January 11, 2023

Dear Sustainable Equity Strategy Clients and Friends:

Apparently sensing our collective crisis fatigue, CNN launched a nifty "good news generator"[1] to close out 2022. Click on the sunshine-gold smiley face and, after a performative delay implying supercomputers at work, it serves up story after story about humans being good to each other and sometimes to the Earth. Though uplifting, everything about the device makes the stories feel like anecdotal exceptions – a wink enticing momentary escape from reality.

Before CNN's tool was released, our internal sustainability good news generator was humming through 2022 despite the market pullback. We'll discuss the pullback below, but taking a cue from CNN we begin with a round-up of good news we registered in 2022. Many of these developments appear more pivotal and enduring than CNN's anecdotes. Taken together, we believe they have the makings of a tipping point toward global decarbonization…and an accelerator of the secular drivers and companies in which the Sustainable Equity Strategy invests.

As often happens, bad news has been an important, if painful, catalyst for creation of something better. The profoundly bad news of Putin's invasion spurred a short-term race to replace lost oil and gas supply and to keep coal plants open longer, driving 2022 greenhouse gas emissions from fossil fuels up to record levels.[2] But the war also distilled why fossil fuel dependence is a losing game, making investments in renewables, efficiency and innovation the superior long-term choice for building prosperous and resilient economies. On to our round-up:

- A Breakthrough U.S. Climate Law: The Inflation Reduction Act (IRA), enacted in August, allocates $369 billion in climate tax credits and spending to electric vehicles, solar power, battery storage, heat pumps and energy efficient buildings – and bringing the U.S. objective of halving emissions (below 2005 levels) by 2030 within reach.[3] Wind and solar PV investment in the U.S. are projected to double to $321 billion/year in 2030 compared to what it would have been in that year.[4] Altogether the paradigm-shifting law is projected to drive a cumulative $3.5 trillion in investment, mostly private, over the next decade, benefitting our holdings Trane, SolarEdge, Generac, NextEra, Aptiv, Siemens and Goldman Sachs' Renewable Power Group.

- Reshoring of Sustainability-Enabling Chipmaking: In August, the U.S. CHIPS act authorized $52.7 billion for semiconductor manufacturing, prompting Taiwan Semiconductor (TSM) to triple its US investment to $40bn and to add a second, advanced chip plant to its coming Arizona footprint.[5] The CHIPS Act is also likely to boost demand for ASML's semiconductor lithography equipment. TSM and ASML are highly profitable, widely moated, market-share dominating beneficiaries of our thesis that digital intelligence will enable transformational sustainability innovations across nearly all sectors – from congestion-reducing autonomous cars powered by Alphabet's Waymo and Aptiv's Motional to precision agriculture innovations offered by Deere and Trimble. (Unlike activist investors urging Alphabet to stop investing in Waymo[6], we value its 2022 progress in offering "flawless"[7] *rider-only* rides through challenging city environments and the opportunity to own a significant share of the ~$200bn autonomous vehicle market in 2030.[8])

- Clean Infrastructure: Spending under last November's $1.2 trillion infrastructure began to flow in 2022, toward clean drinking water, mass transit, EV charging and new power grid extensions to connect to renewables. We expect to see increasing benefits in the coming years of this historic public spending surge to Danaher's Trojan UV drinking water business[9], Autodesk's Innovyze unit enabling water utilities to optimize their spending[10], Siemens' U.S. businesses in rail, power grids and EV chargers, and United Rentals' #1 rental equipment business serving roads, bridges, rail and power utilities.

- EU Reducing Fossil Fuel Dependency: Prompted by the war and energy crisis, the European Union launched *REPowerEU* to "make Europe independent from Russian fossil fuels well before 2030".[11] The plan includes cutting red tape to accelerate permitting of renewable energy projects, replacing fossil fuel use in industry and setting higher efficiency targets. By Q3 of 2022, Europe's natural gas consumption had fallen 20% below its 5-year average[12] through all-hands-on-deck energy conservation initiatives[13], a 50% increase in solar deployment as an energy crisis "lifeline"[14] and supercharged demand for heat pumps[15] that use electricity instead of gas. These trends are poised to continue benefitting **Schneider Electric**[16], **SolarEdge**[17], **Trane** and **Siemens**.

- A Win for the Amazon: In October, Luiz Inácio Lula da Silva won Brazil's presidential runoff over incumbent Jair Bolsonaro, under whom Amazon deforestation had spiked 60%. Lula said he would "do whatever it takes" to achieve zero deforestation[18] and intends to use fines, police power and conservation funding to slow the loss of this carbon sink and biodiversity hotspot. Lula will get help from the EU's just-enacted rule against importing commodities produced through deforestation,[19] as well as from multinational corporations that are doing more to clean up their supply chains in response to expectations from customers, employees and other stakeholders. We strive to invest in companies that move ahead of peers and regulations to protect the rainforest and their brand reputations through sustainable sourcing. **L'Oreal**, for example, uses 1,717 raw materials from 313 plant species, 94% of which are traceable and none of these are reportedly linked to deforestation.[20] **Nike**, a leader in circular design[21] has cut its virgin leather use, and therefore cattle ranching pressure on the Amazon, by 50% through its FlyLeather material.[22]

- Australia Pivots to Climate Action: In May 2022, Australians exhausted by years of record wildfires made climate change a key voting issue[23] by choosing Anthony Albanese, who had pledged to nearly double Australia's 2030 target for cuts to carbon emissions, over an incumbent who had resisted climate action. By September, meaningful reduction targets and a 2050 net-zero target had been enshrined in binding legislation.[24] In 2022 we assessed leading equipment suppliers bringing electrification, autonomy and efficiency to the mining supply chain in Australia and around the world, given that copper, bauxite and other commodities are crucial in the transition to a low-carbon economy. Our research continues…

- U.S.-China Re-Engage on Climate: Perhaps the most crucial development in November's UN climate talks in Egypt occurred 6,000 miles away in Indonesia, where Presidents Biden and Xi Jinping met for three hours on the sidelines of the G20 summit and "signaled their return to a cooperative stance on climate"[25] only months after Pelosi's summer visit to Taiwan prompted China to break off climate talks and launch military drills in the Taiwan Strait. The favorable reversal, and cordial tone, surprised many observers, but not us given our prior conviction that *economic* deterrence to an invasion is more robust than recognized, and that the two parties have a strong mutual interest in a stable global economy and climate in which to pursue their intensifying ideological competition. This conviction underpins our position in **Taiwan Semiconductor (TSM)**, along with its stellar 53% earnings growth through the reported nine months of 2022. Warren Buffett appears to agree and added TSM to the Berkshire Hathaway portfolio in Q3 of 2022, just over a year after we did.[26]

- Cleantech Advancing: Solar construction costs dropped 75% from 2010 through 2021, according to the Department of Energy's fall report.[27] This virtuous cycle of cumulative unit growth driving down renewable costs helped propel **NextEra's** solar development pipeline to record levels and boosted **SolarEdge**. As for the fusion headlines, the U.S. National Lab breakthrough in inertial confinement fusion was encouraging but perhaps overdrawn in light of its less reported limitations.[28] Alternative paths such as magnetic confinement are also making progress[29] and there is an increasing chance that fusion will be scaled up commercially in the post-2050 timeframe. Meanwhile, we continue to invest in companies allocating a material share of cash flow to innovation, whether through R&D, minority stakes in disruptors, or business acquisitions. Through our DWA E-Map, we monitor breakthroughs that could disrupt or reinforce each of our holdings, from flexible perovskite solar cells that need no silicon[30] to low-cost electrolyzers producing green hydrogen[31] to vehicle-to-grid technology[32] to small modular nuclear reactors[33] to the eco-implications of AI and quantum computing.[34] Bottom line: sustainability is "game on" for reinvesting in human ingenuity.

- Good Climate News…Relatively Speaking: David Wallace-Wells, author of a cautionary 2019 book on climate change[35] improved his prognosis in October, saying experts now regard the worst-case scenario of a 4-5C temperature increase by the end of this century as less likely than a 2-3C increase.[36] This is due to big progress on national policies, corporate behavior and technology innovation. At 1.2 degrees C above pre-industrial levels, Earth is already warmer than it has been in the history of human civilization, and the 2-3C projection would take us yet further into the danger zone. But as with the war, it's the bad news that birthed the good, in this case the bad news of intensifying climate impacts. Mega-droughts and drying riverbeds from the Colorado to the Danube to the Yangtze, record-breaking floods, heatwaves, and wildfires have energized public awareness and pressured policy-makers and companies to take stronger action.[37] An astonishing 90% of U.S. counties have experienced a weather disaster in the past decade,[38] creating a backstop of public support for this year's policy and corporate advances and reducing the chance they will be reversed.

Performance: So With all that Good News, Why the Pullback?

A single calendar year is a short and arbitrary timeframe for evaluating any investment strategy, which is why we've long counseled clients to join us in maintaining a long-term view. As shown below, our performance over the six years since inception is well ahead of all reference indexes. But given the convention for annual reporting, here are some thoughts on why our portfolio pulled back in 2022:

- Digesting gains: The Sustainable Equity Strategy entered 2022 having generated five years of 25.14% (gross) / 24.11% (net) annualized returns. Since that kind of compounding cannot plausibly continue without interruption, we understood and advised clients that a healthy correction to digest gains was inevitable. We did harvest gains through selective sales, trims and portfolio-wide rebalances along the way, but this did not preclude general exposure to a correction, for which 2022 then supplied a number of catalysts…

- Putin's War and our Oil and Gas Exclusion: After a decade of flat performance, the equities of oil majors surged with the oil price after the war began in February. Our exclusion of companies with fossil fuel reserves therefore weighed on our relative returns in 2022. Notably, the price of oil has subsided and by the end of 2022 was back near where it started the year (though not yet the equity prices of the producers, which remain elevated). This volatility can be profitable for short-term traders, sector rotators and speculators, but unduly risky and ill-advised for fundamental, long-term investors like us. We do not regret missing this rollercoaster, thrilling though it may have been. It's not what we do.

- Currency Effects: Putin's war caused a European energy crisis that rippled through industrial and consumer markets and weakened the Euro versus the US dollar, creating a headwind for our European-domiciled companies purchased through ADRs, which accounted for 2.5% in negative portfolio return in 2022. Their actual share of revenues generated *in* Europe ranged from only 3% to 39%, mitigating the damage. Our companies provide precisely those industrial automation, efficiency and electrification solutions that we believe are the best answer to the economic vulnerability Putin's war laid bare, so we expect tailwinds ahead. The dollar has also been giving back some ground vis-à-vis the Euro, which should normalize the effects on our portfolio over time. Meantime, Euro-denominated goods have grown more price competitive in global markets.

- End of Free Money Hits Long-Dated Cashflows: Macro came to the fore in 2022 with synchronized rate-tightening to combat 40-year high inflation. This punished equity markets with their worst returns since 2008. Companies with "long-dated" cash flows were most affected by the higher interest rates, including the secular compounders we favor precisely because they address environmental risks and opportunities expected to play out over the coming decade. Fortunately, we also select for strong *current* cashflow, high cash reserves and reasonable leverage that create resiliency to a potential 2023 recession. With that near-term margin of safety in hand, we certainly do not see the prospect of rising outyear cashflows as a negative even if the market (temporarily) decides to pay less for them today.

- **Post-Covid / Pre-Recession Technology Contraction**: Related to the prior point, our biggest sectoral detractors were in technology and communication services, in which our holdings returned a negative 13%, or about half of our pullback for the year. After their pandemic surge, the tech leaders were due to give some of their gains back as part of the market-wide de-rating in valuation multiples. Softening consumer and corporate spending caused revenue deceleration and gave some investors a catalyst to sell. We re-test and debate our theses and position sizes on each tech holding regularly, and assess emerging risks from saturation to regulation to competition. At this time we retain high conviction in their long-term runway and earnings power. Each is a cornerstone of the global economy, benefitting from dominant market share, network effects, and value-add cloud and AI strategies that are transforming healthcare, agriculture, transport and other industries, as well as massive cash balances that enable them to invest in their next leg of growth. Notably our biggest sectoral overweight was, and remains, industrials, not technology.

- **Generac pullback:** Our biggest single detractor in 2022 was Generac. Its stock had more than doubled in 2020 and rose another 55% in 2021, so like others in our portfolio, it was due to give some back, and did so in 2022. A negative catalyst was the bankruptcy of a key distributor of its new energy storage offering which, in turn is suing Generac for alleged flaws (in its batteries, not its standby generators, which remains its core business, in which it has 75% market share). Generac saw inventory buildup it ascribed to installer unavailability, which we've been assessing through channel checks. Since its products are often bought on credit, Generac was exposed to higher interest rates and concern about consumer softening. Analysts also touted an emerging competitive risk that homes will get their backup power from EVs in the future instead of generators. We are monitoring Generac's fundamentals, but our core thesis on the company regarding rising demand due to extended power outages from rising climate impacts is intact.

			Reference Indexes		
	DWA Sustainable Equity (gross)	**DWA Sustainable Equity (net)**	**MSCI SRI TR Index**	**S&P 500 Total Return Index**	**MSCI World TR USD Index**
Annualized Returns					
1Yr	-26.90%	-27.56%	-22.50%	-18.11%	-18.14%
3Yr	9.02%	8.06%	5.68%	7.66%	4.94%
5Yr	11.93%	10.93%	7.39%	9.42%	6.14%
Inception	14.57%	13.52%	9.94%	11.40%	8.69%
Cumulative Returns					
1Yr	-26.90%	-27.56%	-22.50%	-18.11%	-18.14%
3Yr	29.58%	26.18%	18.01%	24.79%	15.58%
5Yr	75.67%	67.94%	42.84%	56.88%	34.70%
Inception	126.22%	113.96%	76.60%	91.14%	64.87%

Please Note: Past performance is no guarantee of future results.

In 2022 we initiated seven new positions and executed six sales. Five of our seven buys were positive contributors to performance in an otherwise down year: United Rentals, Deere, Ball Corp, Goldman Sachs and Canadian National Railway. Along with SolarEdge and Aon, those five buys made up the top seven performers in the portfolio for 2022.

In Q3, we initiated a position in Ball Corp., the global market leader in aluminum beverage can production with over 40% share in key markets. We believe that Ball's long-term secular growth potential is underappreciated by the market. Governments, beverage producers and end consumers are increasingly demanding sustainable alternatives to plastic. Due to its high recycling rate and end commodity value, aluminum cans have a net recycling cost that is 4x/6.75x lower than plastic/glass respectively. Cans are winning new launches in ready-to-drink and carbonated soft drink categories and the still water category remains largely white space for Ball. We appreciated management's decision in 2022 to reduce capex and refocus on utilization rate and cash generation, and believe it is well positioned to grow earnings at a 10-15% CAGR in the coming years. We had been learning about Ball for years, including hosting the management team at DWA offices years ago and meeting with Ball's Chairman in mid-2022. The 45% sell off early in 2022, due in part to its since-divested Russia exposure, created an attractive entry point.

In sum, 2022 was a year of interacting crises: war, inflation, pandemic endgame, commodity volatility, and a consequent pullback across asset classes. Navigating such turbulence requires a steady compass. Ours is to invest in fundamentally sound businesses with dominant market shares today that are also well positioned for a tomorrow that we expect to be more clean, resilient, distributed, electric, intelligent, autonomous, precise, efficient and transparent. We strive to invest in all-weather companies that have the pricing power to withstand inflation and the balance sheets to withstand recessions…as well as the stagflation combination that may lie ahead this year. We augment our assessment of economic fundamentals with a competitive edge in assessing environmental risks and opportunities. As covered in this letter, these include regulatory progression, technology disruption, physical climate risks and mounting consumer expectations regarding sustainability and climate performance. This year's pullback has made our portfolio company valuations even more compelling, offering an attractive entry point, in our estimation, for new capital into existing or new accounts.

We continue to engage our portfolio companies on impact and sustainability performance and how this bears on shareholder performance, and will once again vote client proxies in 2023 for strong climate and sustainability accountability. We will provide an update on these activities in our 2022 Impact Report, to be issued in Q2. Please also note that we have adjusted our portfolio guidelines to lift our non-U.S. and ADR exposure limit from 30 to 35%, enabling us to take greater advantage of compelling global opportunities that our research is surfacing.

Thank you, as always, for your confidence in us to steward your capital. Please reach out to Mary Kush (mary@douglasswinthrop.com) or Dan Abbasi (dan@douglasswinthrop.com) if you would like to set up a call for any reason, and also kindly let us know if you think of others who might be interested in hearing about this Strategy.

Best regards,

The Douglass Winthrop Team

Please see endnotes and important disclosures on the following page.

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