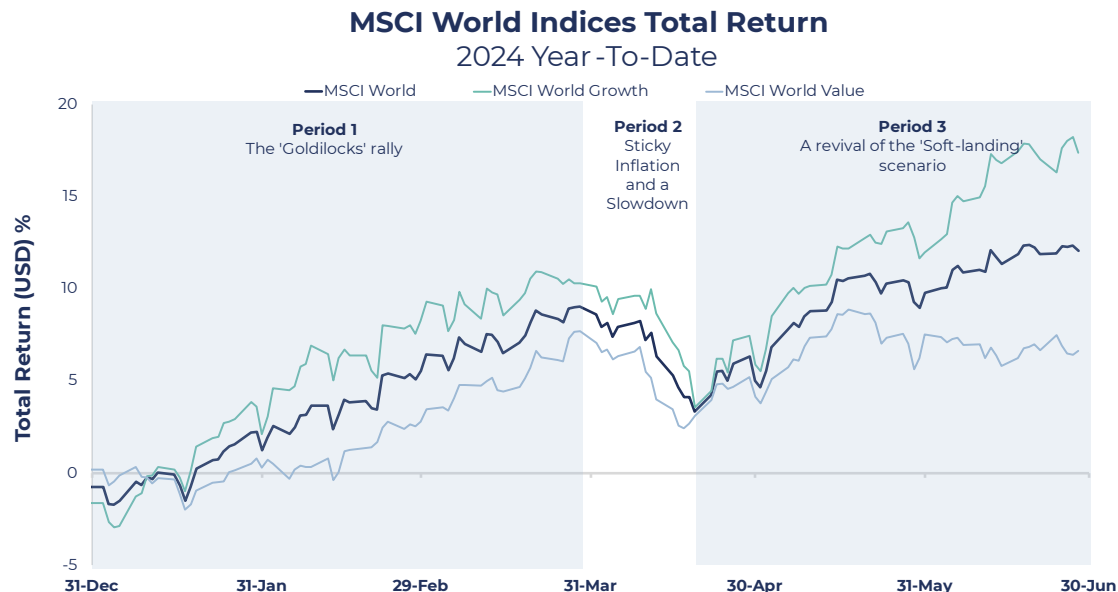


Market Commentary

What has happened so far over 2024?



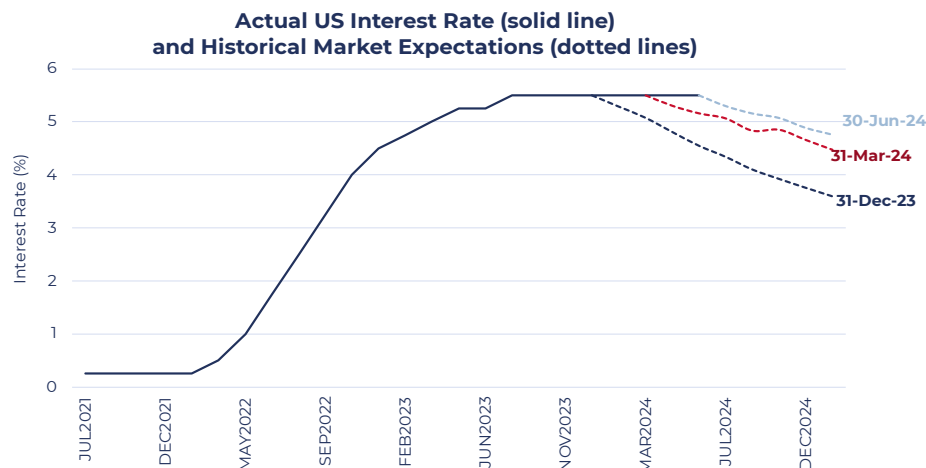
Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

Period 1 – The ‘Goldilocks’ rally: December 31st 2023 – March 29th 2024

The first quarter of the year saw a continuation of the broad equity rally that took hold in the final months of 2023. We entered the year with significant market expectations of a ‘Goldilocks scenario’: continued economic strength, inflation trending towards target levels and prospects of large scale interest rate cuts. However, over the quarter, strength in economic data was perceived to mean that the Federal Reserve may not need to cut rates any time soon - particularly as inflation failed to fall as quickly as expected. This resulted in a significant shift in expectations over the number and timing of expected interest rate cuts from central banks. At the end of 2023, market-implied expectations suggested a 16% chance that the Fed would cut interest rates in January, and an 84% chance of a cut in the March meeting. For 2024 as a whole, expectations suggested approximately six cuts over the year. No cuts in January or March came to pass, and by the end of the quarter, the market was pricing in just a 10% chance of a cut in May, and fewer than three cuts for the year. Unexpectedly, this significant shift in expectations coincided with continued positive equity performance and the outperformance of ‘growth’ stocks, as global equity markets reached all-time highs during March. We have often commented on how ‘good news’ for the economy has been ‘bad news’ for equities over the last couple of years, with signs of a strong economy potentially delaying a rate cutting cycle from central banks. This time, however, good news for the economy was good news for equities. The prospect of continued strength in the economy, the opportunity artificial intelligence presents, and a strong company earnings season that saw 74% of companies surprise to the upside on an earnings-per-share (EPS) basis all led to improved sentiment across sectors and factors.

During this period, the Fund benefited from both positive stock selection and asset allocation effects, driving outperformance relative to the benchmark. In particular, the Fund's largest overweight industry position was to the benchmark's best performing - Semiconductors and Semiconductor

Equipment Manufacturers. Strong stock selection amongst names such as Nvidia, Meta and Novo Nordisk was also a significant contributor, alongside the outperformance of 'growth' more generally.



Source: Guinness Atkinson Asset Management, Bloomberg, as of June 30th 2024

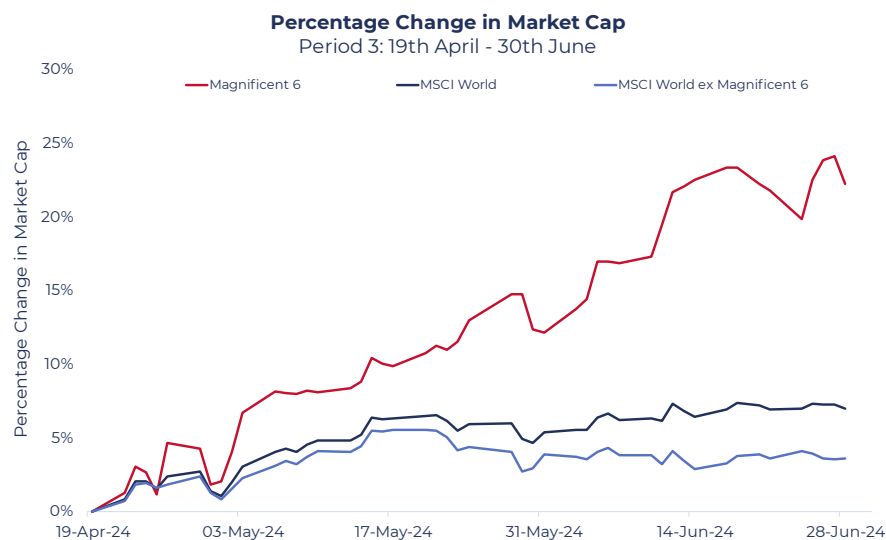
Period 2 – Sticky Inflation and a Slowdown: March 29th – April 19th 2024

Markets turned sharply downwards during the early weeks of April, as weaker economic data and limited progress in bringing inflation down placed a dampener on the 'Goldilocks' scenario. Over 2024 to date, equity markets were seemingly content to put up with higher rates for longer over the short term, provided these higher rates were in the context of a strong economy and corporate earnings remained robust. Previous economic data over 2024 had pointed almost universally to strength, however, small changes to the narrative emerged over April as Q1 GDP, the US manufacturing purchasing managers' index and consumer sentiment surveys all came in below consensus forecasts, causing markets to stumble. Suggestions emerged that the 'consumer-led' economy may be very gently running out of steam, and whispers of 'stagflation' emerged, alongside marginal concerns that the Federal Reserve Board's next move could in fact be a rate hike. In the context of these figures, commentary from Federal Reserve Chair Jay Powell became markedly more hawkish during the month of April, conceding that inflation was now taking longer than expected to fall to levels in which it would be acceptable to ease policy. He stated: "We've said ... that we'll need greater confidence that inflation is moving sustainably toward two percent before it would be appropriate to ease policy... The recent data have clearly not given us greater confidence, and instead indicate that it's likely to take longer than expected to achieve that confidence." With disinflationary trends that were faltering, the market's primary concern was a scenario of higher inflation, a weaker economy and delays to a rate-cutting cycle.

During the sell-off, the Fund performed in-line with the benchmark. The Fund's largest overweight sector position was to the MSCI's bottom performing sector, Information Technology. While this acted as a significant detractor to relative Fund performance, strong stock selection within Industrials, Communication Services and Information Technology offset the majority of this negative impact. ABB, Alphabet and Anta Sports were standout performers during this period.

Period 3 – A revival of the Soft-Landing: April 19th – June 30th 2024

A broad equity market reversal took hold in late April. Equities were initially injected with impetus following a strong corporate earnings season, and macro-economic developments over the month of May and June served to suggest that the ‘soft landing’ scenario was firmly back on the table. US stocks bounced after a jobs report significantly undershot expectations in May, bolstering hopes of an easing in inflationary pressures, given that a cooler jobs market indicates declining wage pressures – the core cost to the services economy (about 70% of the services industry cost base is wages), where inflation has been most pronounced. These hopes were reaffirmed by positive inflation data mid-month. The number of rate cuts expected in 2024 increased over the period, reversing a sharp downward trend in the preceding months of the year. This sentiment was echoed by the Federal Reserve, who stated there was only a “very small probability” that the Fed’s next move would be a rate hike. While the US jobs report was far hotter than expected in June, a cool inflation print served to reassure equity markets. A notable divergence in performance between factors emerged mid-May – notably around the time that Nvidia reported another blockbuster earnings. While ‘growth’ stocks continued to rally from mid-May onwards, ‘value’ stocks were flat/down. As was the case in 2023, the key driver of this divergence was a narrow selection of stocks – the Magnificent Six (Apple, Amazon, Alphabet, Nvidia, Meta, Microsoft) – which were once again driven higher by AI enthusiasm.



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

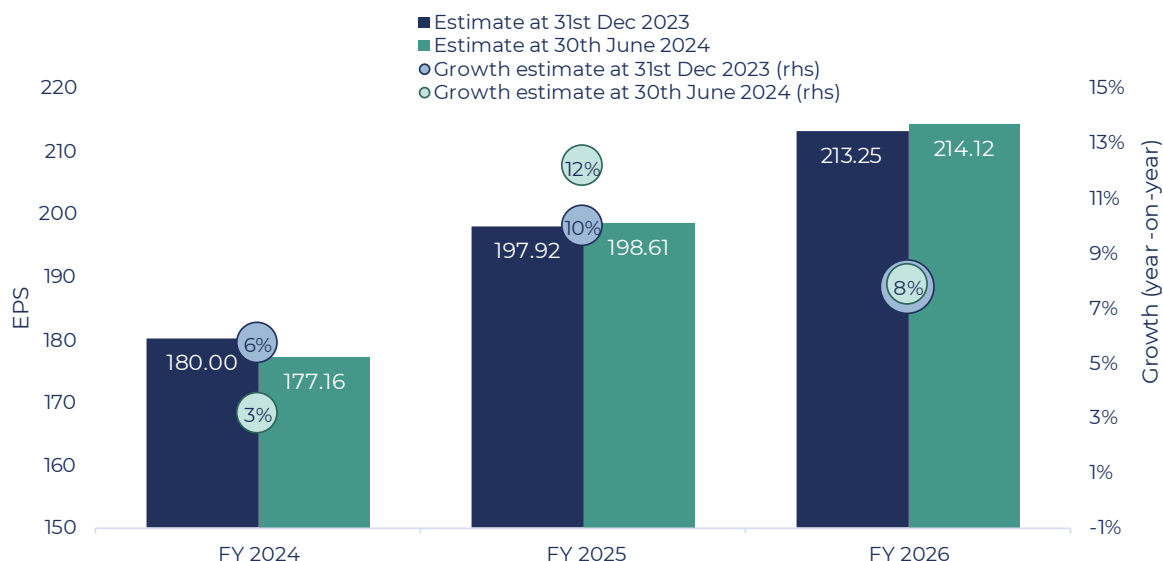
During the period, the Fund once again benefited from a significant overweight position to the Semiconductor industry, the benchmark’s best performing. The outperformance of ‘growth’ stocks was also beneficial to Fund performance, alongside the fact that the Fund holds six of the Magnificent Seven (Apple, Alphabet, Amazon, Meta, Microsoft and Nvidia, but not Tesla), which contributed the majority of benchmark returns in the second half of the period. Some stock specific weakness, with Nike and Anta Sports in particular, was not enough to offset strength elsewhere.

What has driven returns over the first half of 2024?

We have seen minimal change in expectations to benchmark earnings over the year. While there has been a small downgrade to 2024 earnings expectations, there has been a slight upgrade to 2025 and 2026. This has meant ‘growth’ estimates have slightly declined for Fiscal Year (FY) 2024, increased for FY

2025, and stayed flat for FY 2026. This suggests a slightly weaker short-term outlook, but the longer term outlook remains strong.

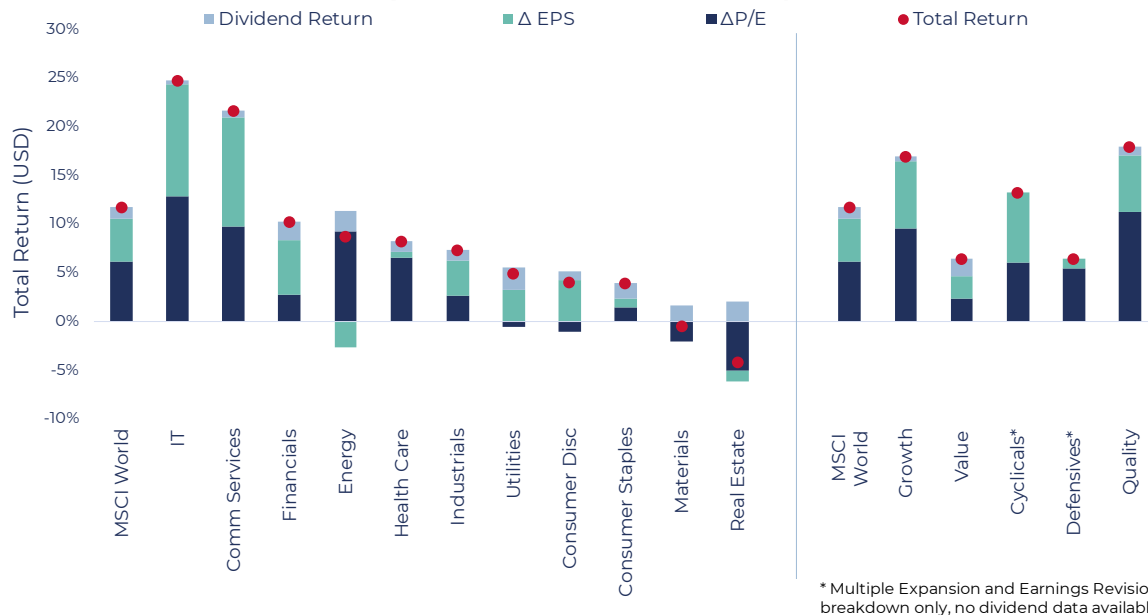
MSCI World EPS Expectations



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

The MSCI World has felt a significant contribution from both $\Delta P/E$ (change in P/E, or 'multiple expansion') and ΔEPS (change in earnings – a combination of both earnings *growth* and *analyst expectations*). These two calculations use 12-month forward estimates. Since there has been little change in earnings *expectations* for both 2024 and 2025, the change in earnings is therefore almost entirely driven by expected earnings *growth* over the year, as 2025 makes up a greater share of the calculation. Below, the MSCI World total return can be seen to be made up by relatively equal contributions from both ΔEPS and $\Delta P/E$ – as is also true for the MSCI World Growth and Value indices, but of significantly varying magnitude. The picture is far more varied when looking across sectors, however.

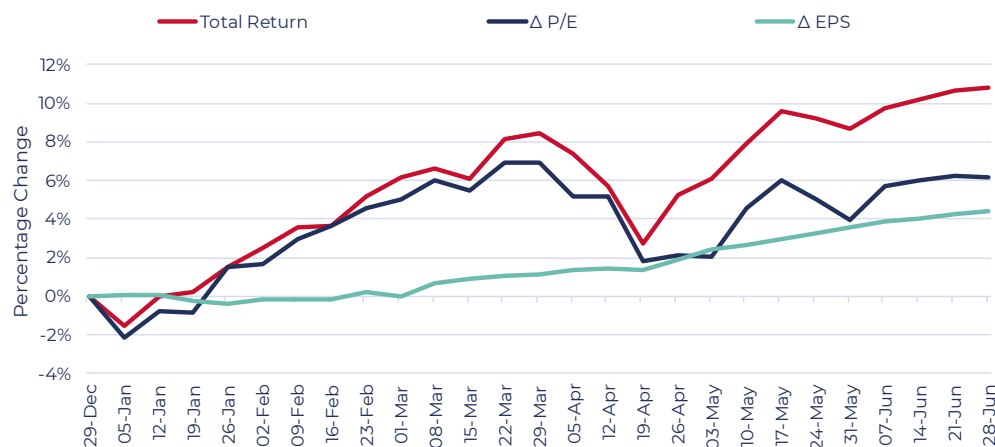
**Global Sector Total Return Breakdown
 (Dec 31, 2023 to Jun 30, 2024)**



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

Expected earnings growth has been almost as much of a contributor to total return as multiple expansion – but with lower volatility. As seen below, we can see how both multiple expansion and the change in EPS have contributed to total return for the index over the course of 2024. While at the end of Q1, returns were driven almost entirely by multiple expansion, earnings growth has been a strong and consistent driver of returns since the beginning of March, as 2025 makes up a bigger portion of the ΔEPS calculation. Valuation, while a larger positive contributor, has been far more volatile.

MSCI World: Drivers of Total Return - Year to Date

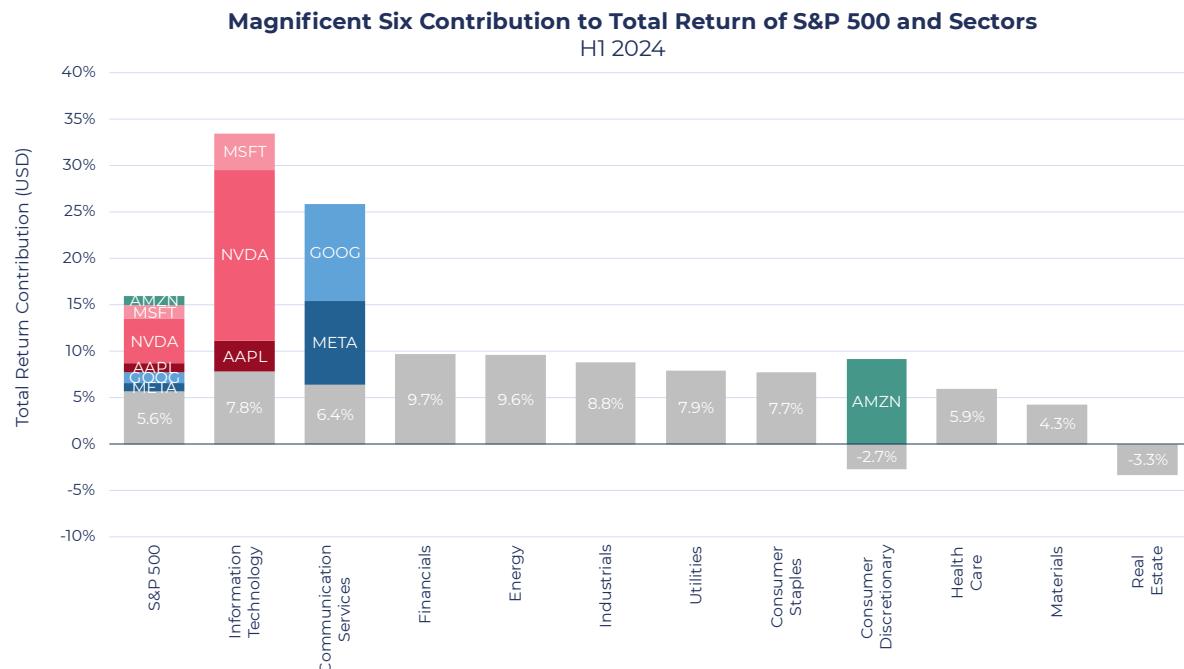


Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

This highlights the importance of choosing businesses with good, reliable, earnings growth potential – what we believe to be a far more consistent driver of long-term returns. While valuation is clearly important (and a key element of our investment process), changes are far less predictable and volatile in the short term, particularly during periods of high economic uncertainty.

Narrowness in the market

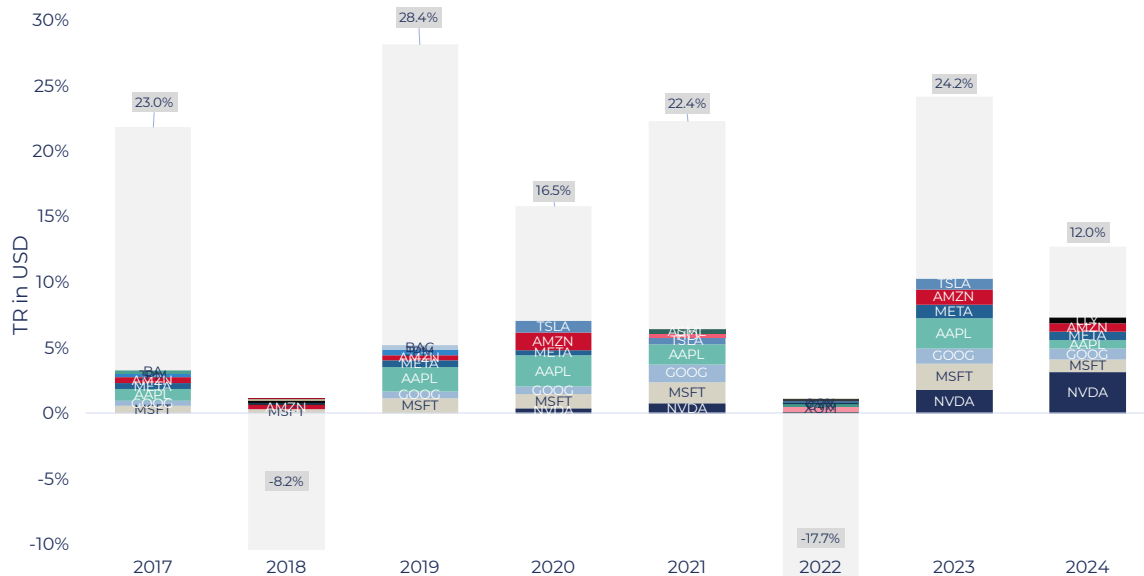
In the US, the majority of benchmark returns have been driven by the Magnificent Six (Microsoft, Nvidia, Apple, Google, Meta and Amazon) over the first half of 2024. Information Technology and Communication Services both outperformed the rest of the benchmark sectors by double-digits, but interestingly, had it not been for Microsoft, Nvidia, Apple, Google and Meta, these sectors would have only been the 5th and 7th best performing (out of 11). Without Amazon, Consumer Discretionary would have ended in negative territory.



Source: Guinness Atkinson Asset Management, Bloomberg, as of June 30th 2024

This is also true of returns on a global scale, albeit to a lesser extent. The below chart shows the total returns of the MSCI World over the past eight years, along with the contribution from the top seven stocks.

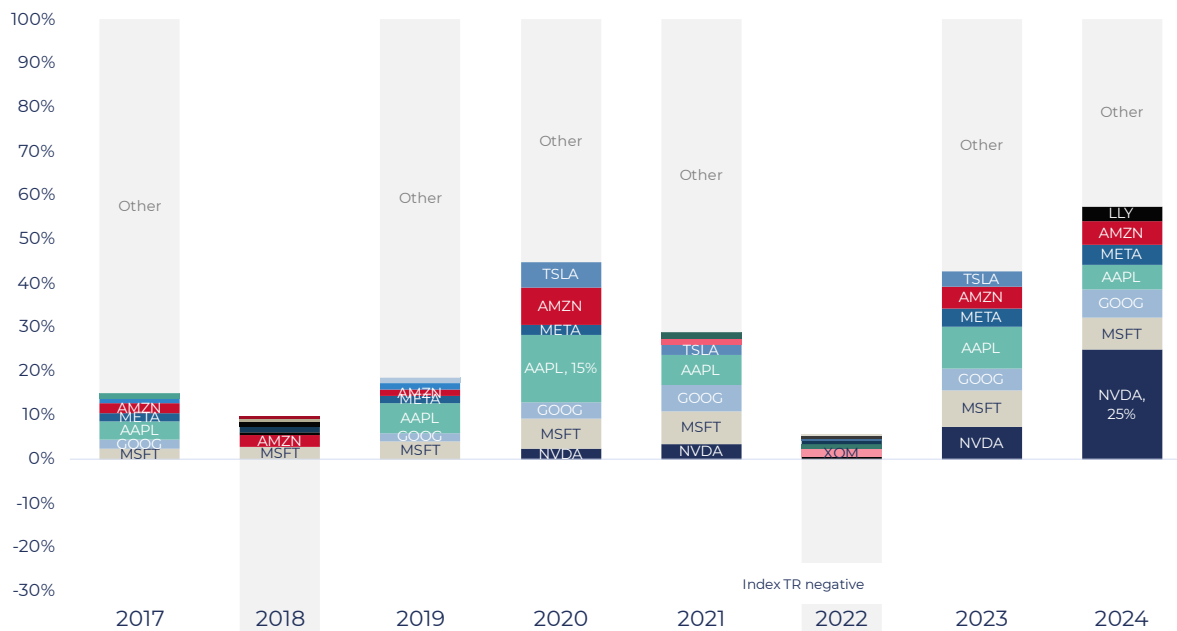
Top 7 contributions to MSCI World Total Returns



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

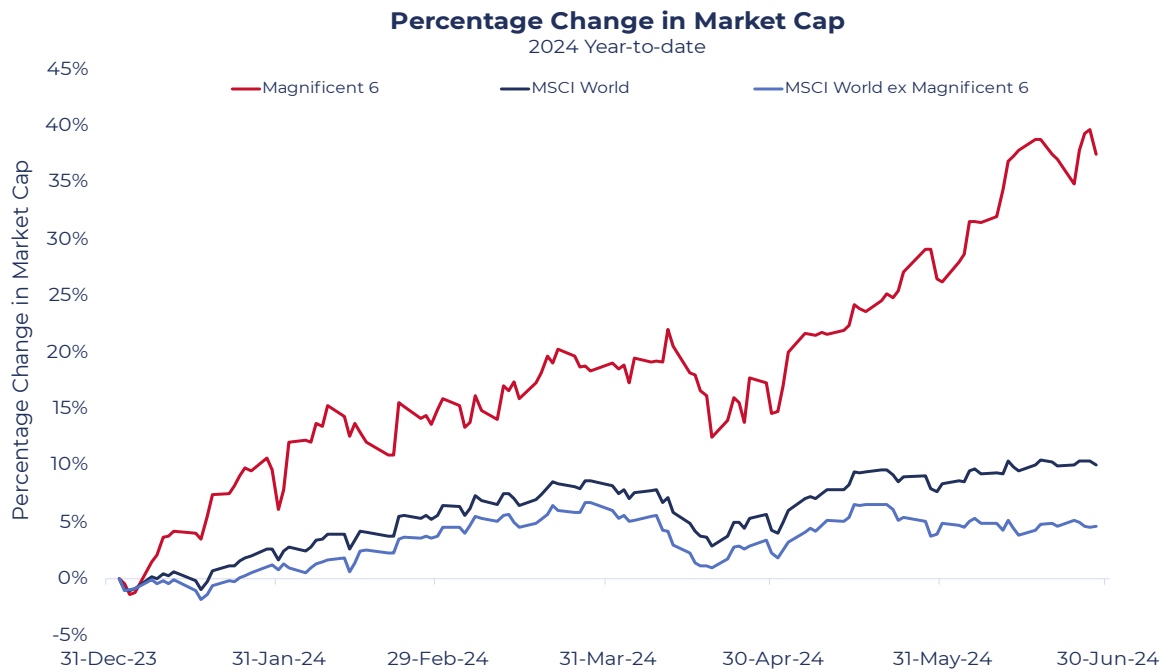
Concentration in returns is nothing new, but we can see a significant step up since 2019. Interestingly, the returns seen so far this year (a similar level to last year on an annualized basis) are even more concentrated than 2023 – with nearly 60% of returns a result of the top 7 performing stocks.

Contribution as a Proportion of Index Total Return



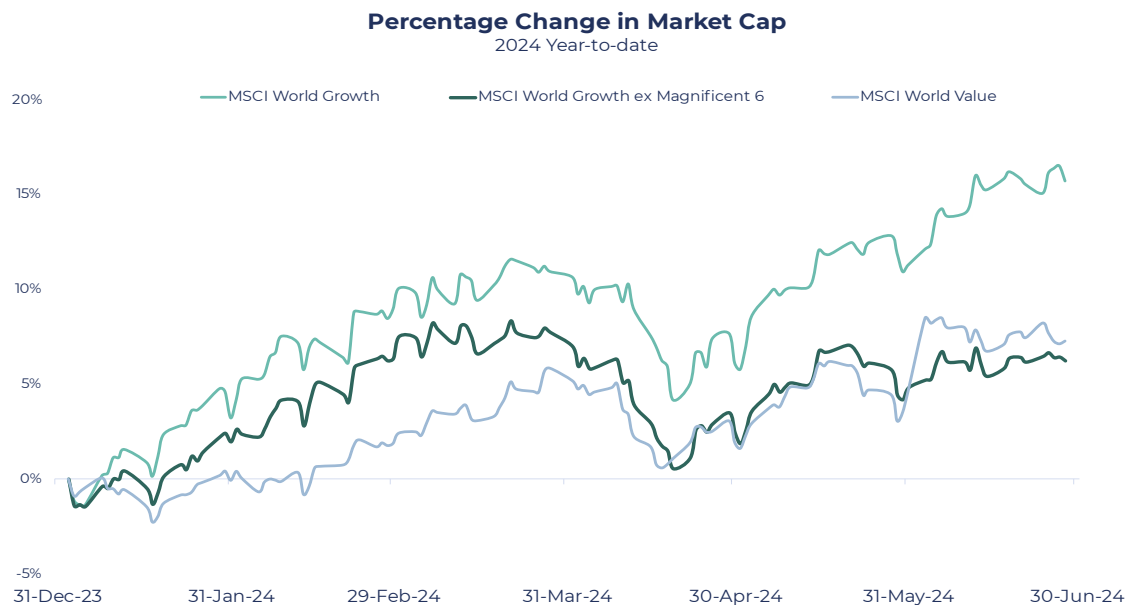
Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

Looking at the MSCI World, there are two clear periods of outperformance from the Magnificent 6 (i.e. narrowness) – the first six weeks of the year and in the final two months of the period. Without the Magnificent Six, benchmark returns would have been slightly down since mid-May.



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

On a factor basis, the impact of these stocks is even more striking. Above we discussed the significant outperformance of 'growth' over 'value' during 2024. However, by excluding the Magnificent Six from the 'growth' index, it actually appears that the two have performed in-line. This is particularly true from April 19th (period 3 in our first graph), where the entirety of 'growth' outperformance has stemmed from the Magnificent Six.

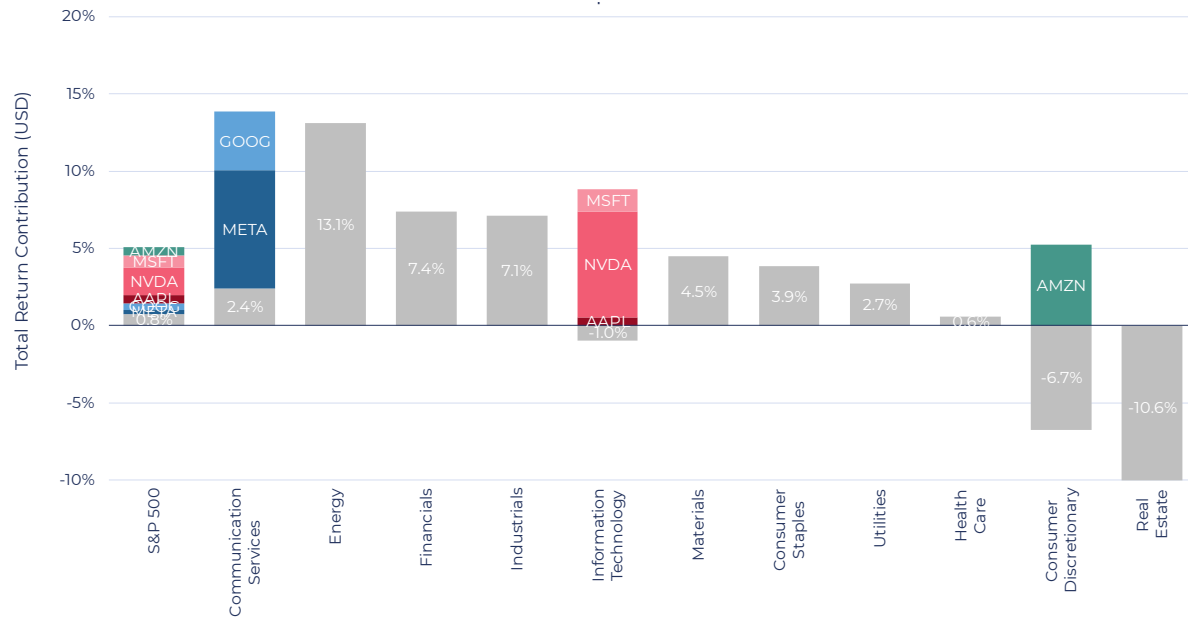


Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

Going back to our three periods, we can infer that while the rally in period one (the 'Goldilocks' rally) may have been driven by a positive view on 'growth' stocks over 'value' (given that growth outperformed even when excluding the Magnificent Six), the rally in period three ('A revival of the soft-landing') was not, with the Magnificent Six skewing the growth index upwards. Using similar analysis to before by excluding the Magnificent Six from returns, Consumer Discretionary, Information Technology and Communication Services all feature in the worst 5 performing sectors over period 3. This suggests that in recent months, there appears to be a preference for more defensively orientated sectors over more cyclically orientated ones.

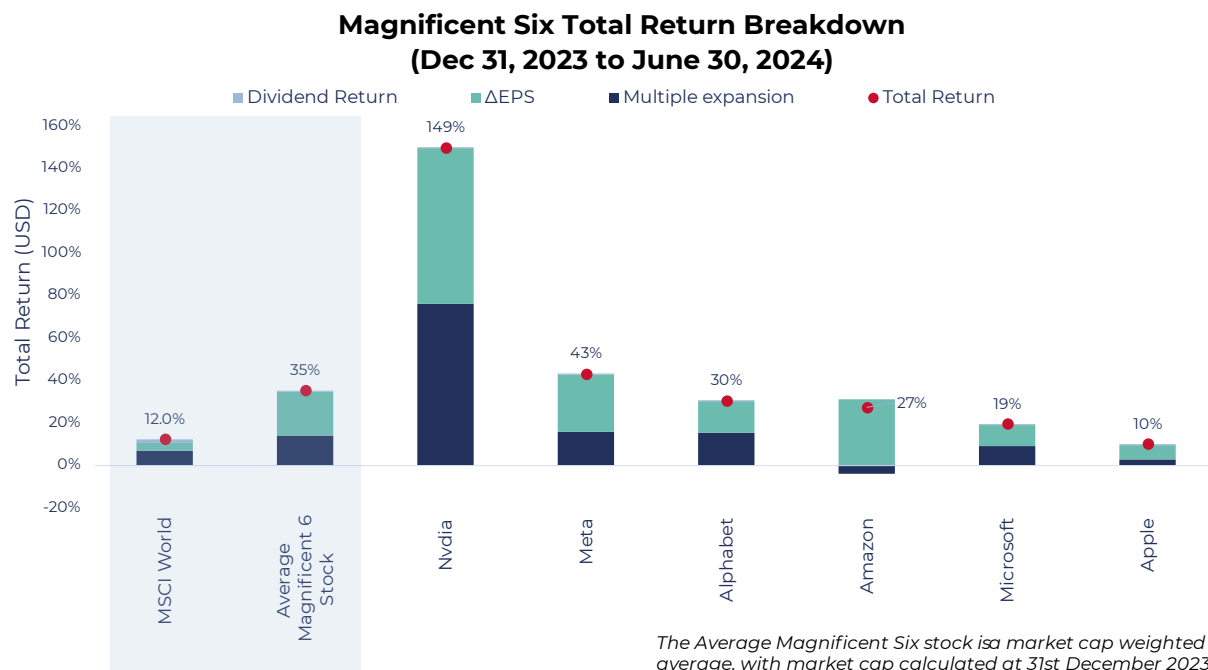
Magnificent Six Contribution to Total Return of S&P 500 and Sectors

Period 3: April 19th – June 30th 2024



Source: Guinness Atkinson Asset Management, Bloomberg, as of June 30th 2024

It may seem counterintuitive that these six stocks should outperform by such great magnitude in an environment where defensive revenues are more highly valued, given that they are from more cyclical areas of the market. Looking at the breakdown of returns for the Magnificent Six over the year, the reasoning becomes more clear. Over 2024, these stocks have seen a greater percentage change in 1 year forward EPS (a combination of earnings upgrades and earnings growth) than the market as a whole, and it is likely that a large portion of the MSCI World's positive change in EPS is a result of these six stocks. The Magnificent Six, all held by the Fund, are to some extent being viewed as a reliable source of earnings growth over the next 12 months at least.



Source: Guinness Atkinson Asset Management, MSCI, as of June 30th 2024

Where do markets go from here?

As mentioned earlier in the commentary, markets entered 2024 with a positive view on:

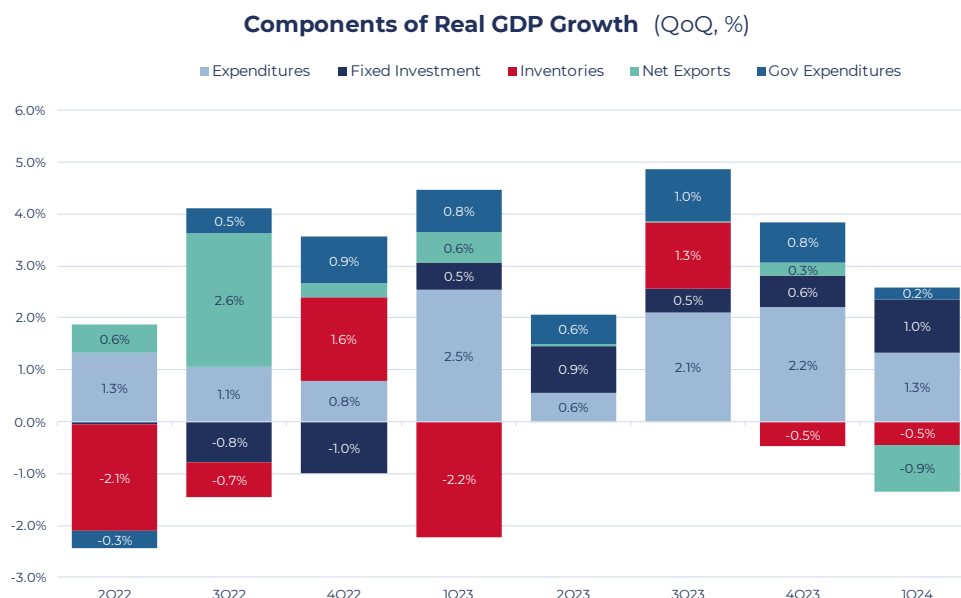
- a.) Economic Growth
- b.) Inflation
- c.) The future path of interest rates.

This was the basis for much of the equity strength seen in the initial stages of 2024, but the macro-economic back drop has shifted meaningfully over the past six months. Where are we now with respect to these themes?

a.) Economic Growth Remains Strong

The US economy has slowed over the past couple of quarters, but remains in robust shape. While the headline US GDP number for Q1 was disappointing (1.3% vs 2.5% expected, QoQ annualized), there were some interesting underlying dynamics. In particular, the slowdown was driven by a fall in investment in inventories and a decline in net exports. The decline in net exports was partly a result of consumer spending remaining so much stronger in the US than abroad, causing the trade deficit to widen. Positively, however, demand remained strong from both consumers and businesses alike. Consumption (expenditures) offered a 1.3% positive contribution to real GDP, with a quarterly growth rate of 2.0%. This is a solid result in absolute terms, albeit a slowdown from the 3.3% seen in Q4 - but still the most significant driver of economic strength. Fixed Investments from businesses offered a 1.0% contribution – up from 0.7% the prior quarter. Finally, a decline in inventory typically suggests expectations of future weakening demand, but this does not necessarily reflect what we saw elsewhere. Purchasing Managers' Indices (PMIs) in the US remain decisively in expansionary territory, with the Manufacturing PMI at 51.6 and Services PMI at 55.3 – indicating increasing business confidence (the Composite is at 54.8 vs 52.1 at the beginning of Q2). And US consumer confidence, while pulling back

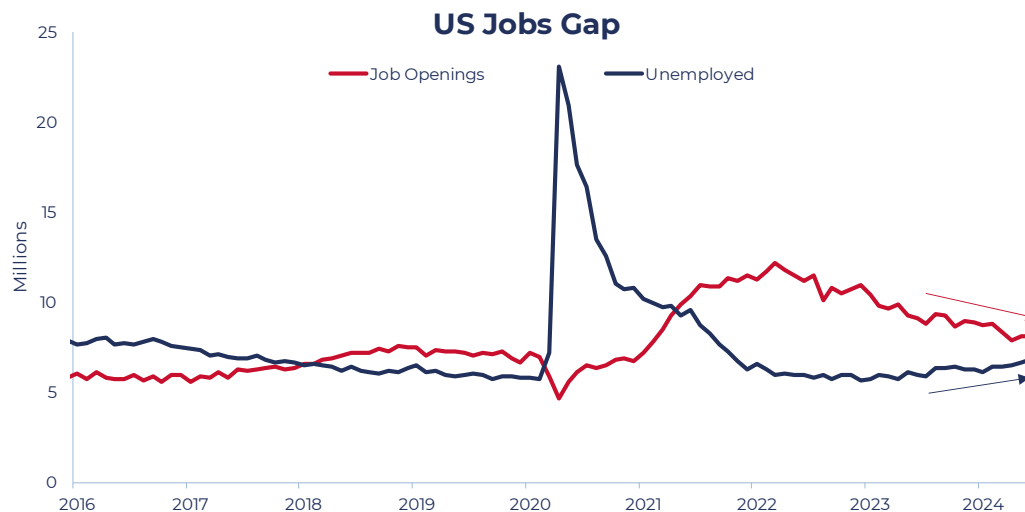
slightly in June, remains within a similar range that's been held over the past two years. Most importantly for equities, Q1 reporting season highlighted underlying earnings strength – 78% of companies reported a positive surprise to earnings per share, with average year-on-year growth of 7.8%.



Source: Guinness Atkinson Asset Management, Bureau of Economic Analysis, as of June 30th 2024

Where we are wary, with respect to economic growth

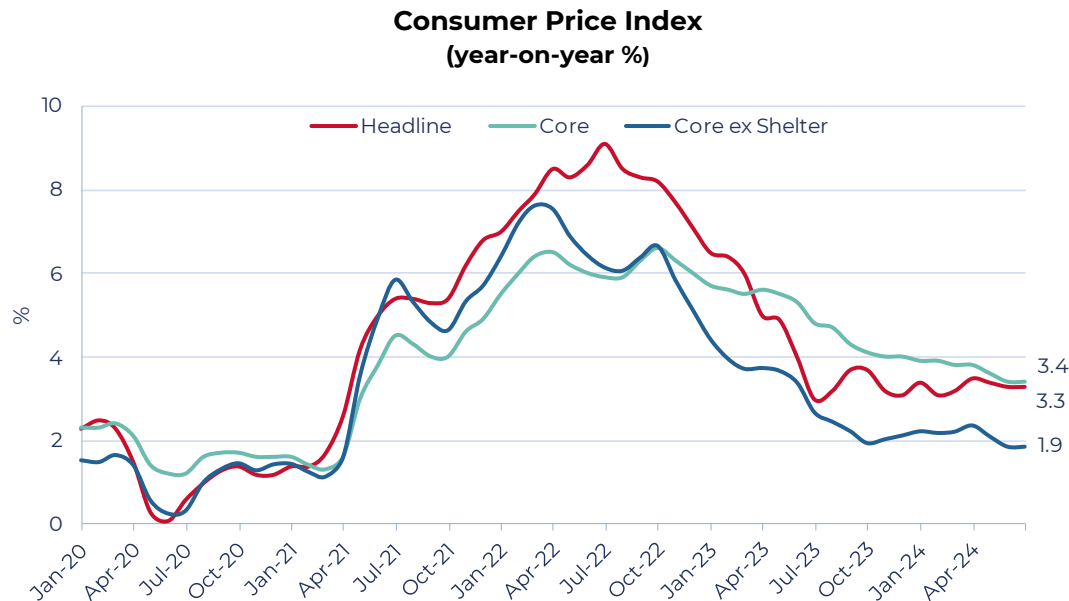
Strength of the consumer. Given the US consumer has been the key driver of economic growth over the past few years, a diminished spending environment is likely to play a key role in any economic slowdown. We are acutely aware that consumer strength is not uniform, and there are pockets of weakness emerging. This weakness is particularly concentrated amongst lower income households, which typically have a relatively low impact on overall consumer health. A number of companies including McDonald's, Coca-Cola and Nestlé reported a shift in purchasing habits towards cheaper options, suggesting consumers may finally be beginning to feel the pinch of inflation. This was backed by data that showed US credit card delinquencies in Q4 reaching their highest levels since 2012, when data began. As excess savings from the pandemic returned to zero for the first time during April, concerns emerged that the 'consumer-led' economy may be gently running out of steam. This weakening does, however, appear to be concentrated amongst lower-income households (as companies consistently noted in earnings reports), which are not a significant driver of spending, with overall spending remaining healthy. While a positive for inflation, a weakening in the jobs market can also be seen as the jobs gap closes, which may impact wage inflation and thus spending power.



Source: Guinness Atkinson Asset Management, Bureau of Economic Analysis, as of June 30th 2024

b.) Inflation has proven stickier than initially expected

This trend in both headline and core numbers was one of the key drivers behind such strong expectations of rate cuts at the beginning of 2024 (between 6 and 7 cuts in 2024 for the US, Europe and UK). The first four months of inflation prints of 2024 showed little progress, however, shifting the narrative slightly. Progress in the US seemingly stalled as 'Core' consumer price inflation (CPI), which excludes food and energy, remained at 0.4% month-on-month for the first three months prior of the year, and the year-on-year prints fell just 0.2 percentage points (from 4.0% to 3.8%) between October 2023 and March 2024. The Fed's preferred measure of inflation, core personal consumption expenditure (PCE), fell just 0.1% since December 2023 (from 2.9% to 2.8% in March). Perhaps most concerning, the 'Supercore' CPI index (which excludes the largest and stickiest contributor to core CPI, shelter), had been slowly trending upwards since September 2023.

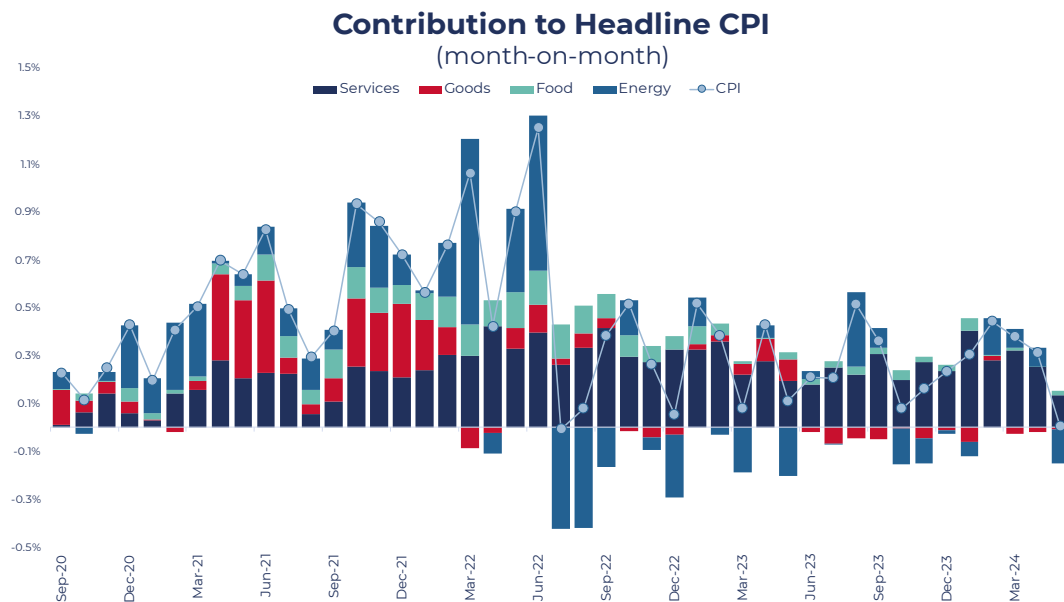


Source: Guinness Atkinson Asset Management, Bureau of Economic Analysis, as of June 30th 2024

Prints for April and May have given some reassurance that inflation is once again heading towards target levels. Headline consumer price inflation (CPI) in April and May came in-line and below expectations (unlike all prints since November), at 3.4% and 3.3% respectively. While this was just two consecutive months of 0.1% declines, Core CPI (CPI ex Energy and Food) and 'Super-Core' (Core ex Shelter) which are often seen as more representative of underlying cost pressures, both fell by 0.2% over both months. While these measures by no means show a decisive move towards continued disinflation, they are a move in the right direction following months of limited progress – particularly at the 'Super-Core' level, which is now just at 1.9% year-on-year (below target levels).

Reasons to remain wary, with respect to inflation

Services inflation remains firm. Services, widely regarded as a stickier component of inflation due to input costs stemming predominantly from wages, has been the core driver of inflation for around 18 months. Continued services inflation could prop up the core number, although a weakening in the jobs market (as mentioned above) is a positive signal. While May suggested a sharp slowdown in Services inflation, we are wary of projecting forward off of one month's data.



Source: Guinness Atkinson Asset Management, Bureau of Economic Analysis, as of June 30th 2024

Shipping costs are ballooning. We are also cognizant of the rising price of shipping, which has once again exploded following macroeconomic instability in the middle East, and the plummeting of shipping volumes through the Suez canal. In the three routes in the charts below, shipping container costs ranged between \$1000-2550 in October 2023. Today, this range is \$7500-9200. This could present a material headwind to disinflationary trends.



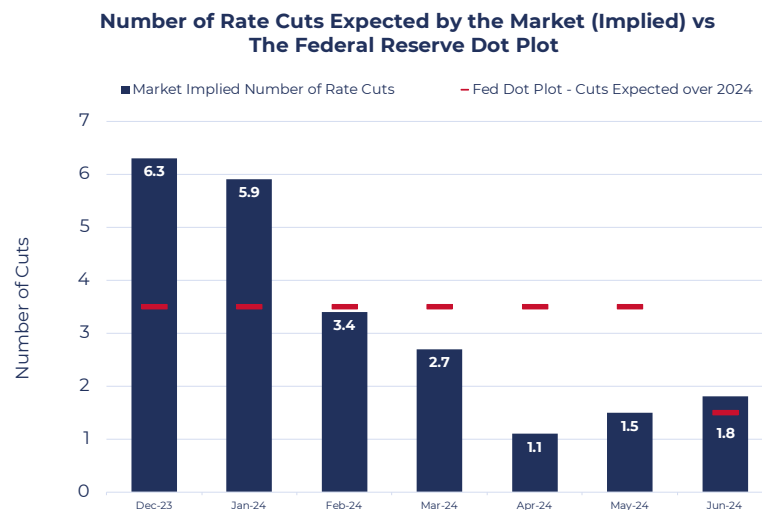
Source: Guinness Atkinson Asset Management, Drewry, as of June 30th 2024

c.) The future path of interest rates has shifted significantly.

With inflation continually surprising to the upside in the US over the year, expectations over how many rate cuts the Fed would undertake during the year have shifted significantly. Markets expected (implied expectations) between 6-7 cuts of 25 basis points (0.25%) at the beginning of the year, before falling to a

low of just a single cut in April - well below the 3.5 projected by the Fed's dot plot at the time. There were even some returning concerns that the Fed may need to tighten policy even further at some point during the year – almost an unthinkable proposition as 2024 began. The fact that the US economy, and the jobs market in particular, had remained so strong while disinflation started to stagnate afforded the Fed far more maneuverability with respect to monetary policy – with headroom to maintain rates at potentially higher levels than they otherwise could, had a weakening in the economy or jobs market also been present.

In May, we saw this downward trend end, with a slight uptick in the number of expected rate cuts – from 1.1 to 1.5, and then to 1.8 in June. While this change in expectations was marginal, this served to once again reduce fears of any potential rate hike. This sentiment was largely echoed by the Fed itself. In mid-May, Fed chair Jay Powell stated that although the Fed was likely to be “keeping policy at the current rate for a longer time than had been thought” due to a notable “lack of progress”, there was only a “very small probability” that the Fed’s next move would be a rate hike. The Fed’s latest dot plot (from June) implies just 1.5 rate cuts over the year, slightly below the 1.8 expected by the market.



Source: Guinness Atkinson Asset Management, Federal Reserve, Bloomberg, as of June 30th 2024

In contrast to the US, price pressures in Europe have made far greater progress over 2024, and unlike the Fed, the European Central Bank (ECB) was able to begin cutting rates at their June meeting, following the likes of Swiss and Swedish central banks. Whilst not totally unheard of, divergence from the Fed is uncommon. Policy has typically moved with a moderate level of ‘lockstep’ to that of the Federal Reserve - the reason being that any divergence may harm their economies due to the impact of exchange rates and thus import costs, which may in turn lead to further inflation. Hence, expectations of the number of rate cuts have fallen dramatically over the duration of 2024 – across regions. However, the European Central Bank highlight that inflationary pressures and dynamics are different in Europe to that of the US. The fact that Europe has not seen the same level of economic growth with economic data broadly surprising to the downside since 2021, has forced policymakers to cut rates earlier than their US counterparts in order to stimulate economic growth.

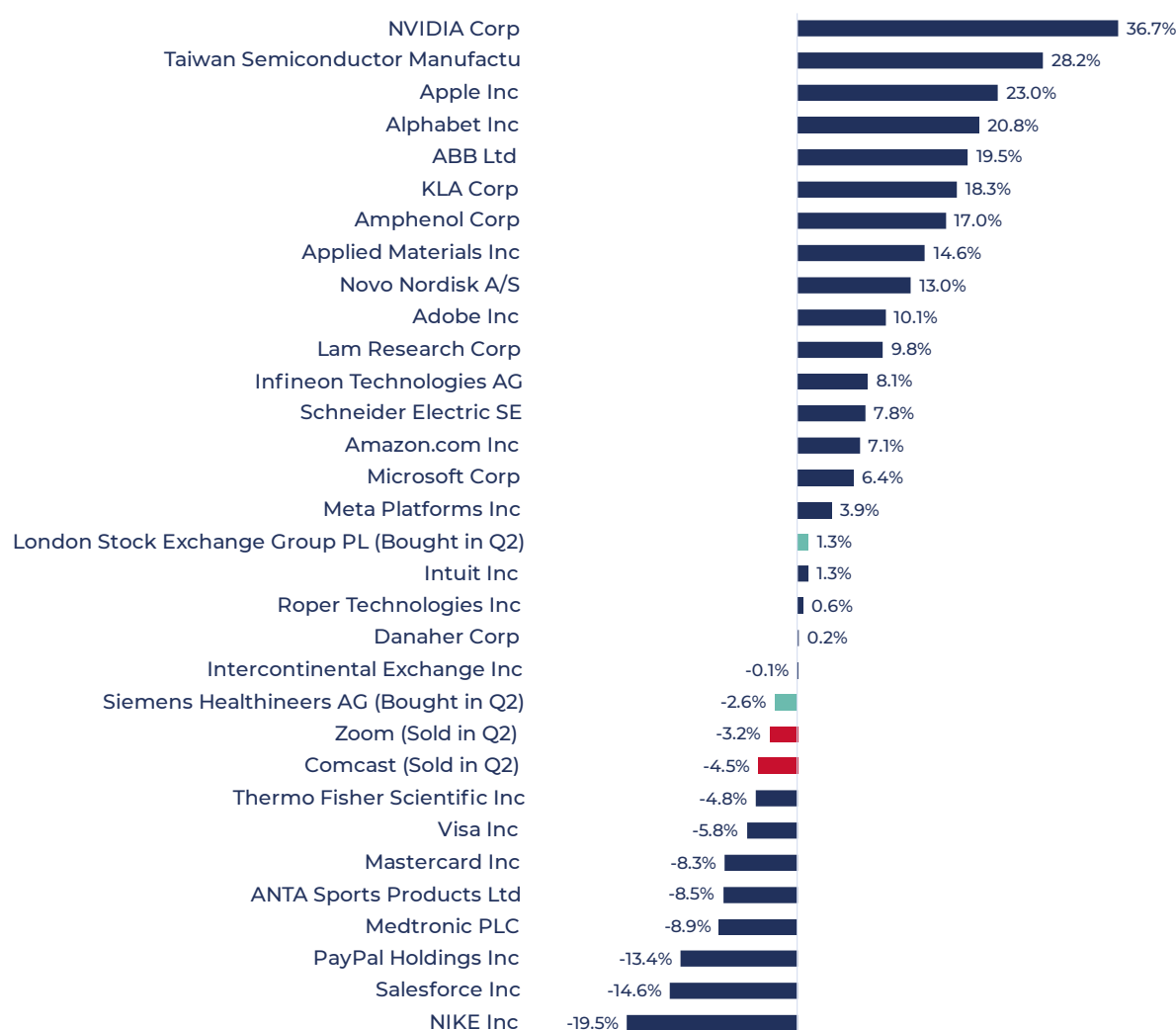
Reasons to remain wary, with respect to interest rates

Rate expectations have shifted significantly, and are likely to continue doing so. It is not a given that rates will move as expected, nor is it a given that they will necessarily impact equities as expected.

At the beginning of 2024, we noted the large discrepancy between market implied rates and Fed forecasts, with the market expecting around double the number of cuts than the Central Bank. We highlighted that should these market implied rate expectations fall in-line with Fed expectations, equities are likely to feel a sizeable headwind. What followed was a strong quarter of equity performance – despite this risk materializing. That being said, the future path of interest rates will be driven by the future path of inflation and the strength of the economy – both of which have risks of their own. The risk that rates do not move as expected is material, but we believe that the balance of risks lies firmly towards future rate cuts. When this occurs is another matter, but regardless of when it is, it will be to the benefit of equity valuations, as has so often been the case at the beginning of other rate cutting cycles.

Individual Stock Performance in Q2 2024

The chart below shows the portfolio constituents' returns over Q2 2024 in USD.



Source: Guinness Atkinson Asset Management, Bloomberg, as of June 30th 2024



Nvidia (+36.7% USD)

Nvidia ended the quarter as the top performer. Following a brief 'big-tech' sell off at the beginning of the quarter, Nvidia rebounded strongly as sentiment improved towards the macro-environment. The majority of outperformance, however, followed another bumper earnings season, where both top and bottom lines ended well ahead of analyst estimates. Quarterly revenues of \$26.0bn came in +5% ahead of already elevated analyst expectations (\$24.7bn), a remarkable +262% increase from the prior year. Since the beginning of last year, Nvidia's 'Hopper' GPUs have been at the center of exploding demand for chips powerful and efficient enough to facilitate the energy intensive requirements of AI processes within datacenters. Initially possessing over 95% of market share in these type of chips, Nvidia have been quick to entrench their position as the technological leader in the space, launching the successor to the current 'Hopper' GPU in March, Blackwell, inhibiting the likes of AMD (Advanced Micro Devices) and Intel making meaningful inroads in taking share of the fast growing market. Compared to the previous iteration (Hopper) which is continuing to fuel Nvidia's extreme revenue growth, the Blackwell chip is twice as powerful for training AI models and has 5 times the capability when it comes to "inference" (the speed at which AI models respond to queries). The firm's 262% growth during the quarter continues to be driven entirely by the firm's current generation Hopper (H100) chip, with shipments of Blackwell set to begin next quarter. In a strong positive signal to the market, CEO Jensen Huang indicated that demand for both Hopper and Blackwell were "*way ahead of supply*" and that this situation is likely to last "*well into next year*". When questioned on whether we would see any 'Blackwell revenue' this year, Huang replied "*We will see a lot of Blackwell revenue this year*". Positive stock momentum continued into June, where the firm surpassed Apple with a \$3tn market cap to become the world's second most valuable company. With no signs of AI demand slowing with continued commentary from big tech and cloud computing giants over large scale capital expenditure (capex), demand exceeding supply over the mid-term, guidance once again exceeding expectations for the next quarter (\$28bn vs \$26.6bn expected), and Nvidia's continued efforts at driving innovation within the technology, the firm remains in an incredibly strong position over the long term.



Nike (-19.5% UDS)

Following a disappointing Q4 earnings release (fiscal year ending May 31st), Nike ended the quarter as the Fund's bottom performer. After seeing flat revenues in FY24 and guidance for a slight decline in FY25 (ending May 2025), the reacceleration in revenue growth that the market had been patiently waiting for is set to be delayed further. A marked slowdown in the 'Lifestyle' portion of the product portfolio (~60% of sales) was the source of weakness, appearing to not only be a result of a soft consumer backdrop, but also increased competition from the likes of Adidas and challenger brands Lululemon and Hoka, all resulting in a multi-year market share slide. This quarter, management seemingly recognized that the current product portfolio (within Lifestyle) was not going to deliver an acceptable level of growth and have proactively announced a number of corrective measures to rebuild competitiveness – including a shift towards 'Performance' (i.e sports, rather than lifestyle), which is

growing nicely. ***'Accelerating our pace and scaling of newness and innovation'*** was one of the key pillars of the firm's new strategy, and moving aggressively to reestablish their 'innovating edge'. In some ways, this feels like an acknowledgement that the firm has missed the mark in recent periods – with respect to both strategy and the product portfolio. Most notably, this strategy includes cutting distribution and supply of older products (Air Force One's and Jordans, for example) in order to make room for a new, refreshed product portfolio which will be brought live at an accelerated rate over the next year. Market concerns are based on the resulting near term weakness, as much of the legacy portfolio comes offline and new products are weighted to the second half, with year-on-year growth now not expected until 4Q25. There are also concerns about rushing products through the product cycle (typically a 12-18 month project).

The share price has been under pressure over the past couple of years, with Nike failing to provide sufficient evidence of an improvement in the growth outlook. The most recent sell-off is an indication that the market seems to have simply run out of patience in this respect, following 6 consecutive quarters of weaker year-on-year growth, and an expected 7th next quarter (1Q25). Our largest concern is that one of the firm's key strategies – a shift to Direct to Consumer, announced back in 2020 – has coincided with a lack of competitiveness. The narrative around strategy appears to have shifted in recent periods, with management stating that they are focusing on "the overall marketplace" and "focused on driving growth where the consumer is" rather than focusing on "one particular channel or the other", and thus conversations with some Wholesalers have restarted. Thus, an unwinding of this position is likely to take time – as may too an improvement in competitiveness. That being said, Nike remains in an enviable position: they retain #1 market share across major markets, their brand equity is undoubtedly strong (even if diminished), the firm have a robust supply and distribution network with strong retailer relationships and broad category exposure – all while retaining a very strong balance sheet. The firm also have a track record in driving sales through innovation – as is now the plan to reignite sales growth. The last few years have, however, brought up some difficult questions, and we will be monitoring developments closely.

Changes to the portfolio:

In April, we sold two positions, Comcast and Zoom, and initiated two new positions, LSE Group and Siemens Healthineers.

Buys



Siemens Healthineers, spun out of the broader Siemens group in 2017, develops and sells medical technology solution to healthcare providers. The company specializes in imaging systems for MRI, CT and ultrasound scans as well as other diagnostics equipment and cancer radiology.

Siemens is well positioned to capitalisze on global healthcare trends including the digitalization of medical data, a shift towards more personalized medicine and the adoption of AI within MedTech. This is coupled with a track record of strong top line and bottom-line growth, backed by 50% recurring revenues. Siemens Healthineers were one of the first movers in advanced MRI & CT technology (contributing to about 50% total revenues) and with a decade of expertise in imaging, the company has maintained a dominant market position. Siemens Healthineers' market leadership runs across segments having acquired Varian, the #1 radiotherapy player in 2020, which strengthened an already diversified portfolio. The company has faced some margin pressure associated with acquisition costs

and supply chain issue in its Diagnostics segment post-Covid, however there are early signs that these inflationary pressures are now easing, which we expect to be accretive to margins. Ultimately the firm's scale and dominant market share positioning positions them well to capture the above healthcare trends, and given the underlying business quality, we believe the stock fits well within the Fund philosophy.



LSEG, owner of the London Stock Exchange, provides both data solutions and infrastructure for global financial markets. The firm is vertically integrated across the 'financial market value chain', with a presence across the trade lifecycle – from pre-trading data and analytics to post-trade clearing and reporting, across both primary and secondary markets. Until 2007, the firms' sole operations were running the London Stock Exchange, but have used acquisitions to shift the core of the business away from exchanges, and towards data and analytics.

LSEG have a high-quality business model, generating around 70% recurring revenues with a about 95% retention rate. Since the acquisition of Refinitiv into the business, LSEG has been working hard to improve product quality to compete more effectively in Data and Analytics, through their Refinitiv Terminal. The business has turned from a relatively low growth business that was exposed almost entirely to market trading cycles and listing revenues, to a high-quality, recurring revenue cash machine, with a number of promising growth drivers. Growth is underpinned by a number of levers across a diverse set of segments - Annual Subscription Value growth, Trading and Banking turnaround, CapEx spend on innovation and product improvements, pricing and market share gains to name a few - as well as a number of secular growth drivers (shift from active to passive benefitting the index business, regulation demanding greater disclosure, shift from over-the-counter securities to on-exchange). The firm's high recurring revenue stream makes it relatively resilient/defensive across all market conditions, while trading fees will ebb and flow with market volatility offering some offset to any equity market downturn, and thus outperforming when others may not. London Stock Exchange Group offers a diversified, cash generative, high margin business with recurring revenues and sticky products, with fundamentally decent growth drivers.



Zoom Video Communications has struggled since coming out of the pandemic with changing consumer trends and a tougher macroeconomic environment. At purchase, Zoom looked attractive from a valuation perspective, having derated from its 2021 highs to near pre-pandemic levels – despite being a fundamentally better business. The company had built a strong brand, with 'Zoom' becoming synonymous with online conferencing and video calling after the company's success during the pandemic, and the resulting paradigm shift towards increased hybrid working. What was once a more 'speculative' growth stock at the start of the pandemic, was now a slightly more mature growth company with high market share (underpinned by a best-in-class product), stickier revenues, and a stronger balance sheet with \$5bn in cash creating room for growth investment. With a superior

product and strong brand presence, growth expectations for the company were around mid to high single digits. However, since purchase, Zoom has returned -34% versus the MSCI World Index which was up 28%, with a growth profile that has disappointed. The company's key Enterprise segment has seen decelerating growth, with both customer growth and the net dollar expansion rate (Zoom's revenue per user metric) slowing significantly. Customer growth has slowed from a rate of 25% year-over-year (YoY) in the quarter prior to purchase to an estimated 3.6% by the first quarter of 2024. Net Dollar Expansion rate has slowed even further, currently at 101%(1Q24) vs about 123% at purchase. Much of this is owed to macroeconomic headwinds which have pressured many customers to 'scrutinize' existing deals and potentially move to cheaper contracts. Within the Online segment, which covers non-enterprise customers, the story has certainly improved, but has been underwhelming. At purchase, the segment had experienced high attrition rates associated with coming out of the pandemic, and while churn is now at all-time lows, revenues are expected to remain largely flat. It is worth noting that many of the headwinds affecting the business have been out of management's control, but the fact that the firm has not been able to reignite growth as these pressures have eased has been disappointing. That being said, the company has executed well on nascent product lines, and the company continues to see success in Zoom Contact Center and its AI integration into the original platform, thus diversifying the business away from the core video platform, and it is disappointing that this success has not been appreciated by the market. Looking forward, the growth outlook has somewhat degraded, particularly over the mid-term, and while Zoom continues to hold some quality attributes and long term growth levers, we believe there are better opportunities elsewhere.

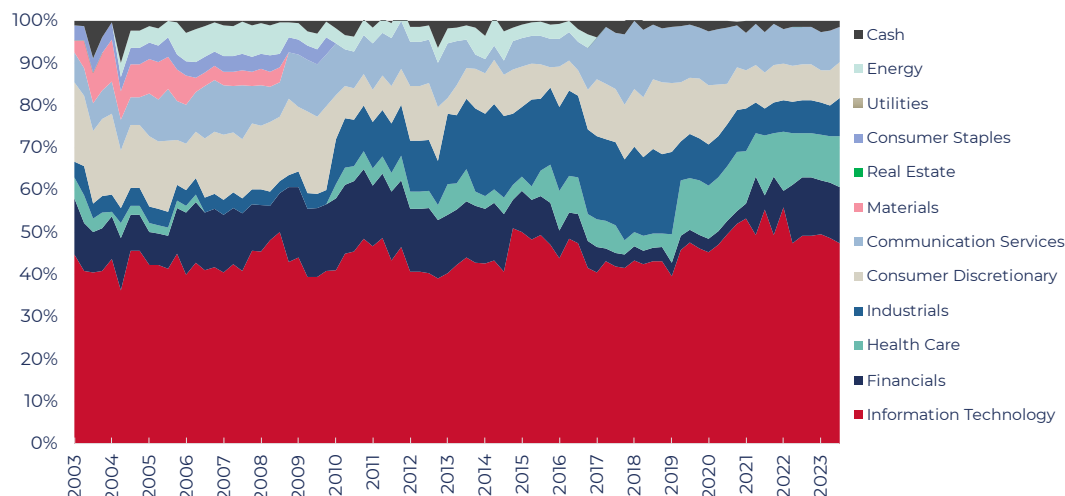


Comcast offers cable TV, internet, streaming, and phone services operating mainly in North America and Europe. Since 2009, when we first purchased the stock for the strategy, Comcast has returned 564%.

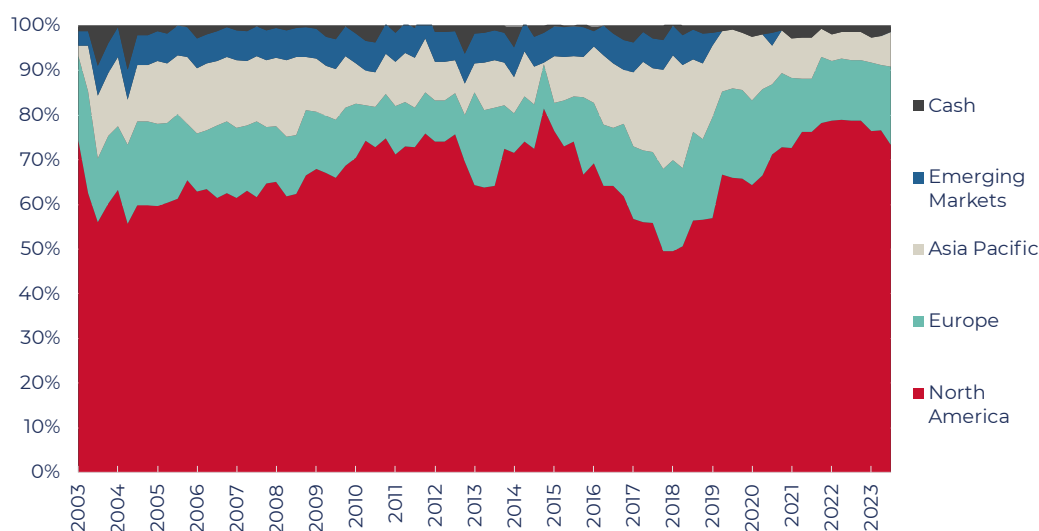
As the largest cable TV provider and broadband provider in the US, Comcast provided an attractive investment opportunity at purchase. Comcast boasted a wide economic moat from its well-established operational infrastructure and market dominance. However, having held the company for such a lengthy period, the market backdrop has shifted, as has the business. In recent years, the stock has been weighed down by several factors including slower growth in broadband and subscriber losses in its Cable TV segment, in part a result of increasing competition. The trend of cord cutting has increased with consumers turning away from traditional cable and satellite services, in favor of internet or streaming services. Comcast has attempted to build out its own streaming service Peacock to replace lost revenues however this is developing slower than anticipated and success has been limited. Comcast is still heavily exposed to traditional TV, creating uncertainty over the company's long-term growth prospects. This is coupled with stagnation in the broadband segment as Comcast has continued to see falling customers having lost 65,000 broadband customers in Q1 of 2024, in part a result of an uncertain macro-backdrop. Furthermore, Comcast has built over \$100bn in debt constraining their financial flexibility for investments, and scaling Peacock in particular. The stock has derated significantly since the pandemic, trading at 11x on a 1yr forward P/E vs highs of almost 30x in 2022, a reflection of the many challenges to the company's growth prospects. While Comcast remains a large market player in the US, in our view the company's business model has weakened, prompting us to look elsewhere for higher growth and higher quality opportunities.

Portfolio characteristics

The two charts below show how the exposure of the fund has evolved since we launched the strategy back in 2003. We continue to hold no exposure to Real Estate, Energy, Materials, Consumer Staples, and Utilities. Information Technology remains our largest exposure, split between the three sub-sectors of semiconductors; software and services; and technology hardware. On a regional basis, North America continues to be the largest exposure (69%), followed by Europe (22%) and Asia Pacific (7%).



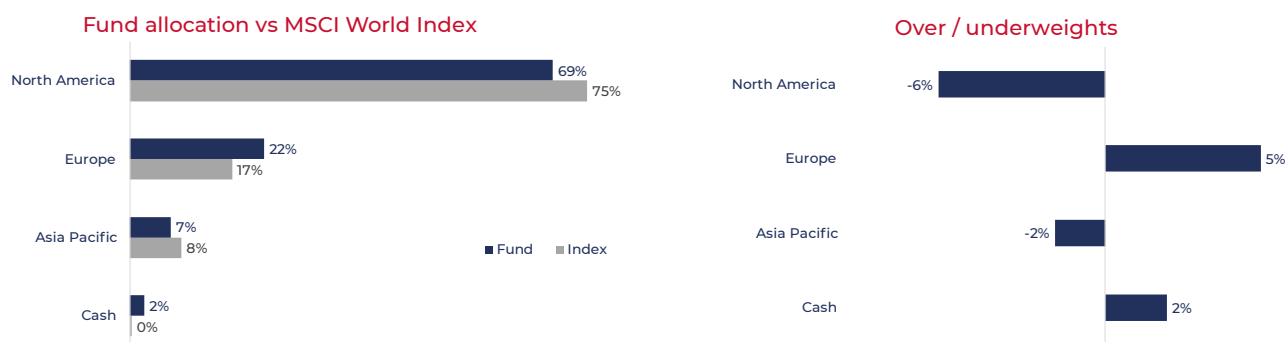
Portfolio sector breakdown. Guinness Atkinson Asset Management, Bloomberg (June 30th 2024)



Portfolio geographic breakdown. Guinness Atkinson Asset Management, Bloomberg (June 30th 2024)

On a regional level, the Fund shifted from a small overweight position, to a small underweight position to North America, following the sale of two North American stocks and the purchase of two European stocks in place. This has resulted in a small overweight position to Europe. Asia Pacific remains relatively underweight, relative to the benchmark.

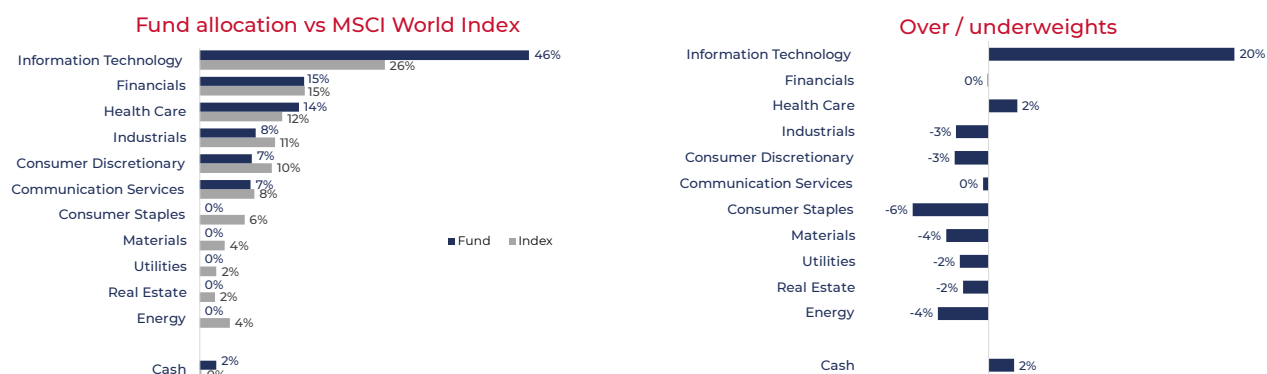
Geographic breakdown versus MSCI World Index



Guinness Atkinson Asset Management, Bloomberg (data as of June 30th 2024)

On a sector level, the fund continues to have a large overweight to IT (20%), while the fund's 0% exposure to Real Estate, Energy, Materials, Consumer Staples, and Utilities leaves these areas underweight relative to the benchmark. The impact of the buys and sells resulted in an increase to Healthcare (purchase of Siemens Healthineers), a reduction in Communication Services (the sales of Comcast), a reduction in Information Technology (the sale of Zoom), and an increase in Financials (purchase of LSE Group) bringing the Fund in-line with the index.

Sector breakdown of the fund versus MSCI World Index



Guinness Atkinson Asset Management, Bloomberg (data as of June 30th 2024)

Outlook

The Guinness Atkinson Global Innovators Fund seeks to invest in quality growth companies trading at reasonable valuations. By doing so, we seek to invest in companies that are experiencing faster profit growth, larger margins and with less susceptibility to cyclical pressures. In particular, our focus on quality growth-at-a-reasonable-price has shown its strength in avoiding the highly valued non-profitable tech businesses that have swung between large rises and falls, but ultimately underperformed significantly over the last two years.

The table below illustrates how the portfolio reflects the four key tenets of our approach of growth, quality, valuation, and conviction.

- **Growth** drives long-term returns. We focus on companies with exposure to long-term secular growth themes, that are expected to grow faster than the market over time, and which may offer more predictable, sustainable growth.
- **Quality** protects against downside risks. We focus on high and consistent return on capital, balance sheet strength, and sustainable competitive advantages. Valuation is important; we aim to avoid overpaying for (uncertain) future growth.
- **Valuation** is important – we will not overpay for future growth.
- **Conviction** is reflected in our high active share, 30-stock, equal-target-weight portfolio, long-term, low-turnover approach.

The fund has many superior characteristics to the broad market; higher sales and earnings growth, superior return on capital, and greater balance sheet strength, with higher historic growth. The fund currently trades at a 38.6% premium to the MSCI World Index on a P/E (2024e) basis, with expected earnings growth (2025 vs 2024) of 17.3% vs the MSCI World of 12.1%. Compared to the MSCI World Growth index, the Fund trades at an 8.5% discount (P/E 2024e), but with a comparable level of expected EPS growth (2025 vs 2024, Fund 17.3% vs MSCI World 17.7%).

Portfolio metrics versus MSCI World Index		Fund	MSCI World Index
Growth	Trailing 5-year sales growth (annualized)	14.2%	3.2%
	Estimated earnings growth (12M forward)	23.0%	12.1%
Quality	Return-on-Capital	21.5%	8.4%
	Median net debt / equity	14.1%	36.2%
Valuation	PE (2024e)	27.5x	19.8x
	PE (2025e)	23.4x	17.7x
Conviction	Number of stocks	30	1480
	Active share	78%	-

Source: Guinness Atkinson Asset Management, Bloomberg, as of June 30th 2024

The macroeconomic outlook certainly remains positive and the risks of a 'hard landing' or significant recessionary downturn appear to have abated since the sell-off in April. Longer term, the secular support of AI and its impact on productivity across many areas give cause for optimism. However, recent narrowness in the market is a slight cause for concern, and the path of inflation, central bank policy, and geopolitical events remain uncertain, although the recent beginning of a rate cutting cycle in Europe is certainly welcomed. We therefore continue to believe there is a good argument for high quality stocks with exposure to long term secular growth themes. We are confident that the Fund's focus on high quality growth stocks, underpinned by structural changes stands us in good stead going forward. Our bottom-up approach helps to identify these quality growth companies, while also maintaining a valuation discipline – particularly important in the context of a market where valuation is front of mind. In addition, our equally weighted positions limit over-reliance on any single company. We continue to focus on these key tenets in the Fund and remain confident of this process over the long term.

We look forward to updating you on the progress of the fund over the remainder of 2024.

We thank you for your continued support.

Portfolio Managers

Matthew Page, CFA & Dr Ian Mortimer, CFA

Summary performance

In the second quarter of 2024, the Fund returned 5.6% (in USD) and the MSCI World Index returned 2.6%. The Fund therefore outperformed the Index by 2.0% over the period.

Over the year-to-date, the Fund returned 18.5% (in USD) and MSCI World Index returned 11.8%. The Fund therefore outperformed the Index by 6.7% over the period.

Global equities began Q2 with a sharp sell-off, resulting in the first month of negative performance since October 2023. Mixed economic data and limited progress in bringing inflation down to target levels in the US led the Federal Reserve to suggest a further delay to the rate cutting cycle. This fueled concerns that the economy may be entering a low-growth, high-inflation period, instead of the 'Goldilocks' scenario (resilient economic growth and a continued steady decline in inflation alongside interest rate cuts) that had seemingly become the base case for 2024. Events over May and June served to 'derisk' these concerns, as economic data was positive (but not too strong, which would increase concern over inflation) and inflation showed progress, however slight, in moving towards target levels after barely moving in the preceding months of 2024. A strong earnings season saw broad earnings upgrades across sectors, adding to the positive sentiment over equities. In Europe, economic data suggested an improvement in the macro environment, and continued disinflation resulted in the beginning of a rate cutting cycle by the ECB, following the lead of Swiss and Swedish banks. Equity markets seemed unfazed by significant political events over the period, including a landslide win by Labour in the UK election, the conviction of a former (and potentially next) US President, and widespread calls for the current US President to pull-out of the US election following a disastrous TV debate.

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. For most recent month-end and quarter-end performance, https://www.gafunds.com/our-funds/global-innovators-fund/#fund_performance or call (800) 915-6566.

The Fund's relative performance over the second quarter can be attributed to the following:

- The Fund's overweight position to the Information Technology sector (and more specifically the benchmark's top performing semiconductor industry) was the greatest tailwind to Fund outperformance from an allocation perspective. Strength from Nvidia (+36.7% USD), off-benchmark name TSMC (+28.2%) and semi-cap equipment names KLA (+18.3%) and Applied Materials (+14.6%) all contributed positively to Fund outperformance.
- The Fund also benefited from strong stock selection within Industrials, where holdings ABB (+19.6% USD) and Schneider Electric (+7.9%) outperformed the broader MSCI World Industrials index by 22.0% and 9.8% respectively.
- The Fund benefited from a zero-weight allocation to some of the benchmark's underperforming sectors: Real Estate, Materials, Utilities and Consumer Staples, as well as a slight underweight position to Industrials and Consumer Discretionary.

as of 06.30.2024 (in USD)	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class¹	30.68%	7.20%	16.75%	12.30%
Global Innovators, Institutional Class²	31.02%	7.48%	17.04%	12.54%
MSCI World Index NR	20.19%	6.86%	11.76%	9.16%

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. For most recent month-end and quarter-end performance, https://www.gafunds.com/our-funds/global-innovators-fund/#fund_performance or call (800) 915-6566.

All returns after 1 year annualized.

¹ Investor class (IWIRX) Inception 12.15.1998 Expense ratio* 1.24% (net); 1.28% (gross)

² Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 0.99% (net); 1.13% (gross)

² Performance data shown for Global Innovators, Institutional Class (GINNX), prior to its launch date on 12/31/15, uses performance data from the Global Innovators, Investor Class (IWIRX).

*The Advisor has contractually agreed to reimburse expenses (excluding Acquired Fund Fees and Expenses, interest, taxes, dividends on short positions and extraordinary expenses) in order to limit the Fund's Total Annual Operating Expenses to 1.24% for the Investor class and 0.99% for the Institutional class through June 30, 2027. To the extent that the Advisor absorbs expenses to satisfy this cap, it may recoup a portion or all of such amounts absorbed at any time within three fiscal years after the fiscal year in which such amounts were absorbed, subject to the expense cap in place at the time recoupment is sought, which cannot exceed the expense cap at the time of waiver. The expense limitation agreement may be terminated by the Board of the Fund at any time without penalty upon 60 days' notice.

Mutual fund investing involves risk and loss of principal is possible. Investments in foreign securities involve greater volatility, political, economic and currency risks and differences in accounting methods. These risks are greater for emerging markets countries. The Fund also invests in medium and smaller companies, which will involve additional risks such as limited liquidity and greater volatility. The Fund's focus on the technology, internet and communications sectors are extremely competitive and subject to rapid rates of change.

Securities mentioned are not recommendations to buy or sell any security.

Current and future portfolio holdings are subject to risk. Dividends are not guaranteed and may fluctuate.

Top 10 holdings for Global Innovators Fund, as of 06/30/2024:

1. KLA-Tencor	4.45%
2. Amphenol Corp	4.42%
3. Applied Materials Inc	4.26%
4. ABB Ltd	4.22%
5. Lam Research Corp	4.09%
6. Microsoft Corp	4.02%
7. Taiwan Semiconductor Manufacturing Co	3.97%
8. Meta Platforms Inc. - Class A	3.71%
9. NVIDIA Corp	3.67%
10. Schneider Electric SE	3.65%

For a complete list of holdings for the Global Innovators Fund, please visit: <https://www.gafunds.com/our-funds/global-innovators-fund/>

The Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectuses contain this and other important information and can be obtained by calling 800- 915-6565 or visiting www.gafunds.com. Read and consider it carefully before investing.

Earnings growth is not representative of the Fund's future performance.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

Basis points (BPS) refers to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01%, or 0.0001, and is used to denote the percentage change in a financial instrument.

The **Consumer Price Index (CPI)** is an index of the variation in prices paid by typical consumers for retail goods and other items.

The **Core Consumer Price Index (CPI)** measures the changes in the price of goods and services, excluding food and energy.

The **European Central Bank (ECB)** is the central bank of the 19 European Union countries which have adopted the euro.

MSCI World Growth Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large and mid cap securities exhibiting overall growth style characteristics across developed markets.

MSCI World Value Index captures large and mid cap securities exhibiting overall value style characteristics across 23 Developed Markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

The **MSCI World Quality Index** is based on MSCI World, its parent index, which includes large and mid cap stocks across 23 Developed Market (DM) countries. The index aims to capture the performance of quality growth stocks by identifying stocks with high quality scores based on three main fundamental variables: high return on equity (ROE), stable year-over-year earnings growth and low financial leverage.

The **Manufacturing Purchasing Managers' Index (PMI)** measures the activity level of purchasing managers in the manufacturing sector. A reading above 50 indicates expansion in the sector; below 50 indicates contraction.

The **Service PMI** release is published monthly by Markit Economics. The data are based on surveys of over 400 executives in private sector service companies. The surveys cover transport and communication, financial intermediaries, business and personal services, computing & IT, hotels and restaurants.

Cash Flow is the total amount of money and cash equivalents being transferred into and out of a business.

The **Nasdaq 100 Index** is a basket of the 100 largest, most actively traded U.S. companies listed on the Nasdaq stock exchange.

The **price-to-earnings ratio (P/E ratio)** is the ratio for valuing a company that measures its current share price relative to its earnings per share (EPS).

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Capital Expenditure (CAPEX) Funds used by a company to acquire or upgrade physical assets such as property, industrial buildings or equipment.

The **S&P 500 Index** features 500 leading U.S. publicly traded companies, with a primary emphasis on market capitalization. It is a float-weighted index, meaning the market capitalizations of the companies in the index are adjusted by the number of shares available for public trading.

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

Earnings per share (EPS) is calculated as a company's profit divided by the outstanding shares of its common stock.

Return on capital (ROC) is a ratio that measures how well a company turns capital (e.g., debt, equity) into profits. In other words, ROC is an indication of whether a company is using its investments effectively to maintain and protect their long-term profits and market share against competitors. Return on capital is also known as return on invested capital (ROIC).

Net debt is a liquidity metric that's used to determine how well a company can pay all its debts if they're immediately due. Net debt shows how much cash would remain if all debts were paid off and if a company has enough liquidity to meet its debt obligations.

The value of the business, minus debt on the business, divided by the value of the business is how **Net Equity** % is calculated.

Active Share tracks the disparity between a portfolio manager's holdings and that of its benchmark index.

One cannot invest directly in an index.

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