact with them regularly as their methodologies continue to evolve. We use MSCI’s service for ongoing research support and “sanity checks”, and to provide tools for efficiently producing portfolio wide statistics such as we share below. As a reminder, we note a few things:

- We do not strive to invest only in best-in-class companies, whether according to MSCI’s ratings or any other third-party source. Rather we often find investment opportunity in companies that are commencing a credible improvement trajectory on environmental performance that has yet to be realized in their financial performance or equity prices.
- We use MSCI as an aggregator and originator of relevant insights but do not rely on its final ratings to drive our investment decisions, since they combine E, S and G factors whereas we focus primarily on the E factors, and because our own qualitative judgment on the materiality and investment relevance of any particular E factor often varies.
- MSCI data is especially focused on providing a snapshot of a company’s current environmental metrics though it also offers forward-looking data on corporate policies, targets, scenarios, opportunities and risk exposures. Our MSCI-derived statistics below speak more to the former, but our investing is informed more by the latter, including proprietary insights we develop about where a company is heading in the future.
- MSCI data regarding a company’s environmentally relevant opportunity set typically focuses on direct opportunities, whereas some of our most creative investment theses arise from considering the first and second derivative opportunities, or the indirect enablers of a low-carbon economy. For example, ASML’s Extreme Ultraviolet Lithography machines are enablers of advanced chipmaking that will enable the next generation of embedded sensor intelligence, edge computing and artificial intelligence. These innovations will provide a dramatic boost in industrial and transport efficiency and transformational efficiency gains across many other sectors in the decades ahead. Our investments in such companies, typically in the E-Advantaged portion of our dual analytical model, are not always thematically obvious, and the company’s sustainability contributions are not always traceable in the statistics compiled by MSCI.

1. MSCI ESG Portfolio Results:

| Metric | DWA ES* | S&P500** | MSCI SRI** | MSCI World*** |
|---|---------|----------|------------|---------------|
| MSCI ESG Rating | AA | AA | AAA | AA |
| Environment Score (0-10) | 7.0 | 6.2 | 6.9 | 6.1 |
| Social Score (0-10) | 5.3 | 5.0 | 5.7 | 5.1 |
| Governance Score (0-10) | 5.0 | 4.8 | 5.8 | 5.1 |
| Weighted Average Carbon Intensity (t CO2e/\$M sales) | 150.2 | 130.5 | 58.0 | 146.0 |
| Weighted Average Carbon Intensity (t CO2e/\$M sales) ex. NextEra Inc. | 78.7 | 130.5 | 58.0 | 146.0 |
| Fossil Fuel Reserves (%) | 0.0% | 4.4% | 1.1% | 6.8% |
| High Impact Fossil Fuel Reserves (%) | 0.0% | 4.2% | 0.7% | 6.2% |
| Exposure to High Water Risk (%) | 8.8% | 5.0% | 6.9% | 6.8% |
| Total Water Withdrawal Intensity (m3/\$M sales) | 31,840 | 43,207 | 32,404 | 40,710 |

*Weighted average holdings from 01.01.2021 to 12.31.2021

**Holdings as of 12.31.2021

***Holdings as of 03.08.2022

- Recognizing the issue of confounding tradeoffs across the E, S and G, as discussed above, the Environment Strategy's MSCI ESG rating in 2021 was AA, which matches two of the reference indexes (S&P 500 and MSCI World) and is one notch below the MSCI's SRI rating of AAA. However, the DWA Environment Strategy intentionally focuses on the E pillar within ESG, and on this pillar of MSCI's three-party scoring system, MSCI awards the Environment Strategy a 7/10, higher than all three reference benchmarks.
- As shown above, the Environment Strategy had a weighted carbon intensity (i.e., tons of carbon dioxide equivalent per dollar of sales) that is higher than the three reference benchmarks; however this is driven principally by its one outlier, **NextEra Energy**, without which our portfolio's carbon intensity is substantially lower than the S&P 500 and MSCI World and somewhat higher than the MSCI SRI index. NextEra owns two utilities with substantial natural gas-fired capacity, however it is rapidly growing utility-scale solar installations in its service areas, and its non-regulated wholesale development and operations arm, NextEra Energy Resources, is the largest developer and operator of non-hydro renewables in the world.
 - Veolia** was the second largest driver of carbon intensity in our 2021 portfolio, primarily generated from their waste business (landfill methane and incinerators). Veolia is a leader among peers in its carbon management, per MSCI and our independent assessment. The company had a 56% methane capture rate and constructed a landfill waste-to-biomethane unit in Paris that is the largest facility for producing green gas at a non-hazardous landfill in Europe.
 - Waste Management** was the third largest driver of carbon intensity in our 2021 portfolio. It was collecting landfill gas (LFG) from 93% of its 315 active landfills (better than peers Republic Services at 90% and Waste Connections at 20%). LFG was used to power more than 33% of Waste Management's total truck fleet. It recycles about 25% of the municipal solid waste it collects and continued to invest in automating its Materials Recycling Facilities (MRFs), a timely investment program given commodity prices. It began an \$800mm investment program into 17 new Renewable Natural Gas plants on top of 4 existing ones (producing pipeline quality gas from decomposition of waste that can substitute for fossil fuel natural gas) that is forecast to generate 400mn in EBITDA by 2026 and \$825mm into existing and new MRFs



that will generate 180mn in ETBIDA by 2026. Returns on these sustainability investments are on track to be much higher than reinvestments into acquisition of more solid waste acquisition and they reflect proactive environmental stewardship.

- Our weighted portfolio exposure to high water risk was 8.8%.
 - The top contributor to our portfolio water risk score was **Taiwan Semiconductor**, whose proactive risk management we discussed on Page 1 of this report
 - **SolarEdge** was identified as another high water risk holding due to the location of their facilities in Israel, China, and certain parts of Europe. However, they manage this well in that their operations are extremely water efficient. Their new 17,000 square meter site in Israel has a closed loop system for water processes, featuring zero wastewater discharge. Their total water withdrawal is relatively limited both on an absolute basis and relative to sales.
 - **Beyond Meat** was given a high-water risk score by MSCI due to lack of disclosure about water usage and recycling. However, we note that in a lifecycle assessment study conducted in 2019 by another third party, Beyond Meat Burgers were found to generate 90% less greenhouse gas emissions, requires 46% less energy, and have >99% less impact on water scarcity and 93% less impact on land use than a ¼ pound of U.S. beef.^{xxviii}
 - MSCI's "water stress" portfolio score gets at its assessment of risk exposure, but does not give credit for our companies that are selling solutions to tackle the issue of water scarcity, including **Xylem**, which provides a comprehensive lineup of equipment, technology and services into the transport, treatment, testing, and efficient use of water across utility and industrial markets; and **Danaher**, whose Pall, Hach and Trojan businesses offer a range of water solutions from energy-efficient UV water filtration to advanced water analytics.

2. UN Sustainable Development Goals:



Source: <https://sdgs.un.org/goals>



The UN Sustainable Development Goals (SDGs), adopted in 2015, is a series of 17 goals, each supported by specific targets and indicators, that constitute one of the most influential and widely referenced strategic roadmaps for the planet's joint developmental and environmental future.^{xxix} The SDG framework is often used by companies and ESG managers to categorize the impact of their portfolio, and sometimes (less often) to quantify it. The nine categories in our DWA E-Map broadly align with nine of the SDG goals 3, 6, 7, 9, 11, 12, 13, 14, 15. (See **Section 1 of the Appendix for a diagram of their cross-mapping and Section 3 of the Appendix for the 2021 Environment Strategy portfolio holdings in relation to the DWA E-Map.**) Some companies' products and services apply to multiple SDGs and multiple DWA E-Map categories at once. MSCI's SDG Alignment Methodology evaluates the alignment of individual companies through their products, services and operations, yielding the following data:

- Out of our 37 companies, 32 (**89%**) were aligned to at least one of the nine referenced SDGs;
- Our three highest exposures were to SDG 12 (**57%**), SDG 13 (**39%**), and SDG 7 (**37%**);
- We were relatively under-exposed to SDGs 3, 11, 14;
- None of our 37 companies were "Strongly Misaligned" with the nine referenced SDGs;
- Three of our companies were misaligned (not "Strongly Misaligned") with SDG 3 as follows:
 - **Nike** was implicated in a small number of controversies, including a Clean Clothes Campaign report that alleged non-provision of wages and unlawful termination of workers in supply chain amidst COVID-19 pandemic;
 - **Tesla** was implicated in a small number of controversies, including worker criticisms over alleged lack of safety measures against COVID-19 for employees at the Fremont factory; and
 - **Amazon** was implicated in a small number of controversies, including NGO criticism over allegations of poor working conditions and low wages at supplier Foxconn's Hengyang factory.
- Three of our companies misaligned (not "Strongly Misaligned") with SDG 9:
 - **Microsoft** was implicated in a small number of controversies, including European Commission antitrust investigation against Microsoft Teams;
 - **Amazon** was implicated in a small number of controversies including in Italy, where they incurred EUR 1.1 billion penalty over alleged abuse of dominant position in online commerce since 2016;
 - **Apple** was implicated in a small number of controversies including a U.S. Congressional information request and lawsuits over allegations of anti-competitive practices favoring its own apps sold through App Store; and
 - **Alphabet** was implicated in a small number of controversies, including 16 state filed lawsuits over alleged anti-competitive business practices.

3. MSCI Sustainable Impact Metrics:

MSCI also uses a proprietary methodology for estimating the percentage of a company's products and services that map to its six categories of positive impact on the environment: (1) alternative energy; (2) energy efficiency; (3) green building; (4) sustainable water; (5) pollution prevention; and (6) sustainable agriculture.

- Overall, **10.5%** of revenue from DWA ES portfolio companies was contributing to one of MSCI's six categories, higher than all three of our reference benchmarks. When we consider only the DWA companies that fall into the E-Solutions side of our dual analytic framework, that figure rises to **17.3%** or **3-5x** higher than our benchmarks.



MSCI Environment Impact Exposure (% of revenue)

| Metric | DWA ES* | S&P500** | MSCI SRI** | MSCI World*** |
|-------------------------|--------------|-------------|-------------|---------------|
| Alternative Energy | 2.5% | 0.3% | 0.6% | 0.4% |
| Energy Efficiency | 5.9% | 2.7% | 3.2% | 1.9% |
| Green Building | 0.0% | 0.2% | 0.5% | 0.4% |
| Sustainable Water | 1.7% | 0.1% | 0.2% | 0.1% |
| Pollution Prevention | 0.4% | 0.2% | 0.3% | 0.1% |
| Sustainable Agriculture | 0.0% | 0.0% | 0.1% | -0.1% |
| Total | 10.5% | 3.5% | 4.9% | 3.1% |
| E-Solution Only | 17.3% | 3.5% | 4.9% | 3.1% |

*Weighted average holdings from 01.01.2021 to 12.31.2021

**Holdings as of 12.31.2021

***Holdings as of 03.08.2022

Source: MSCI

- Standouts included:
 - **SolarEdge**, one of the world's largest sellers of inverters for residential and commercial solar systems, was 74% aligned
 - **NextEra** was 21% aligned;
 - **Tesla** was scored as 94% aligned;
 - **Schneider Electric**, a French multinational providing energy management and industrial automation solutions, was assessed as 27% aligned. Electrification is a major decarbonization solution into which we are investing. Schneider estimates that the required CO2 emissions reductions by 2030 to meet a 1.5°C trajectory will require a 1.5x boost in electricity in buildings, industry and mobility systems – together constituting a major increase in the addressable market for their lineup of electrical components and systems. Schneider's sustainability business, which includes consulting, digital services, and energy performance contracting, will result in >800M tons of CO2 saved and avoided for customers between 2018-2025.

Again, recognizing that we often vary from the assessments provided by MSCI and other data providers, we applied our own proprietary framework to adjust the share of revenues we deem as aligned to MSCIs six categories, as well as adding "climate adaptation" as an eligible solution (in this, we align with the EU, which counts adaptation as one of the six categories in its EU Taxonomy for Sustainable Finance). The materiality threshold for inclusion in our E-Solution category is 15% of revenue, as of today or in the coming five years per our growth projections. The headline is that the environmental impact solutions revenue rose from 10.5% to **23.2%** for our Environment Strategy portfolio as a whole across 2021. For E-Solution providers only, this adjusted figure rose to **48.8%**, while for E-Advantaged companies only it remained at **6.8%** on a weighted basis, even after proprietary adjustments for two E-Advantaged companies. Within the E-Solutions group, we made proprietary upward adjustments to: **Beyond Meat, Danaher, Schneider Electric, Trane, Xylem, SolarEdge** as well as the following three, for which we offer brief rationales:

- **Generac** was added to our portfolio originally as primarily an E-Solution provider based on use of its standby generators to cope with power outages that have been rising in frequency and severity due to climate change. However, Generac has moved strategically into residential batteries and solar micro-inverters, two categories that are counted in traditional definitions of "alternative energy", including MSCI's. However we adjust its revenue upward from MSCI's 15.8% to **60.3%** to include the



residential segment of Generac's core standby generator revenue is counted as a climate adaptation solution in line with our E-Solutions thesis for this holding.

- **Hannon Armstrong:** We also adjusted the revenue exposure for Hannon Armstrong, the first U.S. publicly traded company that provides financing to sustainable infrastructure projects. Over the course of 2021, HASI invested \$1.7bn in climate solutions in behind the meter, grid connected, and sustainable infrastructure solutions. Their managed assets support >16 GW of renewables and >290 energy efficiency investments that span the country, resulting in 800mt of incremental annual reductions in carbon emissions and 228mg of water savings^{xxx}. With a growing pipeline of projects and stable project yield, it is clear to us that HASI's revenue exposure to climate solutions should not be 0, as assessed by MSCI, but **100%**.
- **Siemens** was deemed by MSCI to have **9.5%** of its sales as contributing to Sustainable Impact. However, our adjustment followed Siemens own rigorous quantitative methodology for allocating its products and services to its "Environmental Portfolio". By its own measure, it considers **31%** of revenue in fiscal 2021 to meet its standard. Note that Siemens counts products and services that enable customers to reduce their carbon footprint and lifecycle environmental costs by specific amounts. For example, energy efficiency products must offer an improvement in energy efficiency of 20% or more during the customer use-phase compared to the applicable baseline, or a reduction of at least 100,000 metric tons of carbon dioxide equivalents per reporting period compared to the applicable baseline^{xxxii}. An example in Siemens portfolio is smart building technology systems that meet the absolute reduction criteria. In fiscal 2021, the 31% of revenues from the Environmental Portfolio reduced customer CO2 emissions by 88 million metric tons.

As for the **E-Advantaged** side of our dual analytical filter, we use **15%** as a general, not strict, figure of merit to validate that an E-Advantage meets a minimum materiality threshold across at least one of our five traditional DWA economic filters. Examples include:

- **Higher brand value:** L'Oréal was named the world's most valuable beauty brand, with a value of \$10.2 billion, more than **15%** higher than second place Gillette^{xxxii}. While precisely attributing valuation to environmental performance is not possible, we have studied L'Oreal's proprietary SPOT tool for conducting life-cycle sustainability assessments on new and renovated products and believe this contributes to customer loyalty, based on customer appreciation for reduced environmental impact but for the company's concerns about the environmental safety of products that they put on their skin. We've also noted L'Oreal's strong performance relative to peers on sustainably sourcing commodities like palm oil that are known drivers of tropical deforestation. However, it still has room to improve and we intend to engage them to prioritize this.^{xxxiii}
- **Higher willingness-to-pay:** Nike's robust efforts to reduce the environmental impact of its manufacturing process are cited in a study by RunRepeat, which also found that of the 2,556 shoes in its database from 34 brands, the 89 shoes from Nike and others that it qualified as eco-sneakers commanded a **69%** price premium.^{xxxiv}
- **Higher pricing power than peers:** ASML's gross margins were 52.7% in 2021, more than **15%** higher than its competitors Nikon and Cannon.
- **High R&D as % of sales:** Autodesk reinvested **18%** of sales into R&D in 2021, dedicated to delivering additional automation and insight into increasing efficiency and sustainability for customers from upfront design through to the "make" process in buildings and product manufacturing.^{xxxv}
- **Lower cost of capital:** In May of 2021, Equinix issued \$1bn of senior green notes due 2031 at 2.50%. Compared to other BBB rated, non-green issuances in that quarter with a similar duration, the coupon on the Equinix notes were 115 bps (**30%**) lower, giving Equinix an advantaged cost of capital to support sustainability activities like its co-formation of the Climate Neutral Data Centre Operator Pact to help Europe transition to a climate neutral economy.^{xxxvi}

4. MSCI Climate Value at Risk (cVAR):

As defined by the Task Force on Climate-related Financial Disclosures (TCFD), climate risk can be categorized into two categories:

1. Transition risk: how the transition towards a low carbon economy will impact a company's performance, through extensive policy, legal, technology and market changes; and
2. Physical risks: the risks associated with the direct impact of climate change on a company's operations, such as extreme temperatures, water availability, food security

MSCI's Climate VAR framework is a method for quantifying the % impact on a portfolio's valuation from each type of risk under various transition and physical scenarios. MSCI's Low Carbon Transition Risk figures below include the aggregate policy costs and risks faced by our portfolio companies due to their emissions profile, and nets out positive green revenue and patent opportunities associated the companies' technologies. MSCI's scenarios vary by temperature targets and the "pathways" to achieve such temperature targets, and reflect assumptions and approaches employed in different Integrated Assessment Models (IAMs). For the figures reported below for the DWA Environment Strategy portfolio, we use a 2°C scenario produced by the AIM/CGE 2.0 Integrated Assessment Model that is characterized by mitigation action starting in 2020. MSCI ESG Research's physical risk analysis assesses changes in global temperatures, precipitation levels as well as flooding and cyclones due to climate change by relying on the past 35 years of observed extreme weather to set a historical baseline. The numbers in the table illustrate the change in the physical risk exposure from today's climate until 2100. All figures below are for the Environment Strategy's Weighted Average 2021 portfolio holdings.

| Scenario | DWA ES | S&P500** | MSCI SRI** | MSCI World*** |
|------------------------------|--------------|--------------|---------------|---------------|
| Low Carbon Transition Risk | -1.1% | -2.4% | -1.5% | -3.3% |
| Physical Climate Risk | -4.9% | -7.5% | -8.5% | -10.8% |
| Aggregate Climate VaR | -6.0% | -9.9% | -10.0% | -14.0% |

*Weighted average holdings from 01.01.2021 to 12.31.2021

**Holdings as of 12.31.2021

***Holdings as of 03.08.2022

Source: MSCI

Per MSCI's methodology, the total impact on our portfolio from climate transition risk (policy risk offset by technology opportunities) is **-1.1%**. The largest contributor on a weighted basis was **Waste Management (WM)**. The net transition VaR for WM was -30%, caused by their high Scope 1 emissions of 16.08mt CO₂/year in 2020. To align with a 2°C global emissions scenario, MSCI estimates that WM needs to reduce their scope one emissions by 15.69 CO₂/year (or 99.63%) by 2036, incurring a cost of 7.9mn/year by 2036.

The total impact on our portfolio from physical risk was -4.9%. On a weighted basis, the biggest driver was **Costco**, which had a physical climate VaR of -22.27% due to high exposure to extreme heat (-12.39%) and Precipitation (-9.66%). Several of their facilities and locations are in regions considered to have high heat exposure (such as Taipei City, Ottawa and Issaquah) and precipitation risk (Naucalpan de Juárez, Taipei City, Issaquah).

As noted in the table above, our Aggregate Climate VaR is **-6.0%**, lower than all three of our reference indexes, meaning that, per MSCI's methodology, our 2021 portfolio was less exposed to climate risk than the constituents of those indexes as a whole, which range from **-9.9%** to **-14.0%** depending on the index.

5. Science Based Targets and Net Zero Commitments:

The Science Based Targets Initiative (SBTi) — a partnership between CDP, the United Nations Global Compact, World Resources Institute and the Worldwide Fund for Nature — serves as a third-party assessor for validating whether a company's emissions reduction targets align with the Paris Agreement, meaning they are consistent with a pathway to maintaining warming below 2°C. In October 2021, SBTi further initiated the more stringent Net-Zero Standard. Findings on the target status of our portfolio companies follow:

| Metric | DWA ES* | DW ES by % of portfolio | S&P500** |
|---|---------|-------------------------|----------|
| % of companies with approved SBT | 32.4% | 26% | 19.0% |
| % of companies with committed SBT | 37.8% | 40% | 10.0% |
| % of companies with Net Zero Commitments as defined by SBTi | 37.8% | 33% | NA |

* Holdings from 1.01.2021 to 12.31.2021

** as of October 2021

Source: <https://sciencebasedtargets.org/>; Morgan Stanley Research

- Across 2021, 28 (70%) of the companies in the Environment Strategy portfolio fulfilled at least one of the SBTi categories.
- 12 of our companies (32.4%) had “approved targets” (or 26% by weighting), meaning their targets were independently validated by the SBTi; this was substantially higher than the 19% of S&P 500 companies that met a comparable standard, even though over two-thirds of S&P 500 companies were considered to have some form of emissions reduction targets. Adjusted by weighting, 26% of our portfolio had approved targets.
- 14 (37.8%) of our portfolio companies had “committed targets” (or 40% by weighting), meaning they had committed to setting a SBT within 24 months. This was ~4x the number of companies in the S&P 500 that met a comparable standard.
- 14 (37.8%) of our companies had committed to the more stringent Net Zero Standard (or 33% by weighting), which means that they had committed to reducing all their GHG emissions at a rate consistent with reaching net-zero emissions at the global or sector level in alignment with a 1.5°C pathway. This standard also covered Scope 3 emissions, which is often omitted from headline carbon neutral pledges. Scope 3 covers emissions in a company's full value chain, from its supplier base down to the post-sale phase when customers use their products. Many companies have resisted this extended responsibility for emissions reduction, which leads us to be especially appreciative that 14 of our companies have committed to this challenging standard.

6. Implied Temperature Rise:

MSCI has not yet provided client use of their Implied Temperature Rise Calculator^{xxxvii} for portfolio assessment, but we asked them to run the Environment Strategy portfolio for us, and the results were as follows:

- To limit global warming to 2°C, the emissions budget allocated to our portfolio is 3998.34 tCO₂e. Based on the current emissions trajectory and respective reduction targets of our companies, our portfolio is overshooting that budget by 1137.06 tCO₂e (28%).



- Using a Transient Response to Cumulative CO2 Emissions (TCRE) factor of 0.000545 °C/GtCO2e, which is the per unit increase in temperature over 2°C caused by each additional unit of additional emissions, our portfolio is associated with an Implied Temperature Rise of 2.23°C.
- A fund's Implied Temperature Rise measures, in aggregate, a fund's temperature alignment (in °C) to keeping the world's temperature rise to 2°C by 2100. Our Strategy's ITR of 2.23°C indicates that, based on MSCI's tool, our portfolio is exceeding its proportional share of the global carbon budget, and if everyone exceeded their fair shares by a similar proportion, the result would be a global temperature increase of ~2.23°C by 2100.
- When all the formal national commitments for emissions reductions through 2030 were tallied as of the Glasgow climate talks in December of 2021, estimates put the world on a trajectory of a 2.4°C temperature increase, lower than the 2.7°C projected based on commitments beforehand, but still well into the danger zone.^{xxxviii} In other words, our Environment Strategy, while still consistent with a problematic overshoot of the 2C target, may nonetheless be an improvement when compared to the worldwide trajectory. We are also still assessing the extent to which MSCI's ITR tool captures our portfolio's full mitigation impact through its provision of solutions, for example. Nonetheless, we look forward to using this and other emerging tools to help inform our investment decision-making as well as prioritization of engagement targets and asks within our active ownership program.

7. EU Sustainable Finance Regulations: The EU Taxonomy, NFRD/CSRD, SFDR and PAIs:

The EU's Sustainable Finance Regulations have been advancing rapidly in recent years and implementation of its complementary parts are rolling out in stages. They are complex and voluminous so the following is only a brief overview:

1. **The EU Taxonomy:** a classification system for translating the EU's environmental goals, including 2050 carbon neutrality, into detailed sector-specific screening criteria that validate whether an activity is making a "substantial contribution" to one of six key objectives (including climate change mitigation and adaptation) while doing "no significant harm" to the others. The Taxonomy criteria are being cross-referenced by a set of rules being rolled out in stages to govern sustainability disclosures by both companies and asset managers as noted below;^{xxxix}
2. **Non-Financial Reporting Directive (NFRD) and Corporate Sustainability Reporting Directive (CSRD):** The NFRD and its more stringent successor, the CSRD (which is still in "proposed" status) require companies to disclose which of their activities are eligible for classification under the EU Taxonomy and furthermore what proportion of their sales and expenditures (operational and capital)^{xl} meet the relevant quantitative criteria; and
3. **Sustainable Finance Disclosure Regulation (SFDR):** This multi-faceted rule that is rolling out in stages beginning March 2021 and mandates that asset managers offering financial products make certain disclosures, including what portion of their underlying corporate holdings are Taxonomy compliant, thereby enabling clients to make more informed sustainable investing choices. However, the ability of asset managers to comply with the SFDR depends on whether companies they hold in their portfolio comply with the NFRD and emerging CSRD, specifically whether they are disclosing their taxonomy-alignment. EU domiciled companies are still in the process of assessing and reporting their taxonomy aligned revenue, therefore many EU-based asset managers have stated there is insufficient data to report taxonomy alignment.

The Douglass Winthrop Environment Strategy is not an EU-based asset manager and is not under legal mandate to comply with the SFDR. However, we intend to monitor the EU's evolving program and to consider voluntary disclosures aligned with it over time. Based on MSCI's



tools for estimating EU Taxonomy alignment at this preliminary stage, **10.9%** of the revenue of the DWA Environment Strategy's 2021 holdings were EU Taxonomy aligned.

The SFDR also required managers self-categorize as one of the following:

- Article 6 strategies: no sustainability objective
- Article 8 "light green" strategies "promote, among other characteristics, environmental or social characteristics, or a combination of those characteristics, provided that the companies in which the investments are made follow good governance practices"
- Article 9 "dark green" strategies: "have sustainable investment as its objective or a reduction in carbon emissions as its objective"

Since there is not yet clear policy guidance for strategy classification, current reporting is self-defined. At the end of December 2021, Morningstar estimates that 5,862 (25.2%) funds are classified as Article 8 and 797 (3.4%)^{xii} as Article 9. While DWA is not a European investment manager and thus not under the regulation of SFDR, we will explore whether to characterize our offering as an Article 8 or 9 strategy.

The SFDR also requires specific entity-level and product-level level disclosures from qualified Financial Market Participants called *Sustainability Risks and Principal Adverse Impact Metrics (PAIs)*. To address Sustainability Risks, asset managers must establish a policy on the integration of sustainability risks. For PAIs, managers must consider their impact on investment decisions and report related indices. Further clarification of the regulation as well as the timelines for implementation are ongoing.

Douglass Winthrop Advisors is not subject to this or other aspects of SFDR. On a voluntary basis, we have internally calculated estimates of Principal Adverse Impact Indicators for DWA Environment Strategy based on our understanding of the PAI formulas and the data reported for our companies by MSCI. Please see the Appendix for these PAI figures.

Appendix

1. DWA E-MAP vs SDGs

| | 1. Sustainable Transport | 2. Renewables, Storage & Grid 2.0 | 3. Food, Fisheries & Sustainable Ag | 4. Smart Buildings & Cities | 5. Water Quality and Efficiency | 6. Waste, Materials Circularity & Industrial Decarbonization | 7. Environmentally Related Human Health | 8. Sustainable Finance | 9. Sustainable Data |
|--------|--------------------------|-----------------------------------|-------------------------------------|-----------------------------|---------------------------------|--|---|------------------------|---------------------|
| SDG 3 | √ | | √ | | √ | | √ | √ | √ |
| SDG 6 | | | | | √ | | √ | √ | √ |
| SDG 7 | | √ | | | | | | √ | √ |
| SDG 9 | | √ | | √ | | √ | | √ | √ |
| SDG 11 | | | | √ | | | | √ | √ |
| SDG 12 | | | √ | | | √ | | √ | √ |
| SDG 13 | √ | √ | | √ | | | | √ | √ |
| SDG 14 | | | √ | | | | | √ | √ |
| SDG 15 | | | √ | √ | | √ | √ | √ | √ |

2. Principal Adverse Impact (PAI) Indicators for DWA ES

Below are the estimates of Principal Adverse Impact Indicators that we have estimated for the DWA ES.

| Environmental EU SFDR Adverse Impact Indicators and reporting metrics | | DWA ES | Coverage Ratio |
|--|--|--------|----------------|
| 1. GHG Emissions | Scope 1 GHG emissions (tCO ₂ e): Measures the carbon emissions for which an investor is responsible by their equity ownership | 2,671 | 99% |
| | Scope 2 GHG emissions (tCO ₂ e): Measures the carbon emissions for which an investor is responsible by their equity ownership | 508 | 99% |
| | Scope 3 GHG emissions (tCO ₂ e): Measures the carbon emissions for which an investor is responsible by their equity ownership | 13,966 | 99% |
| | Total GHG emissions (tCO ₂ e) | 17,144 | 99% |
| 2. Carbon Footprint | Carbon footprint (t/EUR million invested): Measures the carbon emissions, for which an investor is responsible, per EUR million invested, by their total overall financing | 99 | 99% |
| 3. GHG Intensity of investee companies | GHG Intensity of investee companies (t/EUR million sales): Measures a portfolio's exposure to carbon-intensive companies, defined as the portfolio weighted average of companies' carbon intensity | 592 | 99% |
| 4. Exposure to companies active in the fossil fuel sector | Share of investments in companies active in the fossil fuel sector | 6.0% | 99% |



| Environmental continued | | DWA ES | Coverage Ratio |
|---|--|----------------------|----------------|
| EU SFDR Adverse Impact Indicators and reporting metrics | | | |
| 5. Share of non-renewable energy consumption and production | Share of non-renewable energy consumption and non-renewable energy production of investee companies from non-renewable energy sources, expressed as a percentage | 63.4% | 87% |
| 6. Energy consumption intensity per high impact climate sector | Energy consumption in GWh per million EUR of revenue of investee companies, per high impact climate sector | See last table below | 99% |
| 7. Activities negatively affecting biodiversity-sensitive areas | Share of investments in investee companies with sites/operations located in or near to biodiversity-sensitive areas where activities of those investee companies negatively affect those areas | 0% | 99% |
| 8. Emissions to water | Tonnes of emissions to water generated by investee companies per million EUR invested, expressed as a weighted average | 2.58 | 12% |
| 9. Hazardous waste ratio | Tonnes of hazardous waste generated by investee companies per million EUR invested, expressed as a weighted average | 0.03 | 34% |

| Social | | DWA ES | Coverage Ratio |
|---|--|--------|----------------|
| EU SFDR Adverse Impact Indicators and reporting Metrics | | | |
| 10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises | Share of Investments in investee companies that have been involved in violations of the UNGC principles for OECD Guidelines for Multinational Enterprises | 0 | 99% |
| 11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises | Share of investments in investee companies without policies to monitor compliance with the UNGC principles or OECD Guidelines for Multinational Enterprises or grievance /complaints handling mechanisms to address violations of the UNGC principles or OECD Guidelines for Multinational Enterprises | 46.0% | 99% |
| 12. Unadjusted gender pay gap | The difference between the average gross hourly earnings of male and female employees as a percentage of male gross earnings | 17.6% | 34% |
| 13. Board gender diversity | Average ratio of female to male board members in investee companies | 52.6% | 99% |
| 14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons) | Share of investments in investee companies involved in the manufacture or selling of controversial weapons | 0 | 99% |



| Sovereign | | | |
|---|--|---------|----|
| EU SFDR Adverse Impact Indicators and reporting Metrics | | | |
| 15. GHG intensity | GHG Intensity of investee countries | No data | NA |
| 16. Investee countries subject to social violations | Number of investee countries subject to social violations (absolute number and relative number divided by all investee countries), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law | No data | NA |

| Real Estate | | | |
|---|--|---------|----|
| EU SFDR Adverse Impact Indicators and reporting Metrics | | | |
| 17. Exposure to fossil fuels through real estate assets | Share of investments in real estate assets involved in the extraction, storage, transport or manufacture of fossil fuels | No data | NA |
| 18. Exposure to energy-inefficient real estate assets | Share of investments in energy-inefficient real estate assets | No data | NA |

Source: MSCI

6. Energy consumption intensity per high impact climate sector

| | |
|--|-------|
| A - Agriculture, forestry and fishing | 0 |
| B - Mining and quarrying | 0 |
| C - Manufacturing | 0.038 |
| D - Electricity, gas, steam and air conditioning supply | 0.030 |
| E - Water supply; sewerage; waste management and remediation activities | 0.040 |
| F - Construction | 0.030 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.026 |
| H - Transporting and storage | 0 |
| L - Real estate activities | 0 |



3. The DWA E-Map and 2021 Holdings in the Environment Strategy

| | 1. Sustainable Transport | 2. Renewables, Storage & Grid 2.0 | 3. Food, Fisheries & Sustainable Ag | 4. Smart Buildings & Cities | 5. Water Quality and Efficiency | 6. Waste, Materials Circularity & Industrial Decarbonization | 7. Environmentally Related Human Health | 8. Sustainable Finance | 9. Sustainable Data |
|--------------------|--------------------------|-----------------------------------|-------------------------------------|-----------------------------|---------------------------------|--|---|------------------------|---------------------|
| Amazon | √ | √ | | | | | | | |
| ASML | | | | | | | | | √ |
| Aptiv PLC | √ | | | √ | | | | | |
| Nike | | | | | | √ | | | |
| Starbucks | | | √ | √ | | √ | | | |
| Costco | | | √ | | | | | | |
| L'Oreal | | | √ | | | √ | √ | | |
| Alphabet | √ | √ | √ | √ | | | √ | | √ |
| New York Times | | | | | | | | | √ |
| Danaher | | | √ | | √ | | √ | | |
| Thermo Fisher | | | √ | | √ | | √ | | |
| Generac | | √ | | | | | | | |
| Trane Technologies | | | √ | √ | | | | | |
| Schneider Electric | | √ | | √ | | √ | | | |
| Siemens | √ | | | √ | | √ | | | |
| Waste Management | √ | √ | | | | √ | | | |
| Xylem | | | | | √ | | √ | | |
| Apple | | | | | | √ | √ | | |
| Autodesk | | | | √ | √ | √ | | | |
| Salesforce | | √ | | | | | | | √ |
| Microsoft | | √ | √ | | | | | | √ |
| SolarEdge | | √ | | | | | | | |
| Taiwan Semi | | | | | | | | | √ |
| Trimble | √ | | √ | √ | √ | | | | |
| AON Plc | | | | | | | | √ | |
| Moody's | | | | | | | | √ | |
| S&P Global | | | | | | | | √ | |
| NextEra Energy | | √ | | | | | | | |
| Hannon Armstrong | | √ | | √ | | | | | |
| Veolia | | | | | √ | √ | √ | | |
| Novozymes | | | √ | | √ | | √ | | |
| Tesla | √ | √ | | | | | | | |
| MSCI | | | | | | | | √ | |
| Equinix | | √ | | | | | | | √ |
| Unilever | | | √ | | | √ | √ | | |
| Ecolab | | | | | √ | | √ | | |
| Beyond Meat | | | √ | | | | √ | | |



4. MSCI EU Taxonomy Methodology

Exhibit 1: EU Taxonomy Environmental Objectives v. MSCI Sustainable Impact Metrics Environmental Impact Themes

| EU Taxonomy Environmental Objectives | MSCI Sustainable Impact Metrics: Environmental Impact Solutions |
|--|---|
| Climate Change Mitigation | <ul style="list-style-type: none"> • Alternative Energy • Carbon Energy and Efficiency • Green Building • Sustainable Agriculture (e.g. forest management, no-deforestation provisions) |
| Climate Change Adaptation | <ul style="list-style-type: none"> • Alternative Energy • Carbon Energy and Efficiency • Green Building • Sustainable Water (e.g. drought resistant seeds) |
| Sustainable Use and Protection of Water and Marine Resources | <ul style="list-style-type: none"> • Sustainable Water • Pollution Prevention & Control |
| Transition to a Circular Economy | <ul style="list-style-type: none"> • Sustainable Water • Pollution Prevention & Control (e.g. recycling) |
| Pollution Prevention and Control | <ul style="list-style-type: none"> • Pollution Prevention & Control • Sustainable Water |
| Protection and Restoration of Biodiversity and Ecosystems | <ul style="list-style-type: none"> • Sustainable Water • Sustainable Agriculture • Pollution Prevention & Control |

*Source: MSCI

ⁱ <https://www.bloomberg.com/graphics/2021-what-is-esg-investing-msci-ratings-focus-on-corporate-bottom-line/>

ⁱⁱ The Wall Street Journal, citing Morningstar data, noted that a record 25 existing funds were re-branded as “sustainable” last year as a way to cash in on the record inflows to ESG funds last year. See: <https://www.wsj.com/articles/funds-go-green-but-sometimes-in-name-only-11631179801>

ⁱⁱⁱ https://www.douglasswinthrop.com/DWA-Environment-Strategy-Q2-2021-Letter-to-Clients-and-Friends_final.pdf

^{iv} https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_1806



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- vi <https://www.ipcc.ch/report/ar6/wg2/resources/press/press-release/>
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