Global Sustainable Outcomes update: Q4 2023

Global equities | February 2024

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Another tumultuous year for markets has come to an end. We began 2023 with a financial crisis in the US following the collapse of Silicon Valley Bank and ended with fresh conflict in the Middle East. Although US interest rates ended the year broadly flat year-on-year, there was huge volatility in between. The US 10-year rate hit 5% in October before dropping to 3.9% by year end after the US Federal Reserve signalled a pivot from rate hikes to rate cuts in 2024.[1]

Global economic growth proved to be far more resilient than expected. When combined with falling inflation, this led to a shift in global economic outlook from one of recession to a consensus view of a “soft landing”. This boosted performance in more cyclical sectors like global industrials and materials over the fourth quarter, supporting performance of the Columbia Threadneedle Sustainable Outcomes Global Equity (CTSOGE) strategy, which is overweight both sectors.

2023 also saw a welcome return of structural growth investment themes driving market performance, with innovation on clear display throughout the year. On Christmas day 2022, my teenage nephew showed me the wonders of ChatGPT. Little did I know just how transformative generative AI (artificial intelligence) would be for technology companies over 2023 (Figure 1).

Enthusiasm around the growth potential of technology companies exposed to generative AI captured the market’s attention. In particular after Nvidia[2], a long-term holding in the strategy, dramatically raised its growth outlook for its AI processors, sending company earnings forecasts up by about 350% and shares up 239% over the year.[3] Increased investment in AI technology supported a broad earnings growth recovery across IT companies. Alongside a rebound in

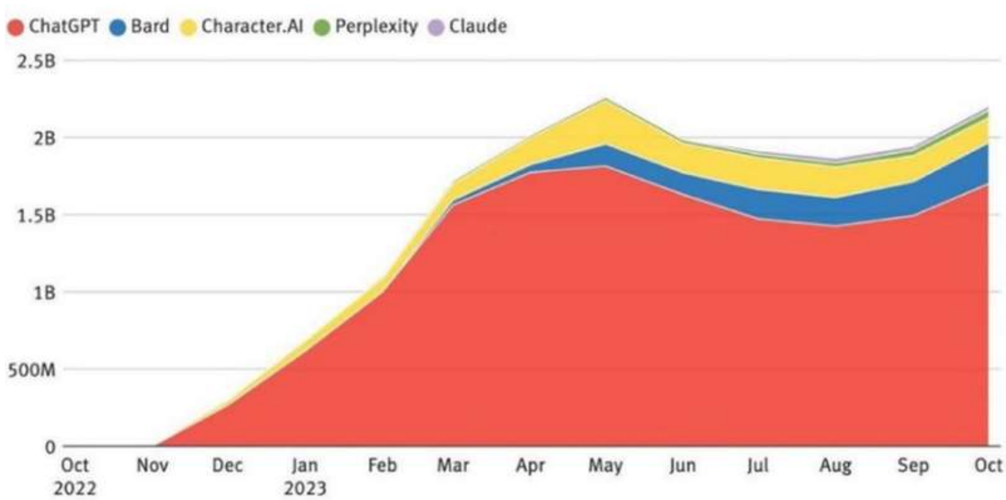
[1] Bloomberg, January 2024

[2] Mention of specific companies is not a recommendation

[3] Bloomberg, January 2024

valuations, this sent the sector up 55% over 2023 – more than reversing 2022's dismal fall of 34% and delivering its strongest performance in more than 20 years.[4]

Figure 1: AI chatbots exploded in popularity in 2023 (monthly web visits)



Source: SimilarWeb, 2023. Figures show monthly website visits (does not include apps or integrated chatbots)

As we enter 2024, we remain excited about the positive sustainable contribution AI technology can deliver for both society and the environment. Key benefits include AI tools supporting increased worker productivity at a time of growing labour shortages, and greater and more rapid innovations, particularly in healthcare. However, a key focus of our 2024 engagements will be what policies our technology holdings are introducing to responsibly develop AI technology.

Another structural theme that drove markets in 2023 were the GLP-1 obesity treatments launched by Novo Nordisk and Eli Lily, both holdings in the strategy. Trial data from Novo Nordisk demonstrated greater-than-expected positive health outcomes in obese patients using these drugs. This further supported share price performance, making a positive contribution to sustainable outcomes. In fact, excitement around these drugs temporarily surpassed the AI frenzy. Investors quickly extrapolated the implications of a "thinner world", especially in the US where 42% of the adult population is deemed clinically obese.[5]

These structural investment themes supported stronger than expected earnings growth across several of our holdings within the CTSOGE strategy, which rose 26.5% over 2023 versus 22.8% for the MSCI ACWI.[6]

Sadly, 2023 also saw the world's social and environmental challenges worsen. Although global rates of inflation slowed through the year, higher prices of key things such as food and shelter have clearly weighed on society, with those in poorer countries hit hardest. This, combined with

[4] Bloomberg/Columbia Threadneedle Investments' analysis, January 2024

[5] US Department of Health and Human Services, 2020

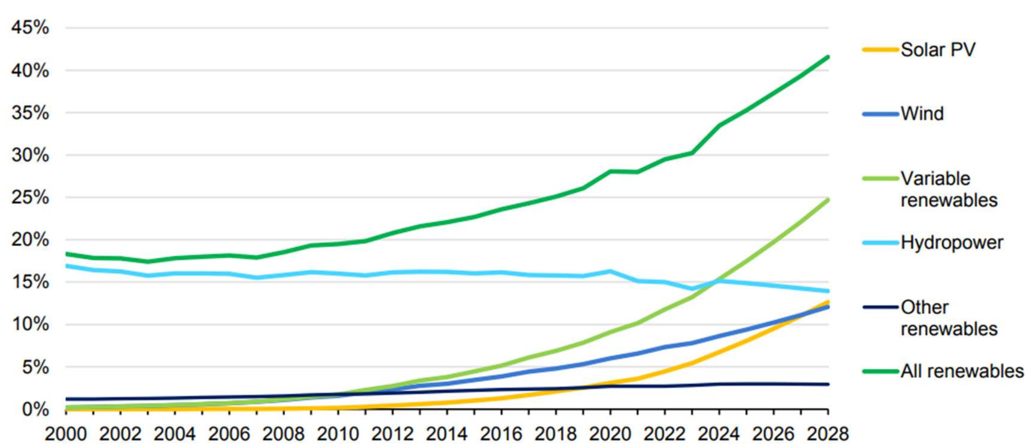
[6] Columbia Threadneedle Investments, as at January 2024

rising conflict and growing environmental disasters related to climate change, has seen global poverty trends rising over the past three years.

Global temperatures also hit new highs as El Nino combined with climate change to powerful effect. 2023 saw the world crossing into a new climate era – an age of "global boiling" as UN Secretary General António Guterres called it[7] – with temperatures close to the critical threshold of 1.5C above pre-industrial levels.[8] Nearly half the year exceeded this limit and the world recorded both the hottest ever month, July, and a day when global temperatures reached 2C warming for the first time ever, 17 November. Sadly, this record heat meant another year of global environmental devastation, from summer fires in Europe and Canada to extreme drought across the normally lush Brazilian Amazon.

Nonetheless, there is hope. Dual country targets of energy security and decarbonisation saw global renewable capacity additions increase by almost 50% to nearly 510 gigawatts (GW), the fastest growth rate in the past two decades. This was led by solar energy, which accounted for 75% of this. Renewable energy capacity hit record levels in Europe, the United States and Brazil, but China beat them all, commissioning as many solar additions in 2023 as the whole world managed in 2022, as well as increasing its wind additions by 66%. As a result of stronger than expected renewable investment across the year, the International Energy Agency (IEA) revised up its global renewable forecast for 2024 and beyond. It now expects almost 3700GW of new renewable capacity to come online between 2023 and 2028. [9] This will be driven by greater policy support and improving economics of renewable energy.

Figure 2: renewables will account for more than 40% of global electricity generation by 2028



Source: IEA Renewables report, 2023. Electricity generation from wind and solar PV indicate generation including current curtailment rates. It does not project future curtailment, which may be significant by 2028.

[7] United Nations, Hottest July ever signals 'era of global boiling has arrived' says UN chief, 27 July 2023

[8] Copernicus Climate Change Service (C3S) report 2023

[9] IEA Renewables 2023 report

Despite this acceleration in investment, clean technology stocks had another disappointing year as the capital-intensive sector saw returns hit by a perfect storm of higher financing costs, materials inflation, and supply chain disruption, particularly for offshore wind projects. As a result, the two worst performing stocks in the strategy were renewable developers Orsted and NextEra Energy.[10] But with headwinds from higher financing and input cost inflation abating, we start 2024 cautiously optimistic for improved returns in the sector.

With more than 50% of the world's population voting in elections in 2024[11], we will be monitoring any shifts in government environmental policies, particularly regarding climate transition. The election in the United States poses a greater risk to environmental policies as a Republican win under Trump could see a rolling back of Biden's Inflation Reduction Act and a pulling out of the Paris climate accord.

However, with the economics of renewable energy becoming increasingly attractive – in 2023, 96% of new wind and solar plants offered cheaper power than existing fossil fuel facilities[12] – and a growing global consensus to transition away from fossil fuels, a Trump win will not derail what we believe is a multi-decade transition in global energy systems.

As the world faces increasing geopolitical risks and uncertain economic outlook, it is difficult to predict the trajectory of global markets in 2024. However, we are confident that companies that continue to innovate and find solutions to some of the world's biggest environmental and social challenges should enjoy superior growth and returns over the long term. These companies continue to be a focus of our investments.

COP28 and a growing consensus for fossil free energy

As another year of record high global temperatures drew to a close, world leaders gathered in Dubai for the COP28 climate summit. The key aim of the UN COP (Conference of the Parties) climate summits is to help inform countries in setting climate targets to meet the 2015 Paris Agreement goals of keeping global warming below 2C, and ideally 1.5C.

Ahead of COP28, the UN Environment programme released a report warning that even in the most optimistic scenario, whereby all countries meet their net zero pledges, there is only a 14% chance of keeping global warming below 1.5C. Although we have seen a greater global response to the climate crisis since Paris, current emission-cutting plans put the world on course for approximately 2.9C of global warming. If we are to limit warming to 1.5C or 2C, emissions need to fall by 28%-42% by 2030 compared with current policy scenarios.[13]

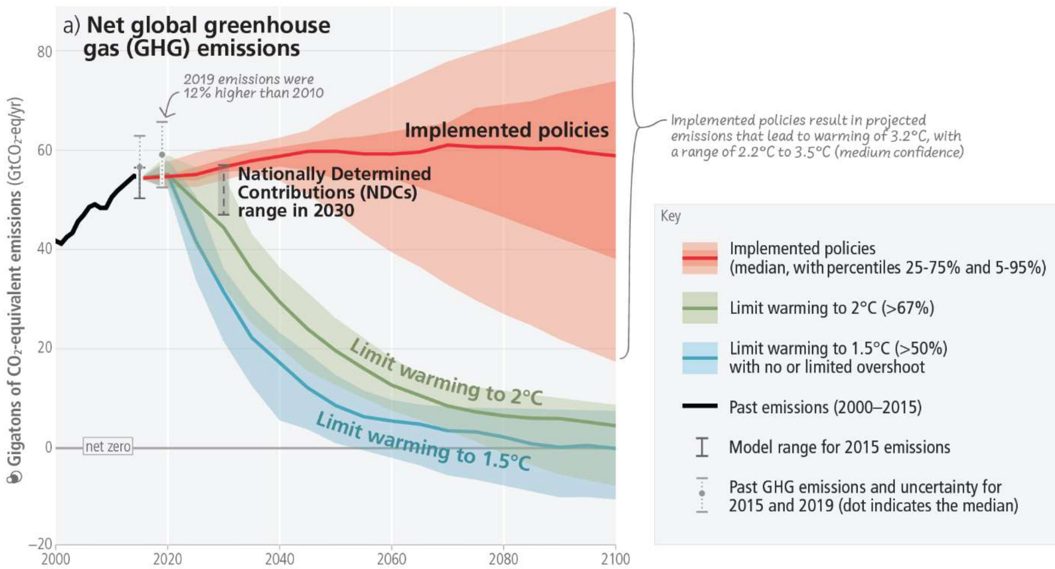
[10] Columbia Threadneedle Investments' analysis, January 2024

[11] Forbes, 2024 - The Great Test For Democracy As Over 50% Of The World Votes, 8 December 2023

[12] IEA, Renewables 2023 Executive Summary, January 2024

[13] IPCC, AR6 Synthesis Report, 2023

Figure 3: Limiting warming to 1.5C and 2C involves rapid and deep emissions reductions



Source: IPCC, AR6 Synthesis Report, 2023

This report set the scene for COP28's Global Stocktake (GST), which set out what countries are doing (or not doing) to meet the Paris goals. Although there were no significant announcements on individual countries' Nationally Determined Contributions (NDCs), the conclusion of the first GST led to a historic deal, reached, as usual, at the very last moment. This was the first COP to agree on transitioning away from fossil fuels in energy systems. Although the final wording was less ambitious than calling for a full phasing out, it is indicative of the growing international consensus for fossil-free energy systems.

More than 130 national governments agreed to work together to triple the world's installed renewable energy capacity to at least 11,000GW by 2030 and double the annual rate of efficiency improvements every year to 2030.[14] However, the ramp up in renewable investment is not without challenges, including higher costs of financing, supply shortages, slow permitting rates and red tape, and long backlogs of renewables waiting to connect to electric grids. Overall though, the commitment is bullish for the long-term outlook for clean technology investment. With the IEA forecasting record growth in renewable investment over the next five years, the world could be in with a chance of achieving its goal.

COP28 also acknowledged nuclear as a reliable, clean source of energy, with a key role to play in the energy transition through the provision of a reliable base energy load for electric systems. As a result, an endorsement to triple nuclear energy by 2050 was signed. The expansion of the alliance of countries committed to a deadline to phase-out unabated coal use, including the US, supports our view that unlike nuclear energy coal can have no place in the energy system of the future.

We also hold the view that carbon capture and storage (CCS) technology should not be used as a solution for countries to continue unabated fossil fuel production and usage. Instead, we view

[14] IPCC, AR6 Synthesis Report, 2023

CCS as part of the climate solution for niche applications that don't have clean energy alternatives, such as heavy industries like cement production. We were pleased to see this view endorsed at COP28.

Although there were mixed reviews in the media, COP28 was rich in new global initiatives. These commitments need to now translate into actionable pathways for both private and public sectors. However, a tripling in renewable capacity alone will not limit global warming to 1.5C and needs to be combined with a rapid phase out of fossil fuels. Until this happens, the world will remain on course for a 2.5-2.9C warming – making 2023's record heat the new normal.

Q4 2023 engagement highlight[15]

Demonstration and meeting with CFO Jason Winkler, London sategy

Motorola Solutions delivers devices, networks and video technology to help maintain community safety and emergency responder connectivity, such as the police force. By introducing software and services to enhance its Land Mobile Radio (LMR) communication solutions, Motorola Solutions has expanded into markets including video security systems powered by AI analytics, and command centre software to which they stream their voice, video, and data feeds.

Motorola showed us how it was able to deliver more effective user and community protection by combining its handsets with video and command centre software. For example, it showed that by using its AI-integrated video solutions a command centre operator was better guided to what users should be viewing rather than trying to choose what to view themselves. This means operators can make faster, more focused and accurate decisions. Unlike human operators, AI software does not get bored or tired.

It also showcased the cameras worn by first responders. These are linked to a Motorola Bluetooth connected handset which streams the video back to 911 command centres across the US. This keeps the wearer connected and safe during emergencies while gathering vital evidence through video streams.

The team also showed how all three of its technologies – LMR, video, and command centre solutions – are helping protect schools in the US, which are increasingly under threat from shootings. It supplies voice communications to schools and officers that support the schools, as well as the video hardware and analytics used in preventative and reactive scenarios.

Through investment in research and development and acquisitions, Motorola is shifting its business towards video security and command centre software and services. It believes these technologies will help drive strong, defensive company sales growth. It says Motorola has at least one software module in around 3,500 of the circa 6,000 911 call centres in the US, but with only around 600 having multiple solutions there is still a large market opportunity.

[15] Mention of specific companies is not a recommendation

The firm showcased its next generation of LMR devices – the APX Next Smart Radio – and dismissed concerns that rival video devices would replace its core LMR solutions. The company believes that by developing innovative products it can maintain its market leadership.

Overall, it was clear from the demonstration that through innovation, Motorola is better able to protect the users of its technology, as well as the broader community in which it serves.

Q4 2023 CTSOGE strategy new company purchases[16]

Company	Sustainable category	Investment case
INTUITIVE SURGICAL **Mission:** "Through ingenuity and intelligent technology, we expand the potential of physicians to heal without constraints"	**Leader** **MSCI A-rated** Health, Wellbeing & Food Security 3 GOOD HEALTH AND WELL-BEING	Intuitive Surgical is the global leader in robotic surgical systems used to automate surgical procedures. It has a dominant market share (80%) in what is a relatively immature industry. Its systems are part of a strong ecosystem including software and services which underpins strong recurring sales. Its products mean shorter in-patient stays and lower re-admissions with at least equal patient outcomes to traditional surgery, helping to reduce the healthcare cost burden for hospitals. This positively aligns the company with our "Health, Wellbeing and Food Security" sustainable theme. Intuitive is a highly innovative company with growth supported by the launches of new robotic platforms. Impact stats: More than 2,200,000 procedures performed on Da Vinci robotic systems in 2023 (and more than 14,200,000 to-date) with more than 9,100 systems in hospitals globally.[17]
APTIV **Mission:** "Promote people (health and safety and diversity), product and planet (minimising environmental footprint)	**Leader** **MSCI AA-rated** Energy & Climate Transition 7 AFFORDABLE AND CLEAN ENERGY 3 GOOD HEALTH AND WELL-BEING	Aptiv is a leading auto supplier 100% focused on the electric architecture, including electric vehicle (EV) power management and advanced vehicle safety solutions. The company has proactively divested its legacy combustion engine units to focus on growing EV and vehicle safety solutions. This aligns it with the "Energy & Climate Transition" and "Health, Wellbeing and Food Security" sustainable themes. Impact stats: 40 million vehicles equipped with Aptiv active safety solutions, 100 million tonnes of CO2 emissions eliminated, including 40% weight reduction in vehicle architecture from Aptiv's high voltage electrification solutions.[18]

[16] Mention of specific companies is not a recommendation

[17] Company reports, 2024

[18] Company reports, 2024

Threadneedle Global Equity Sustainable Outcomes Composite

GIPS Report Columbia Threadneedle Investments EMEA APAC

Reporting Currency: USD

Statement of Performance Results

Calendar Year	Gross-of-fees Return (%)	Net-of-fees Return (%)	Index Return (%)	Composite 3-Yr St Dev (%)	Index 3-Yr St Dev (%)	Internal Dispersion (%)	Number of Portfolios	Total Composite Assets (mil.)	Total Firm Assets (bil.)
2023	26.52	25.71	22.81	19.05	16.27	N.A.	≤ 5	145.2	122.45
2022	-22.56	-23.07	-17.96	20.18	19.86	N.A.	≤ 5	139.1	114.86
2021	19.21	18.45	19.04	14.52	16.83	N.A.	≤ 5	177.7	161.32
2020	28.12	27.30	16.82	N.A.	N.A.	N.A.	≤ 5	1.5	149.82
2019	33.17	32.32	27.30	N.A.	N.A.	N.A.	≤ 5	1.2	140.52

Annualized Trailing Performance as of December 31, 2023

Period	Gross-of-fees Return (%)	Net-of-fees Return (%)	Index Return (%)
1 Year	26.52	25.71	22.81
Inception	14.79	14.05	12.27

Inception Date: December 31, 2018

1. Columbia Threadneedle Investments EMEA APAC 'the Firm' claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS Standards. Columbia Threadneedle Investments EMEA APAC has been independently verified by Ernst & Young LLP for the periods 1st January 2000 to 31st December 2022. The verification reports are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

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3. A concentrated global equity strategy with a focus on high quality companies that seeks to deliver both positive sustainable outcomes, in accordance with the UN Sustainable Development Goals (SDGs), and superior financial returns. Derivatives are not allowed. The composite was created November 30, 2018.

4. The gross-of-fees returns are time-weighted rates of return with cash flows at the end of the day. Returns reflect the reinvestment of dividends and other earnings and are net of commissions and other transaction costs. Returns are calculated net of non-reclaimable withholding taxes on dividends, interest, and capital gains and are shown before management and custodian fees but after the deduction of trading expenses. Composite returns are calculated by using underlying portfolio beginning of period weights and monthly returns. Periodic returns are geometrically linked to produce longer period returns. Net of fee returns are calculated by deducting the representative fee from the monthly gross return. Prior to 30th Sept 2022 the gross returns were calculated using daily authorised global close valuations with cash flows at start of the day, and were shown before management and custodian fees but after the deduction of trading expenses. Returns were gross of withholding tax. Policies for valuing investments, calculating performance, and preparing GIPS Reports, as well as the list of composite descriptions, list of pooled fund descriptions for limited distribution pooled funds, and the list of broad distribution pooled funds are available upon request.

5. The dispersion of annual returns is measured by the equal weighted standard deviation of portfolio returns represented within the composite for the full year. Dispersion is only shown in instances where there are six or more portfolios throughout the entire reporting period. The Standard Deviation will not be presented unless there is 36 months of monthly return data available.

6. The three year annualised ex-post standard deviation measures the variability of the gross-of-fees composite and benchmark returns over the preceding 36 month period.

7. The following fee schedule represents the current representative fee schedule for institutional clients seeking investment management services in the designated strategy: 0.65% on the first £50m; 0.6% on the next £100m; 0.55% on the next £350m; 0.5% thereafter. Gross of fee performance information does not reflect the deduction of management fees. The following statement demonstrates, with a hypothetical example, the compound effect fees have on investment return: If a portfolio's annual rate of return is 10% for 5 years and the annual management fee is 65 basis points, the gross total 5-year return would be 61.1% and the 5-year return net of fees would be 55.9%.

8. The benchmark for this strategy is the MSCI AC World Index. The MSCI AC World Index is designed to provide a broad measure of equity-market performance throughout the world and is comprised of stocks from 23 developed countries and 24 emerging markets Index returns reflect the reinvestment of dividends and other earnings and are not covered by the report of the independent verifiers.

9. Past performance is no guarantee of future results and there is the possibility of loss of value. There can be no assurance that an investment objective will be met or that return expectations will be achieved. Care should be used when comparing these results to those published by other investment advisers, other investment vehicles and unmanaged indices due to possible differences in calculation methods.

10. The percentage of non-fee-paying assets in the composite as of the end of 2020 and 2019 were 100% and 100% respectively. By the end of 2021 it was 0%.

11. Prior to 31st March 2022 the composite was known as Threadneedle Global Sustainable Equity Composite. This was a name change only.

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