News & Views Q2 2024

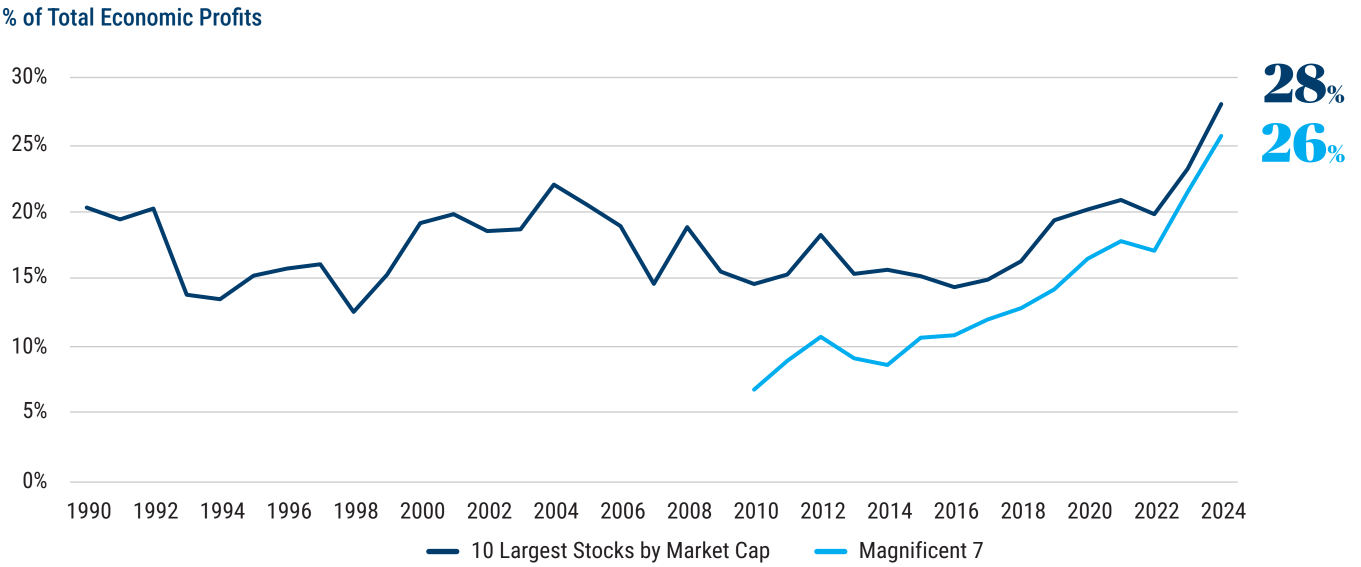
Columbia Threadneedle Sustainable Outcomes Global Equity Strategy

"The Magnificent 7" refers to the seven biggest US technology related stocks[1] which, except for Tesla, helped to drive markets to record highs at the end of the 2Q.

Pauline Grange
Portfolio Manager,
Global Equities

This rally was fuelled by excitement around the Artificial Intelligence (AI) secular theme, which in turn drove US market concentration to unprecedented levels with the top 10% largest US stocks accounting for around 75% of the US stock market. But the valuation moves in the Magnificent 7 has not just been about re-rating – their economic profit has grown strongly from $40 billion in 2010 to a forecasted $460 billion in 2024, generating 26% of the total US market economic profit, roughly equivalent to their valuation in the market.

[1] Magnificent 7 include Apple, Microsoft, Nvidia, Alphabet (Google), Amazon, Meta (Facebook), and Tesla (as of July 2024)



Source: Credit Suisse Holt TMT insights report, 5th August 2024, Universe Largest 1000 US Companies by TTM market cap.

But with momentum and positioning in technology overextended, it didn't take much for cracks to start to emerge by quarter end. We took advantage of the strong momentum in technology stocks over the quarter by taking some profit across several of our technology holdings including two of the Mag 7, Nvidia and Microsoft, as well as global leading semiconductor foundry, TSMC.

Overall, the Columbia Threadneedle Sustainable Outcomes Global Equity Strategy rose 3% over the quarter, in line with the MSCI ACWI, with Nvidia and TSMC, Eli Lilly (showing stronger than expected demand for their obesity treatments) and NextEra (strength in US renewable development) key contributors to strategy performance.

Trump's surge in US voting polls, after Biden's dismal performance at the presidential debate, triggered some rotation in the market at the end of June. His comment that "Taiwan should pay the US for its defence" contributed to a tech sell off at the end of June. A Chinese invasion of Taiwan would be devastating for global technology companies given 68% of the world's chips, and more than 90% of its advanced chips, are currently produced in the country[2]. It's no surprise that rising tension in the Middle East combined with increased prospects of "Trump 2.0" led to "Geopolitical conflict" overtaking "Higher Inflation" as the number one market concern by quarter end[3].

Any repeal of the Inflation Reduction Act to be limited

Trump's rise in the polls also weighed on clean technology stocks as a Republican win likely means a reversal of Biden's climate change agenda and in particular, clean technology incentives under his Inflation Reduction Act (IRA).

However, we retain our base case that although Trump may roll back some of the IRA incentives, such as electric vehicle tax credits, he is unlikely to undertake a full-scale IRA repeal. IRA tax incentives for nuclear power, wind and solar, and domestic manufacturing appear safe with bipartisan support given the benefits of renewable investments are predominantly flowing to Republican-controlled states, driving local job creation, and raising tax revenues.

Record global temperatures reinforce importance of energy transition

The world also hit a new climate milestone at the end of June – the first 12-month streak with global average temperatures consistently >1.5C above pre-industrial levels. The current temperature spike comes above the last record-breaking El Nino temperature streak of 2015/2016. And although global average temperatures are set to moderate as the current El Nino conditions peak, temperatures are likely to stay well above long-term historical averages due to excess greenhouse gas emissions in the atmosphere. The world is now on course for 2.5-2.9C warming, which will necessitate greater investment into climate adaptation infrastructure as extreme weather events become more severe and frequent. This, combined with broader electrification trends and a multi-decade transition in our energy systems, supports our positive outlook for our environmental holdings, regardless of near-term weakness related to political rhetoric.

[1] https://www.economist.com/special-report/2023/03/06/taiwans-dominance-of-the-chip-industry-makes-it-more-important
[2] BofA Global Fund manager survey, July 2024
[3] BofA Global Fund manager survey, July 2024

Sustainability theme focus: 'Our ageing world'

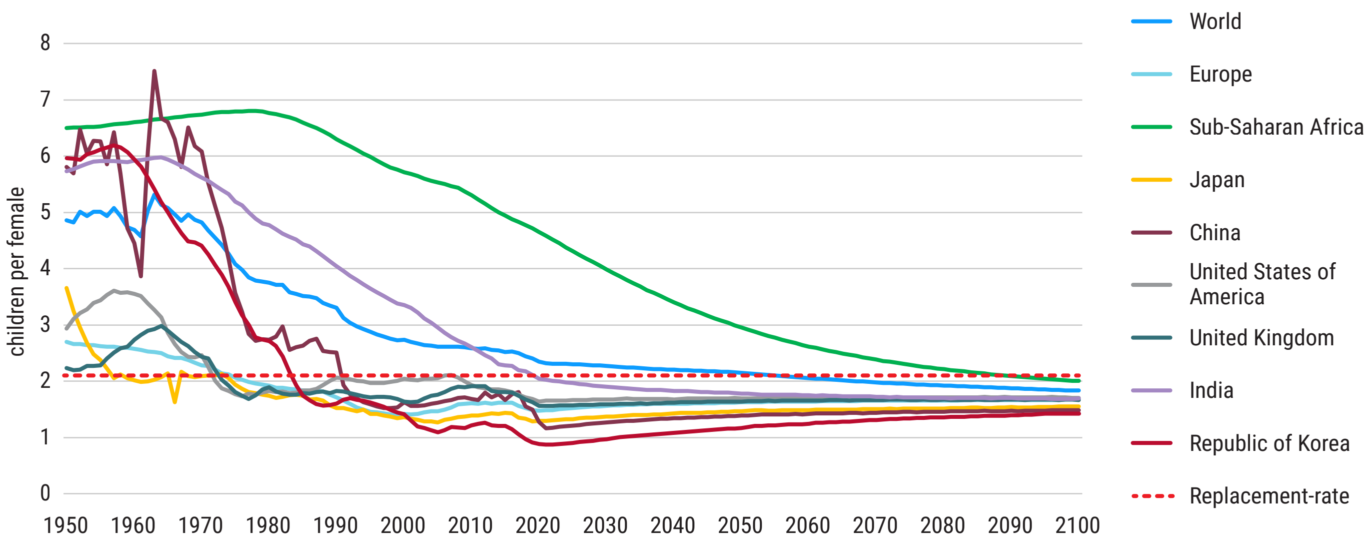
The world's growing population, which reached 8 billion in 2022, and the strains it places on our finite natural resources is widely covered. But what is less reported is how most of the world's major economies are currently undergoing the most rapid demographic change since the second world war. Our population is rapidly ageing due to a combination of longer life expectancy, declining childhood mortality and falling fertility rates. And although a peaking global population can be celebrated from an environmental perspective, it raises new social challenges.

Globally, the fertility rate is now 2.3 births per woman compared to 3.3 births in 1990. This is getting close to the 2.1 births per woman needed to maintain a population size.

More than 50% of countries, housing 60% of the world's population and producing 90% of global GDP, have a replacement rate below 2.1[4]. Even India, which has seen rapid population growth in recent years, is now below replacement rate.

> The biggest problem the world will face in 20 years is population collapse
>
> Jeff Bezos, Amazon Chairman/co-founder

Rate of births per female vs the replacement rate for populations



Source: UN WPP 2023

Falling fertility rates are largely the outcome of positive global developments. As countries get richer, women get greater rights, access to education and access to contraception. They also enjoy more choices outside of childbirth and increasingly participate in the workforce. This is why government policy interventions to directly boost fertility have been largely unsuccessful to date. However, in many developed economies the rising costs of raising a child, including the exorbitant cost of childcare, are also contributing to falling births per family. Here policy support, especially around access to more affordable childcare, is more welcome.

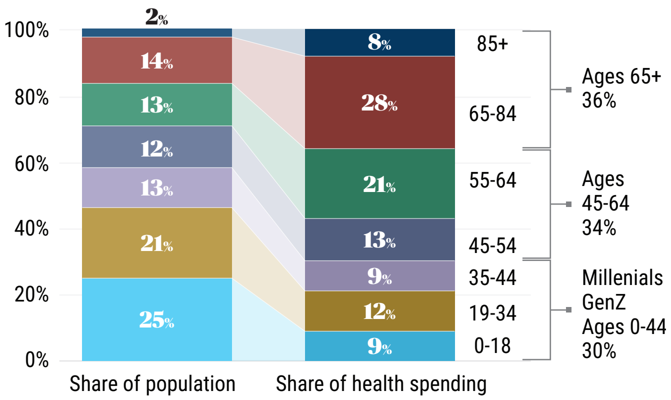
Coupled with falling birth rates, people are living longer. In 1900 the average life expectancy of a newborn was 32 years old, but this doubled to 71 by 2021 and continues to rise[5]. By 2040 it is forecast that there will be as many over 65s as under 25s in Europe and North America[6]. Vastly improved life expectancy is one of the greatest achievements of modern science. Advances in healthcare innovation have supported declining childhood mortality (in the 19th Century, 50% of children could expect to die before their fifth birthday vs 4% today[7]) and increased life expectancy (for example, the number of deaths caused by cardiovascular disease in the US has fallen by 70% since 1970[8]).

But these shifts drive large social challenges. A key concern is that a ballooning older population reliant on a shrinking working population leads to a rise in dependency ratios. A smaller workforce means lower tax revenue, whilst more retirees increase pressure on government budgets to spend on pensions and healthcare – all at a time when governments globally are already tackling record levels of debt.

[4] In descending order of contribution: India, Nigeria, Pakistan, Democratic Republic of the Congo, Ethiopia, Tanzania, Indonesia, Egypt and USA. Source: United Nations, Shifting Demographics, 24 October 2019
[5] Our World in Data: Life Expectancy, 2023
[6] UN Population Prospects
[7] Our World in Data: Life Expectancy, 2023
[8] WHO Health report

Ageing population risks driving up healthcare-related spend

Over 65s account for a higher share of healthcare spending, US only



Source: KFF analysis of 2021 Medical Expenditure Panel Survey data

Ageing populations can also have a detrimental impact on productivity due to growing labour shortages and skills gaps as workers retire.

Japan is viewed as a case study on how shifts in a country's demographic profile can have profound and far-reaching economic effects. Japan's working population has been in decline since the 1990s, with the latest data suggesting that the number of Japanese nationals is falling by almost 100 per hour[9] and over 65s now accounting for 30% of the population[10]. For Japan, a declining working population has meant three decades of falling labour productivity, which is now the lowest amongst G7 nations[11], economic stagnation[12] and lower inflation due to softening of aggregate demand. Ultimately, a shrinking labour force means firms can't find the workers necessary to expand production or economic output.

But whilst attempts to reverse the course of ageing populations have largely proven futile, there are solutions to help make this older population less dependent.

Healthy ageing is a key component of minimising the burden on healthcare systems and enabling people to remain in the workforce for longer if they so choose, minimising their reliance on younger workers. This means maximising the economic contribution of older groups whilst preventing the dependence on social and healthcare systems. In Japan, older workers are now making a key economic contribution with one in seven workers aged over 65[13].

Companies offering solutions to support the health and wealth of an ageing population should experience structural demand growth from these demographic changes. In BMI's Megatrend Survey, 30% of pharmaceutical companies are increasingly looking to develop drugs tailored to supporting ageing populations, for example treatments for age-related conditions such as cardiovascular diseases, neurodegenerative conditions, cancer, respiratory diseases, and vision and hearing loss[14].

Our 'Health and Wellness' theme supports investment in several companies offering solutions that support the health of an ageing population. These include our holdings tackling vision care (EssilorLuxottica, Cooper Companies) to the life science companies supporting innovative new drug discoveries (Thermo Fisher, Biotechne), and pharmaceutical companies offering drugs helping to prevent chronic diseases (Eli Lilly with both their Alzheimer's drug pipeline and obesity treatments helping to reduce chronic illnesses).

In an ageing population, companies also need to leverage technology and automation to help improve the productivity of shrinking labour pools. In this sense, the arrival of Generative AI may be perfectly timed given its potential for transformative productivity improvements. Again, Japan is a case study in how countries with an ageing population are more likely to adopt robots and other forms of technological automation tools to enhance productivity. Japan is now the world's largest industrial robot manufacturer, delivering 45% of global supply[15].

Attitudes to ageing also need to change. Companies must adapt their hiring and work policies, tackling ageism in sourcing workers and offering greater flexibility, such as part-time or remote working, to accommodate older employees. A culture of lifelong learning is also needed as people work for longer. This will benefit education companies such as our holding in RELX which provides information and analytical tools for professionals. More inclusive employment policies can also improve company access to, and retention of, talent. Bright Horizons (a holding in the strategy) is benefitting from more companies offering childcare and eldercare support benefits for their employees to promote greater staff retention.

Ultimately the world needs to adapt to a multi-generational workforce. This includes investing in healthcare to support healthy ageing and technology innovation to maximise labour productivity, supporting demand for many of the solutions offered by companies held across our strategy.

[9] FT.com, Japan's native population declines at a record rate as births plunge, 12 April 2024
[10] BBC News: Japan population: One in 10 people now aged 80 or older, 19 September 2023
[11] Nippon.com: Japan's productivity ranks lowest among G7 nations for 50 straight years, 6 January 2022
[12] NHK World – Japan, Reviving Japan's Economy: Breaking Free of 3 Decades of Stagnation, 12 August 2023
[13] Nippon.com: A Third of Japanese People Aged 70 to 74 Still in the Workforce, 10 October 2023
[14] Fitch solutions: Megatrends to 2052: Ageing Populations to Influence Drug Development and workforces
[15] International Federation of Robotics: Japan is World´s number one Robot Maker, 10 March 2022

Q2 2024 Strategy new company purchases

Company	Sustainability in practice
Bio-Techne **Sustainable Category**	**Bio-Techne** supplies the chemical compounds that enable their customers to discover and develop next-generation therapeutics, vaccines and diagnostics. They are the leader in this field with a vast catalogue of purified proteins and reagents to support the research and development of new therapies, as well as the diagnostics and analytical tools to support testing in labs. In essence, Bio-Techne help their customers scale from drug discovery to production. They demonstrate clear intentionality supported by strong product innovation with an extensive catalogue of over 500,000 unique products, which in turn has supported industry leading growth rates and growth into new verticals. This vast portfolio also positions them well for global health megatrends such as gene therapy. We view the correction in earnings and share price from COVID related highs as offering an attractive entry point into this sustainable leader in healthcare innovation and discovery. **Aligned corporate metrics and targets to SDG 3** - commercialised >1,600 new products to support biopharma, academic and diagnostics customers in 2023.

Company	Sustainability in practice
Roper Technologies **Sustainable Category**	**Roper Technologies** owns a diverse portfolio of 28 businesses with a focus on software companies selling market leading, mission critical solutions in non-cyclical end markets. Their diverse set of software companies support stable sales growth for the group, independent of macro trends. Over 75% of group sales are from software solutions that are mission critical to their end user, with the belief that many of their products will be the last to be turned off. These companies are predominantly in sustainable aligned verticals including healthcare, education, government, and insurance. The biggest companies in their portfolio, with annual sales of more $500 million and comprising roughly 40% of group sales, are Deltek (enterprise software for project-based management), Neptune (smart water meter solutions) and Vertafore (software for the insurance industry). The focus of their acquisitions is to acquire high quality leaders in critical and niche areas with the potential for high cash return on investment (rather than just growth) which can then be deployed to acquire more businesses. Although sustainability is not the focus of M&A, their purchases have tended to be in sustainable aligned niche verticals. **Aligned corporate metrics and targets to SDG 8** - In 2023 deployed ~$2.1 billion of capital toward software acquisitions, the biggest being Syntellis Performance Solutions ($1.25 billion), a leading provider of cloud-based software solutions for healthcare, financial institutions, and higher education markets.

Company	Sustainability in practice
Shopify **Sustainable Category**	**Shopify** provides simple, low-cost software which enables small businesses to set up and sell products online efficiently and quickly, supporting their growth and fostering job creation (SMEs account for 70% of jobs in the OECD area). Its innovative cloud-based model is the most flexible and lowest friction model available in the marketplace, well ahead of the competition. Shopify is the only one of its competitors that charges on a commission basis as opposed to a licensing fee. This means it can add products and services for free, such as search engine optimisation, whereas other providers charge for these services, promoting greater economic inclusion for smaller companies. It also positions itself as offering an alternative e-commerce experience, outside of Amazon, where smaller businesses can have greater brand control. This combined with a rich and growing ecosystem of 13,000+ applications built by developer partners supports a strong and widening competitive moat and consistent share gains in eCommerce. Despite strong growth, its solutions have only penetrated 2% of what they view as a large global eCommerce market, supporting a long runway of future growth for the company. **Aligned corporate metrics and targets to SDG 8** - In 2023 facilitated $235.9 billion in GMV (gross merchandise value)

The mention of specific stocks is not a recommendation to deal.

Columbia Threadneedle Sustainable Outcomes Global Equity Strategy

GIPS Report Columbia Threadneedle Investments EMEA APAC

Statement of Performance Results

Reporting Currency: USD

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, 31 December 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: 31 December 2018

1. Columbia Threadneedle Investments Global Asset Management 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 Global Asset Management has been independently verified for the periods of January 1, 1993 to December 31, 2022. The verification report is 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.
2. The Firm is defined as Columbia Threadneedle Investments Global Asset Management (formerly known as Columbia Threadneedle Investments North America prior to June 30, 2024). The Firm provides a broad range of investment management and related services to individual, institutional, and corporate clients around the world. Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies. The Firm was redefined on June 30, 2024, to include the GIPS firms of Columbia Management Capital Advisers, Columbia Threadneedle Investments EMEA APAC, and Columbia Threadneedle (EM) Investments Limited. The Columbia Management Capital Advisers firm offered investment management and related services to clients participating in various types of wrap programs. The Columbia Threadneedle Investments EMEA APAC firm consisted of all portfolios managed by various Threadneedle group companies. The Columbia Threadneedle (EM) Investments Limited firm was a subsidiary of Columbia Threadneedle Investments International Limited, which defined a portion of its business specializing in Global Emerging Markets equities. As of November 1, 2020, the Firm was redefined to include Columbia Cent CLO Advisers, LLC. As of January 1, 2017, the Firm was redefined to include Columbia Wanger Asset Management, LLC, a wholly-owned subsidiary of Columbia Management Investment Advisers, LLC. Beginning March 30, 2015, the Columbia and Threadneedle group of companies, which includes multiple separate and distinct GIPS-compliant firms, began using the global offering brand Columbia Threadneedle Investments. The Firm includes accounts managed by various Columbia Threadneedle Investments entities, including Columbia Management Investment Advisers, LLC, Threadneedle Asset Management Limited, Threadneedle Investments Singapore (Pte.) Limited, Threadneedle Management Luxembourg S.A., and other affiliated entities.
3. The strategy invests at least two-thirds of its assets in shares of high dividend yield companies worldwide. Derivative instruments may be used for efficient portfolio management and currency management. The primary use of derivatives is not designed to create a highly leveraged investment position. The composite was created June 30, 2007.
4. The gross-of-fees returns are time-weighted rates of return net of commissions and other transaction costs. Net-of-fees returns are calculated by deducting from the monthly gross-of-fees composite return one-twelfth of the highest client fee (model fee) in effect for the respective period. Composite returns reflect the reinvestment of dividends and other earnings.
5. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the Composite for the entire year. If the composite contains five or fewer accounts for the full year, a measure of dispersion is not statistically representative and is therefore not shown.
6. The three-year annualized standard deviation measures the variability of the gross-of-fees composite and benchmark returns over the preceding 36-month period. It is not required to be presented when a full three years of performance is not yet available.
7. Returns are calculated net of non-reclaimable withholding taxes on dividends, interest, and capital gains. 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.
8. The following fee schedule represents the current representative fee schedule used as the starting point for fee negotiations for institutional clients seeking investment management services in the designated strategy: 0.7% on the first £25m; 0.6% on the next £25m; 0.5% on the next £50m; negotiable 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 70 basis points, the gross total 5-year return would be 61.1% and the 5-year return net of fees would be 55.5%.
9. The benchmark for this composite 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.
10. 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.
11. Prior to 30/06/2024 the composite was known as Threadneedle Global Equity Income Composite.
12. This composite was included in the Columbia Threadneedle Investments EMEA APAC GIPS firm prior to joining the Columbia Threadneedle Investments Global Asset Management GIPS firm on 6/30/2024. As the composite was not part of Columbia Threadneedle Investments Global Asset Management prior to 6/30/2024, firm assets are shown as "N/A" in the performance table.

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