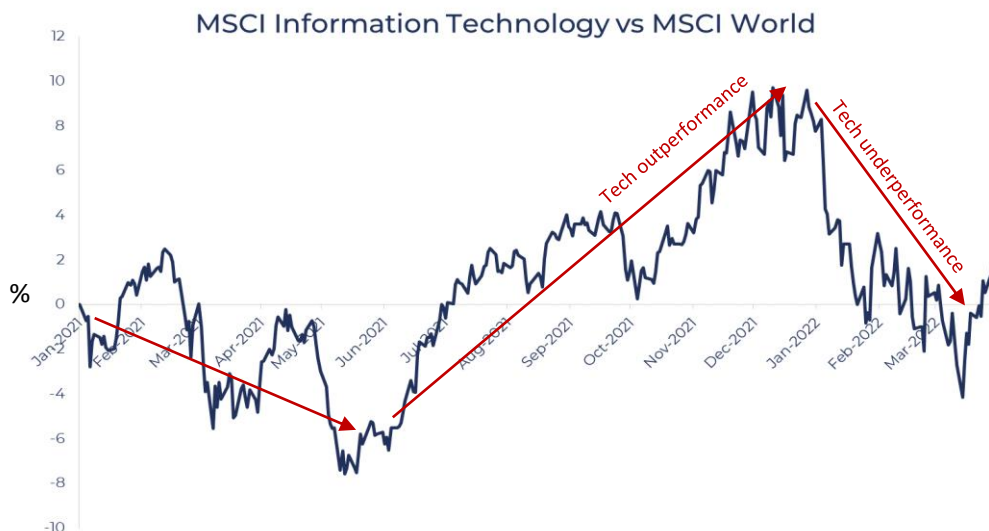


Quarter in Review

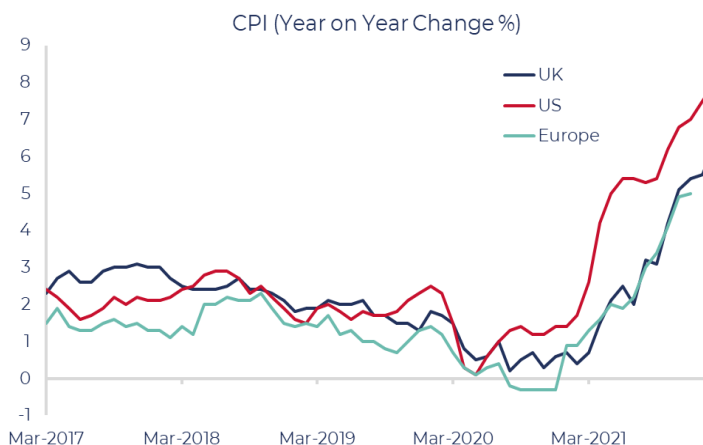
Following a strong period of tech outperformance versus the MSCI World since May 2021, the first quarter saw the sector sell-off and all but wiped out the previous year’s gains. Underperformance can be put down to a number of factors, including an increase to the discount rate, weak performance of ‘unprofitable tech’ companies, a shift towards “risk-off” sentiment, and a number of weak earnings releases during the quarter.



Source: Guinness Atkinson Asset Management, Bloomberg

Growth stocks tend to be “high duration” in nature, with the majority of their cash flows forecast to materialize long into the future. Consequently, these companies are typically more sensitive to changes in interest rates and yields, as not only do they have a greater exposure to borrowing costs to fund said growth, but are an important component within the discount rate in which to measure the present values of future cash flows. The technology sector, in particular, has a significant ‘overweight’ position to these “high-duration” growth stocks.

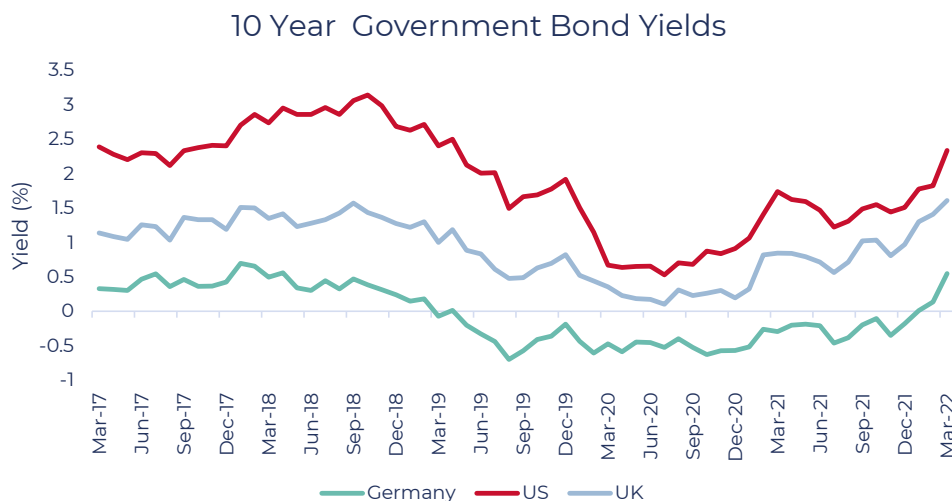
The shifting stance of global Central Banks towards more hawkish policies accelerated at the turn of the year. Early in January, The Federal Reserve released their FOMC (Federal Open Market Committee) meeting minutes from December, indicating that interest rate hikes would be “required faster and sooner”, sparking a sell-off in both bonds and equities. In recent months, monetary policy has been put under the spot-light as consumers deal with inflation at 40-year highs (in the US). Fueled by higher energy, food and shelter costs, US inflation reached 7.9% in February, the fastest annual rate since 1982 and up



Source: Guinness Atkinson Asset Management, Bloomberg

almost 1% since January. Yet even stripping out Food and Energy, ‘core CPI’ reached 6.4%, again the highest level since 1982, highlighting the breadth of inflation.

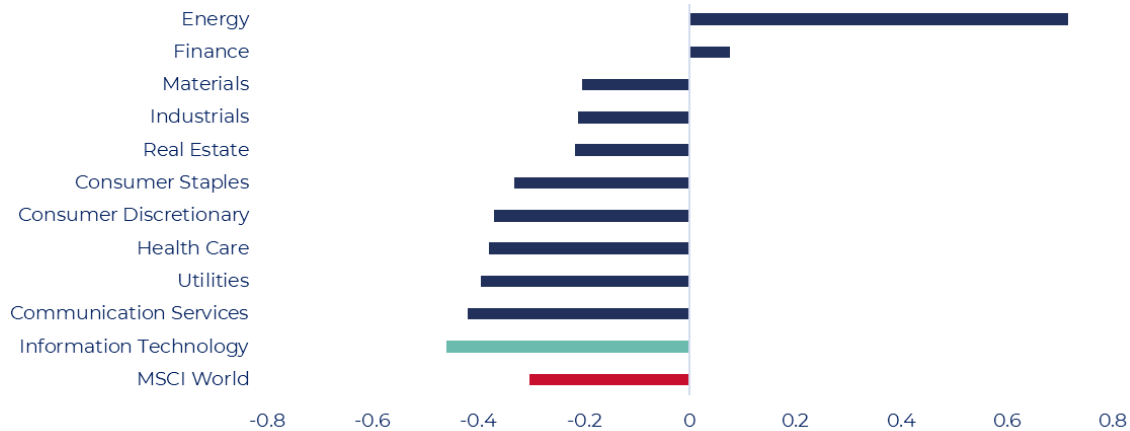
With inflation now proving to be less “transient” than first thought, and with employment generally stable, this has stimulated many central banks into action. The Banks of England has now raised rates a second time since their first hike in December, and the US made their first hike in March. While policies began to shift at the end of last year, the rapid rate of change for these expected hikes has created the greatest market concern. At the end of Q4, the Federal Reserve’s “dot-plot” graph of individual interest rate hikes indicated members expected three hikes during 2022. By the end of the quarter under observation, the dot plot indicated a total of seven. Markets are pricing in a potential 8-9 hikes during the year, potentially concerned that the Fed is underestimating how long inflation could impact consumers and businesses alike. Consequently, with markets pricing in a faster rate of hikes, 10 year Treasury yields sharply rose across regions, with the German 10 year Bund even crossing into positive territory for the first time since early 2019.



Source: Guinness Atkinson Asset Management, Bloomberg

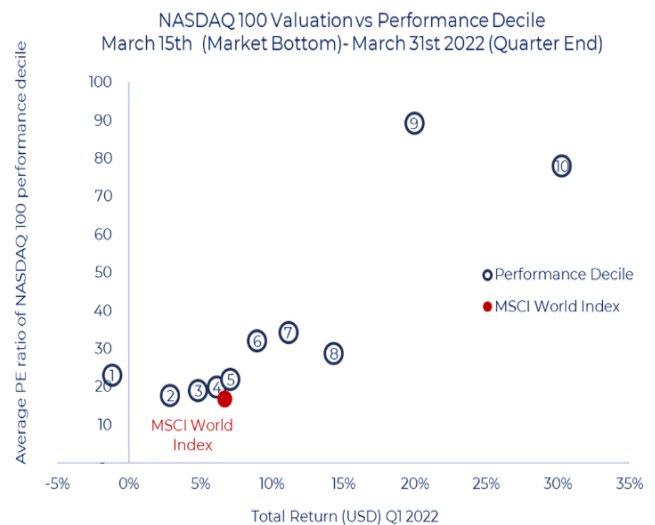
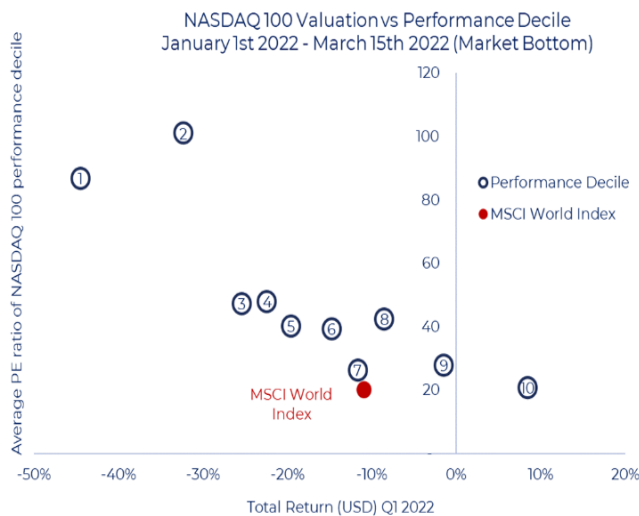
As can be seen below, while most sectors tend to have a negative correlation with the US 10 year treasury yield, the MSCI Information Technology Index is shown to be the most sensitive to increases in yield.

Correlation between MSCI Sector and US 10y Treasury Yields
 10 years to 3/31/2022



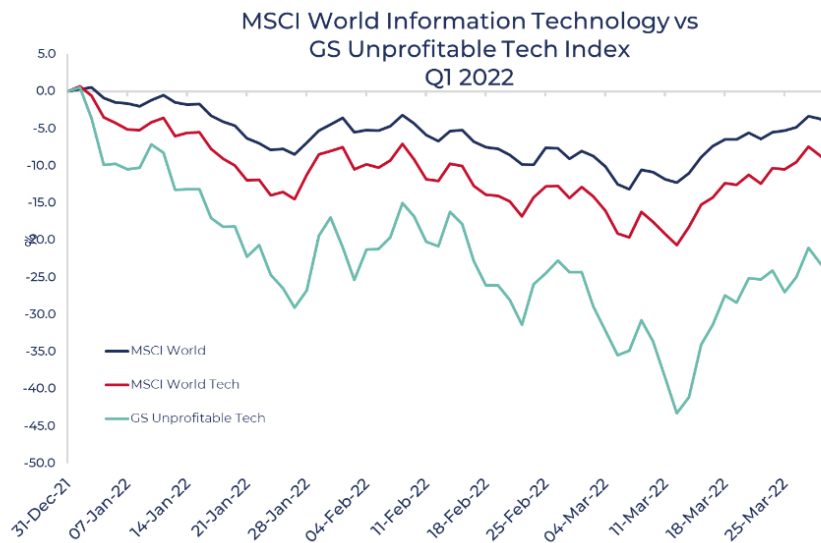
Source: Guinness Atkinson Asset Management, Bloomberg

With inflation driving interest rate expectations and yields upwards over the month, this therefore created a strong headwind for most high-duration technology companies – but some more than others. We have seen over the quarter a stark difference in performance between the ‘higher duration’ hyper-growth stocks and ‘quality growth’ stocks, where current valuations have a lower weight on future growth prospects. This can be seen in the first chart below, where the bottom two deciles of performers (labeled 1 & 2) in the Nasdaq 100 (regarded as a more growth/tech focused index) since the beginning of the year until March 15th (where the market bottomed out), were also the highest valued (on average) on a 1 year forward PE basis. At the other end of the spectrum, we can see lower valued stocks performing in the top two deciles (9 & 10). In the second chart, which covers the period between the market bottoming out and the end of the quarter, this phenomenon reversed as the market recovered some of its previously lost gains and we see outperformance of growth, and therefore highly valued stocks.



Source: Guinness Atkinson Asset Management, Bloomberg

Observing the Goldman Sachs Unprofitable Tech Index over the quarter reinforces this point. The index, which is made up of a basket of unprofitable tech companies, significantly underperformed the broader MSCI Technology Index over the quarter. These companies were typically the more speculative stocks with “frothier” valuations, and with most cash flows forecast way out into the future, a rise in bond yields affected these companies the most. In times of market distress, investors prefer the sanctuary of quality stocks with good balance sheets, stable earnings and strong fundamentals. This graph also highlights that when growth returns to favor, these ‘unprofitable tech’ stocks tend to outperform, as can be seen in the last couple of weeks in the quarter.



Source: Guinness Atkinson Asset Management, Bloomberg

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. While our high exposure to the IT sector means we are not immune from the potential impact of rising rates on valuations, our investment philosophy has always been to seek out companies delivering profitable growth, steering us away from companies that are the most sensitive to changes in interest rate expectations. In the Fund we continue to apply a ‘valuation discipline’ to stock selection and monitor carefully the valuation we are ascribing to future growth vs that of the current business. We believe the secular growth trends and innovation themes that our companies are exposed to are unlikely to be slowed down significantly by higher levels of inflation and we believe the fundamental outlook for our companies remain robust.

During the quarter, not only did we see a rotation away from growth, but we saw a rotation into more defensive areas of the market, such as Consumer Staples and Utilities. The outbreak of war in Europe fueled a number of negative market indicators that sparked this rotation. In the UK, consumer sentiment plummeted at the prospect of stagflation. Not only did the Office for Budget Responsibility downgrade the UK’s growth outlook from 6% (forecast October 2021) to 3.8%, but inflation reached 30 year highs. The situation was similar in Europe, where German inflation reached 40 year highs (CPI 7.6%) and the economy’s 2022 growth forecast was slashed from 4.6% to 1.8%. In the US, the 10yr vs 2yr yield curve inverted, a popular forward indicator for impending recession. 10

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022

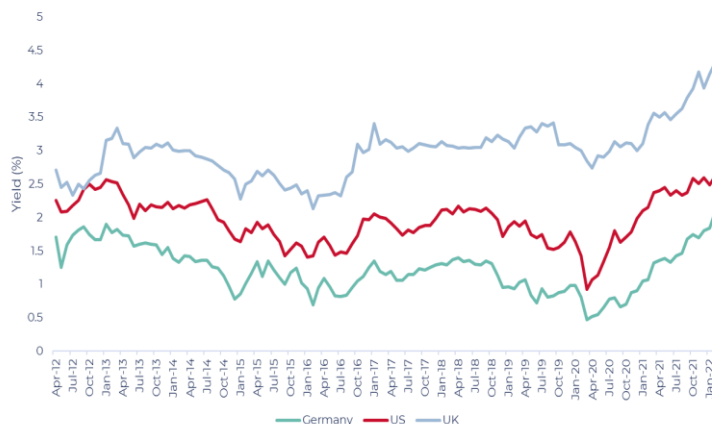


year government breakeven, a common indicator of future inflation market expectations, also rose sharply to new 10 year highs.

10 Year vs 2 Year Government Bond Yields



10 Year Government Breakeven



Source: Guinness Atkinson Asset Management, Bloomberg

It is not all doom and gloom for equities, however. Manufacturing PMI's remained firmly above 50 in the US, Europe and UK, indicating largely un-dented business sentiment following the invasion of Ukraine. And while the recent quarter reduced the deficit significantly, the real-risk free rate remains firmly below zero, helping to prop up equity markets where investors are able to earn a real return. Equity investors can also take comfort from the fact that while monetary policy is tightening, fiscal spending and Capex is increasing. We believe the secular growth trends and innovation themes that our companies are exposed to, matched with a quality focus and a valuation tilt, deliver a strong fundamental outlook for our companies.

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022



Stock performances over Q1 2022 (all total return in USD):

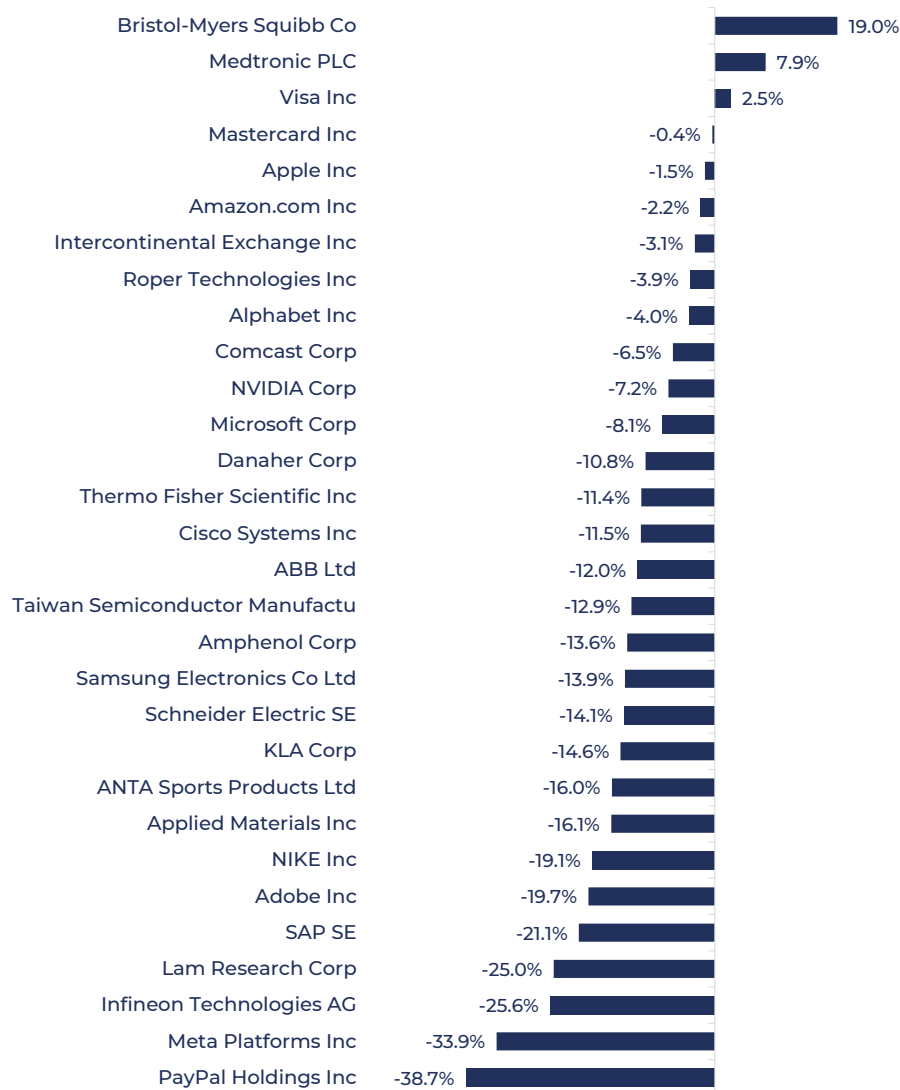


Figure 1: Performances of fund constituents. Guinness Atkinson Asset Management, Bloomberg, (total return USD)



Bristol-Myers Squibb (+19.0% USD), Medtronic (+7.9%)

While health-care was just the fifth top performing sector during the quarter, the Fund's top two performers for the period were both health-care stocks.

Bristol-Myers Squibb was the fund's top performer during the first quarter, with the firm's +19.0% USD total return over the period significantly outperforming that of the MSCI World Healthcare Index (-3.20%). The drug manufacturer presented at the JP Morgan Healthcare Conference early on in the month, announcing their long-term strategy and guidance, which was well received by the market. The firm's top-selling cancer drug, Revlimid, which accounted for 27% of sales last year, comes off patent in March 2022, and is expected to face stiff competition from generic brands.

While this was likely already baked into the share price, until the conference there was little clarity over the firm's strategy to deal with this patent cliff. Announcements surrounding the firm's product pipeline and long term business strategy during the conference was met with a strong positive market response, the stock rising +3.61% USD from the previous days close. The firm expects its current immuno-oncology brands (Opdivo and Yervoy) and blood-thinner (Eliquis) to add an additional \$8-10bn in sales by 2025 (these brands already account for about \$18bn), and longer term, the firm's new product portfolio (most notably reblozyl, deucravacitinib, mavacamten and relatlimab) could generate \$25 billion or more annually by 2029. The firm has an additional 50 drugs in the product pipeline. Overall, the diversification offered from a number of promising drug hopefuls acted to reassure investors of the long term future of the firm.

Following a set a solid set of 4Q21 earnings, with the firm coming largely in line with estimates, the firm later announced an acceleration in the share buyback program (\$5bn expected to settle in Q2 and Q3 alone, and a \$15bn increase in total). More positive news followed when the firm announced positive results in the Phase 3 trials of one of their "new product portfolio" drugs, rare cardiovascular disease drug Mavacamten, which is viewed as one of the firm's most promising drugs hopefuls, and addressed lingering market concerns with the product.

Medtronic was the firm's second top performer during the month, outperforming the MSCI World Healthcare Index by +11% (USD). The stock slowly declined for much of the first few weeks of the quarter, with investor expectations softened after peers announced material impact from the outbreak of Omicron. Yet, the firm's 3Q22 earnings announcement catalyzed a strong re-rating in the latter half. While revenues came in relatively flat, the firm managed to grow margins through keeping a tight lid on expenses, despite the inflationary environment. Gross margins were up 200bps (basis points) since 3Q21 to 68.32%, and operating margins up 470bps over the same period (to 22.23%). The firm also gave initial FY23 guidance (current FY for MDT), with a +5% growth target from management topping analyst expectations. Recovery trends on the top-line have continued to improve, as management expect a return to pre-pandemic levels in late April.



Visa (+2.5% USD), Mastercard (-0.4% USD)

Mastercard and **Visa** featured third and fourth respectively in the Fund's top performers during the quarter. The electronic payments companies generate revenue through processing transactions across their respective networks, whether this is a credit-card payment, debit-card payment or cross border transaction. Each transaction, the firm will earn a flat-fee (switch transaction fee) and a percentage of the gross dollar volume (switch volume fee). The firms therefore benefit when transactional activity picks up in both value and volume, generating greatest margins on cross-border transactions.

Both firms experienced positive price reactions following quarterly earnings announcements during January, with spending on the respective networks reaching record levels. In the final quarter of the year, Mastercard and Visa saw spending on their networks surge +27% and 20% respectively. Much of this volume growth has come from domestic spending, with the pandemic expected to have catalyzed the shift from cash to electronic payments. Yet it is the high-margin cross-border payments segment that carried the majority of investor attention, with volumes rising +53% and +40% respectively, despite the emergence of Omicron in the final month of the quarter. Pent-up demand for travel and the re-opening of borders spurred this growth, alleviating investor concerns about the magnitude of the Omicron impact, with investors and management alike no longer expecting a lasting impact. While cross-border payments are yet to completely recover, both companies guided for cross-border travel volumes to reach above 2019 levels by the end of the fiscal year, as falling case counts and higher global vaccination rates help to alleviate covid pressures. Near-term uncertainty remains, with the potential rise of new variants and further lockdowns, but the acceleration of cash to electronic payments and further upside yet from the re-opening of economies provides a strong outlook for both Visa and Mastercard.

Despite this strong performance in the opening month, the war in Ukraine threatened year to offset this performance, causing both stocks to sell-off in excess of 13% in the days following the invasion. In response to the invasion, both firms suspended all operations and transactions in Russia – although payment cards issued by Russian banks would continue to work within the country borders until expiration. Russia represented about 4% of revenues for both firms, and as the Russian payment network switches to China's Unionpay, it is unlikely these revenues will return. Despite this drag, the stocks rebounded strongly at the end of March, eradicating the losses felt following the sell-off. News that the firms would bring forward their much anticipated credit-card fee hikes helped spark a rebound, with the stocks also caught up in the general rebound in growth towards the end of the period.



Paypal (-38.3%USD)

Paypal was the fund's bottom performer, falling (-38.3% USD) over the quarter. Following the outbreak of the global pandemic in 2020, share prices surged as an accelerated shift from cash to digital payments took place, supported by a significant upswing in ecommerce. Year-on-year revenue growth topped out at +30.6% in Q1 2021. However, the firm has struggled ever since a weak 2Q21 earnings release in July last year. The firm's failed \$45bn bid for Pinterest was met with investor pushback, and a second miss to consensus in a row during their 3Q21 catalyzed further downgrades.

Despite breaking the streak of missing consensus at the top-line, the firm's 4Q21 earnings release saw the share price fall 25% in one day. Revenue growth (+13%) came in slightly ahead of management's guidance mid-point and EPS was in-line at (+4%). However, it was management guidance that concerned the market more than most, with the firm having to abandon its target set just last year of reaching 750m users, after finding that many of the 120m new customers added over the two years of the pandemic were no longer 'active'. Previous strategies and targets focused on user growth, yet this quarter represents a pivot towards a more engaged user (33% of users currently drive the majority of total payment volume), aiming to improve the average revenue per user (ARPU's). This quarter was perhaps a necessary opportunity for management to reset expectations in order to return to beats and raises, following a level of hype built up over the pandemic.

While this was clearly a difficult quarter for Paypal, we now expect the majority of the pain to be over. Revenue growth is expected to bottom out next quarter at +6.2%, before climbing back to +16% for the full-year, and +21% for FY23 – ahead of pre-pandemic levels. The headwind from the eBay disposal (about 3% of total payment volume) has diminished significantly, the firm's Buy Now Pay Later business is growing rapidly with Total Payment Volume jumping +325% year-on-year (\$3.2bn total during the quarter) and the firm's Venmo platform grew revenues in excess of 80%. Expansion into new product areas such as credit-cards and cryptocurrency offer further visibility to catalysts down the road. While growth has slowed as consumers returned to the high street, growth is expected to remain above pre-pandemic levels on an annual basis. With a strong outlook and solid fundamentals, paired with a 1-yr forward P/E ratio at 24x, a 33% discount to its all-time average (since 2015), we continue to view Paypal as an attractive opportunity.



Meta (-33.9% USD)

Meta suffered a 26.4% fall in a single day following their Q4 earnings announcement, wiping out \$230bn of its market capitalization. During the quarter, Meta reported a fall in users for the first time in history, with CEO Mark Zuckerberg citing strong competition from fast growing rival TikTok, a company which he had previously labeled "the most effective competitor we have ever faced". The firm has also suffered a \$10bn headwind from Apple's privacy changes to their operating system iOS 14, which prohibits certain data collection and sharing, significantly

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022

reducing the accuracy of targeted ads. These factors combined to lead to a -4.3% surprise to the bottom line. While the firm is clearly subject to a number of headwinds, the market reaction appears unwarranted. The core advertising business continues to perform well, with an increase in advertising revenue of 20% in Q4, and with margins of over 50%. The firm retains the world’s largest user base and will continue to attract advertising revenues despite privacy changes – which will have an outweighed negative effect on smaller competitors with lower investing capabilities. The firm is also likely to improve targeted advertising accuracy over time, through spending on new advertising measurement tools helping to improve advertising return on investment.

Changes to the portfolio:

During the quarter, we made no changes to the portfolio.

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 (73%), followed by Europe (15%) and Asia Pacific (9%).

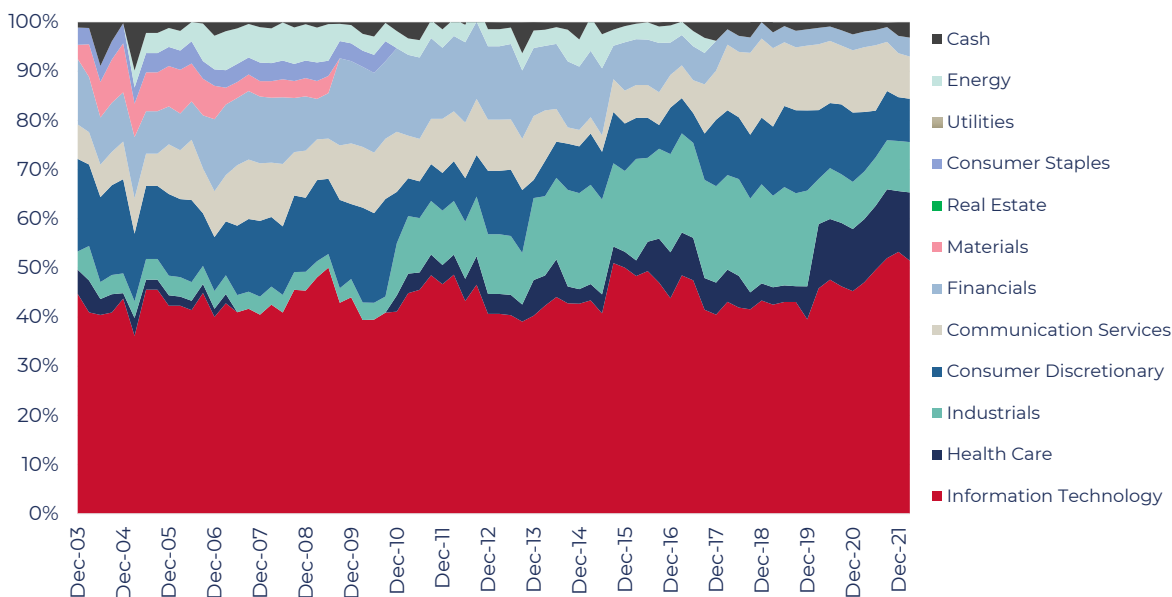


Figure 3: Portfolio sector breakdown. Guinness Atkinson Asset Management, Bloomberg (03. 31.2022)

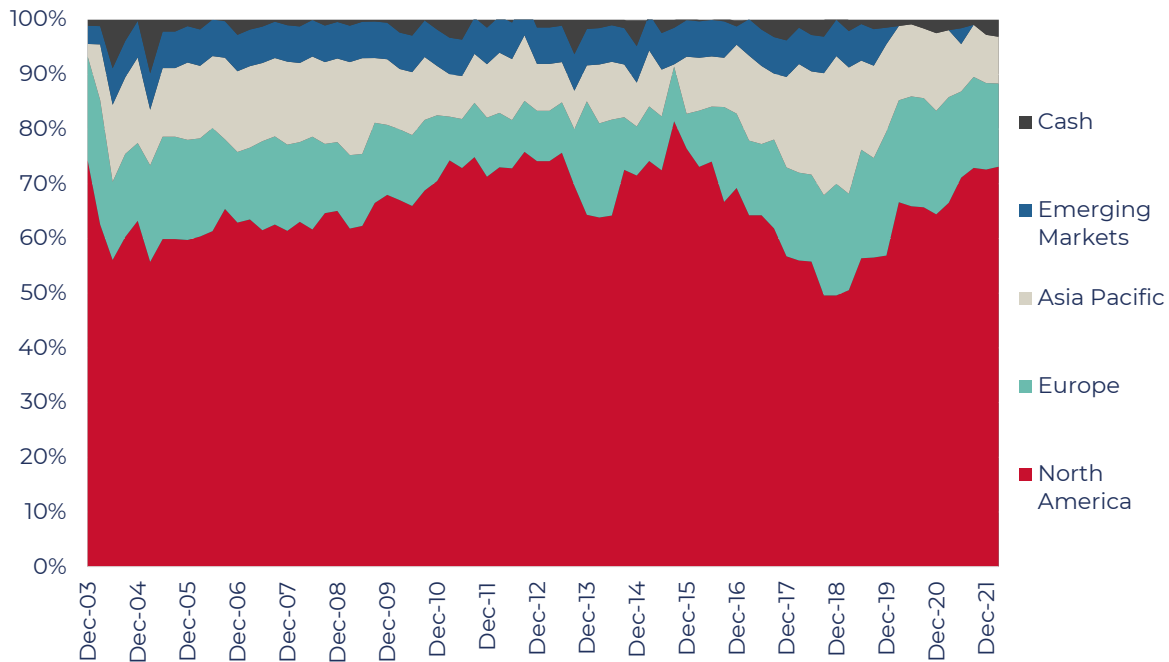


Figure 4: Portfolio geographic breakdown. Guinness Atkinson Asset Management, Bloomberg (03.31.2022)

On a regional level, at the end of the quarter the fund held a relatively neutral position to North America, with Europe and Asia Pacific being slightly underweight relative to the benchmark.

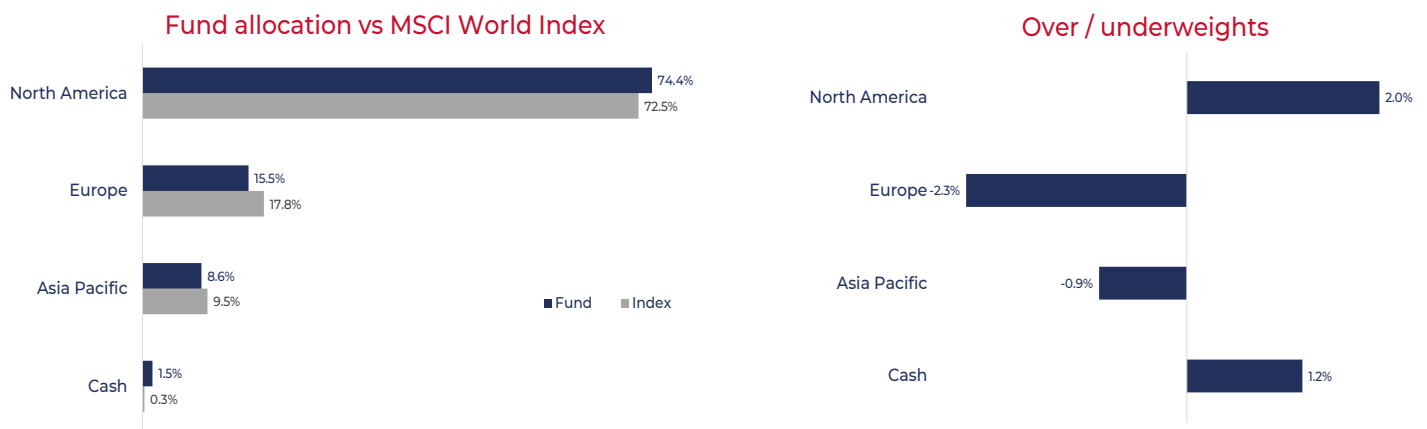


Figure 5: Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.22)

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022



On a sector level, the fund continues to have a large overweight to IT (26.6%), while the fund’s 0% exposure to Real Estate, Energy, Materials, Consumer Staples, and Utilities leaves these areas underweight relative to the benchmark.

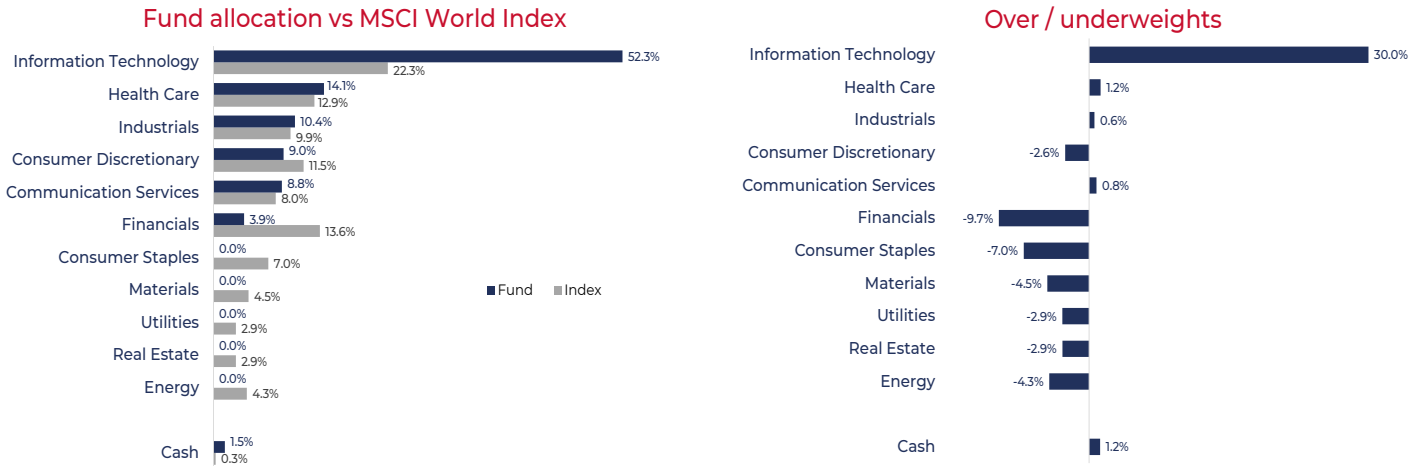


Figure 6: Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.22)

Key fund metrics today

Innovation: We seek companies that are exposed to secular growth themes, which should therefore be more insulated to cyclical cycles. We have thus far seen good evidence of this, such as for semiconductor companies as demand for chips enabling technologies from cloud computing to video streaming continue to increase in response to more consumers working from home.

Quality: We only invest in companies with good (and ideally growing) returns on capital and strong balance sheets. In the recent sell off a clear distinction was seen between businesses with strong vs weak balance sheets – companies which have taken on too much debt have been ‘propped up’ by low interest rates but a shock to revenues has the potential to alter this balance and the market quickly discounted this scenario.

Growth and valuation: We look to buy good growth companies at reasonable valuations and specifically we try to avoid paying too high a premium for expected future growth – as this is inherently less predictable. While valuations have optically become stretched, we believe companies that are able to continue growing, such as those exposed to our innovation themes, will continue to justify a greater premium.

Conviction: Although we run a concentrated portfolio of 30 stocks, we equally weight each position. This caps stock specific risk to approximately 3.3% thereby limiting the impact to the overall portfolio of a single company performing particularly poorly.

The table below illustrates these four key tenets of our approach in the portfolio today.

		Fund	MSCI World Index
Innovation	R&D / Sales	8.7%	6.5%
	CAPEX / Sales	6.5%	8.3%
Quality	Return-on-Capital	20.6%	7.2%
	Weighted average net debt / equity	13.6%	66.6%
Growth (& valuation)	Trailing 5-year sales growth (annualised)	13.7%	3.7%
	Estimated earnings growth (2022 vs 2021)	12.8%	7.8%
	PE (2021e)	21.1	17.9
Conviction	Number of stocks	30	1630
	Active share	81%	-

Figure 7: Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.22). Earnings growth is not a measure of the Fund's future performance.

We thank you for your continued support.

Portfolio Managers

Matthew Page, CFA

Dr Ian Mortimer, CFA

Summary performance

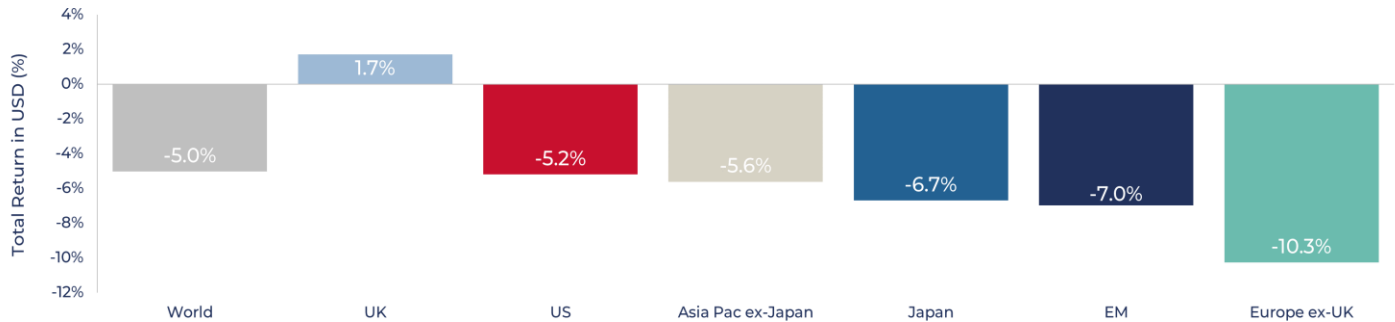
For the first quarter of 2022, the Guinness Atkinson Global Innovators Fund provided a total return of -11.83% (USD) against the MSCI World Index net total return of -5.15% (USD). Hence, the fund underperformed the benchmark by 6.68% (USD). On a 1-year rolling basis, the fund has produced a total return of 2.84% (USD) against the MSCI World 10.12% (USD).

Global equity markets fell during Q1, with broad declines across most major markets and sectors. Two key themes dominated investor sentiment over the period, as a marked shift towards more hawkish policy from global Central Banks lead to an increase in the discount rate, driving outperformance of value over growth. The outbreak of war in Europe in late February delivered markets an additional shock, exacerbating fears over supply chain disruption, the energy crises and further inflation.

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.

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022

MSCI World Regional Indices Performance (USD): Q1 2022



Source: Guinness Atkinson Asset Management, Bloomberg

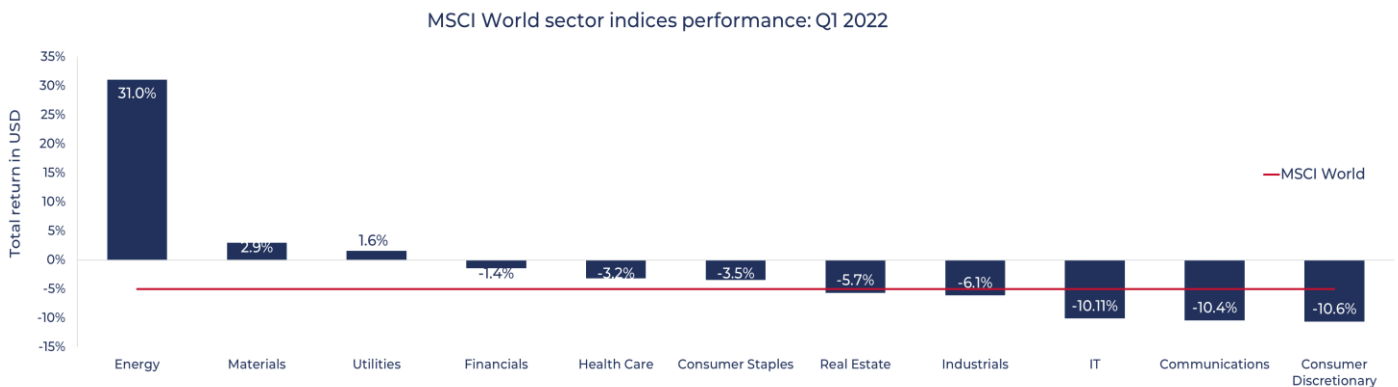
The MSCI World Index fell -5% (USD) over the period. While each major market was subject to these two key themes, regional dynamics caused significant differentials in performance. The UK was the sole positively performing region during the quarter, the MSCI UK outperforming the MSCI World by +6.7% (USD), as the region’s exposure to more defensive sectors such as consumer staples, and value orientated sectors such as financials offered a relatively more attractive market to shield from macro concerns. The tech-heavy U.S. market closed out their first quarterly loss since Q1 2020, as inflationary pressures and interest rate expectations drove a rotation away from tech. Europe understandably suffered more than any other, as proximity with Russia and close economic ties threatened supply chains, energy importation and business revenues within the region, exacerbating existing inflationary pressures. While these pressures also impacted Asian markets, further coronavirus outbreaks in Shenzhen and Shanghai, China, led to subsequent lockdowns and shutdowns of manufacturing facilities, placing further pressure on regional equities.

It was not until the end of November last year that the Fed “retired” the word transitory from describing inflation. Yet at the turn of the year, the tone became markedly more hawkish, as US Fed Chair Jay Powell failed to rule out potential rate hikes at every subsequent FOMC meeting from March until the end of 2022. In fact, the latest dot-plot following the FOMC meeting suggested officials expect to lift the federal funds rate to 1.9% by year-end, translating to a total of seven quarter-point increases over 2022. As of the end of March, the market was pricing in between 8 and 9. This is in stark contrast to the market’s position in June last year, where consensus estimated no interest rate rises in the US during 2022, and just one by the end of 2023. This rapid change in expectations has acted as a significant headwind to equities, and growth stocks in particular, causing modest declines over January and February. Following the Bank of England initiating a second rate hike in January, the Fed proceeded with their first 25bps hike, as expected, in March. The European Central Bank, who have been significantly more doveish in policy, indicated for the first time in February that rate hikes may no longer be completely out of the question, bringing rhetoric more in-line with market expectations. The ECB also confirmed a faster pace of reductions in asset purchases.

In mid-February, the market had been pricing in a 50bps hike by the Fed, but as tensions in Ukraine escalated into a Russian invasion, concerns over economic implications tamed expectations. Western companies scrambled to disentangle their business exposure from Russia, with firms such as Microsoft and Apple pausing sales in the region, and Google and Meta suspending advertising. Within the fund, we do not own any Russian or Ukrainian companies, nor do we own any companies domiciled in Eastern Europe. We also do not own any companies which generate a material portion of revenue from these countries. The Fund’s holdings have therefore, so far this year, been relatively protected against some of the intense drawdowns seen elsewhere in the market. That being said, that did not prevent stocks from being caught up in the volatility that followed.

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022

The Energy sector vastly outperformed all others during the quarter, with the MSCI Energy Index up +31% over Q1. Russia is the largest exporter of oil and gas to the European Union, and the regions reliance on this energy resulted in sanctions being relatively limited. Germany suspended its approval of the Nord Stream 2 pipeline and the US implemented a ban on oil imports. Concerns over the security of supply lead to a spike in oil and gas prices, with Brent oil and European gas prices ending the quarter up 33% and 55% since the beginning of Q1. Materials, Utilities, Financials, and Consumer Staples also outperformed the broader market, driven by a combination of value rotation, defensive properties and a rising interest rate environment. IT and Consumer Discretionary were part of the bottom performers, with rising interest rates and dented consumer sentiment causing declines in excess of -10% (USD).



Source: Guinness Atkinson Asset Management, Bloomberg

During the quarter, relative portfolio performance can be attributed to the following:

- The relative outperformance of value was a headwind for the Fund. Rising interest rates and the transition to defensive sectors, which are typically value orientated, resulted in a sell-off in stocks with growth attributes, such as those typically found in the Fund.
- The firm’s high exposure to Information Technology, and in particular semiconductor names, was a core driver behind relative underperformance.
- Also from an allocation perspective, the firm has no exposure to energy, consumer staples, utilities and materials, and we are holders of just one financial stock. These sectors all featured in the top 6 performers, a result of their value and/or defensive properties. This provided a further negative allocation affect to the fund.
- While health-care was just the fifth top performing sector during the quarter (MSCI World Health Care Index -3.2%), the Fund’s top two performers for the period were both health-care stocks: Bristol-Myers



Source: Guinness Atkinson Asset Management, Bloomberg

Guinness Atkinson
Global Innovators Fund
 Managers Update – Q1 2022



Squibb (+19.0% USD) and Medtronic (+7.9%) were both positive drivers from a stock selection perspective.

as of 03.31.2022 (in USD)	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class¹	2.84%	19.23%	15.44%	14.74%
Global Innovators, Institutional Class²	3.10%	19.53%	15.73%	14.92%
MSCI World Index NR	10.12%	14.93%	12.42%	10.87%

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%

² Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 0.99% (net); 1.07% (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, 2025. 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.

Guinness Atkinson Global Innovators Fund Managers Update – Q1 2022



Current and future portfolio holdings are subject to risk.

Top 10 holdings for Global Innovators Fund, as of 03/31/2022:

1.	Apple Inc	4.29%
2.	Bristol-Myers Squibb Co	4.26%
3.	Intercontinental Exchange Inc	3.96%
4.	Microsoft Corp	3.80%
5.	KLA-Tencor Corp	3.68%
6.	Roper Technologies Inc	3.64%
7.	Thermo Fisher Scientific Inc	3.58%
8.	Alphabet Inc - A Shares	3.57%
9.	Mastercard Inc	3.55%
10.	Cisco Systems Inc	3.51%

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.

The MSCI World Information Technology Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large and mid-cap equities across 23 developed markets, all classified within the Information Technology sector.

The MSCI World Health Care Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large and mid-cap equities across 23 developed markets, all classified within the Health Care sector.

Goldman Sachs Non-Profitable Technology Index consists of non-profitable U.S. listed companies in innovative industries. Tech is defined quite broadly to include new economy companies across GICS industry groupings. 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 relationship between percentage changes and basis points can be summarized as follows: 1% change = 100 basis points and 0.01% = 1 basis point.

The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

In the Federal Reserve, the Federal Open Market Committee is responsible for open market operations.

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

Guinness Atkinson
Global Innovators Fund
Managers Update – Q1 2022



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 relationship between percentage changes and basis points can be summarized as follows: 1% change = 100 basis points and 0.01% = 1 basis point.

Total Payment Volume means the total dollar (or other currency) amount of the transactions from, to or through any service, offering, system or platform of Provider during any applicable period, expressed in the currency of the transaction.

Capital expenditures (CapEx) are funds used by a company to acquire, upgrade, and maintain physical assets such as property, technology, or equipment. CapEx is often used to undertake new projects or investments by a company.

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographic areas.

Price-Earnings (P/E) ratio is a valuation ratio of a company's current share price compared to its per-share earnings. Forward earnings differ from trailing earnings, which is the figure quoted more often, as they are a projection and not a fact.

Active share is a measure of the difference between a portfolio's holdings and its benchmark index.

One cannot invest directly in an index.

Distributed by Foreside Fund Services, LLC