

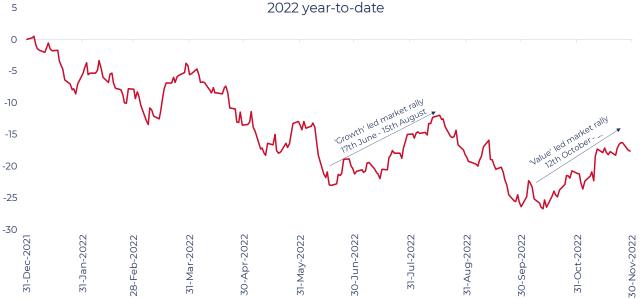
Managers Update – December 2022

November in review:

Despite a broadly weak environment for equities over 2022, so far the fourth quarter has seen strong performance. This is not the first rally global equity markets have seen over 2022, however. Around mid-June, markets began anticipating a lower 'peak' policy rate and earlier rate cuts, following dovish commentary from Federal Reserve Chair Jerome Powell. This led equity markets, and growth stocks in particular, higher. However, concerns over a dislocation between share price performance and fundamental outlook led many to muse of a 'bear market rally'. By mid-August, these fears were all but confirmed, following a broad sell-off that ensued until mid-October.

MSCI World Equity Performance

(Indexed to December 31, 2021) 2022 year-to-date



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

The rally seen between mid-June and mid-August was very different to the rally we are seeing now. Firstly, the strength in equities seen since mid-October has been 'value' led, rather than 'growth' led.

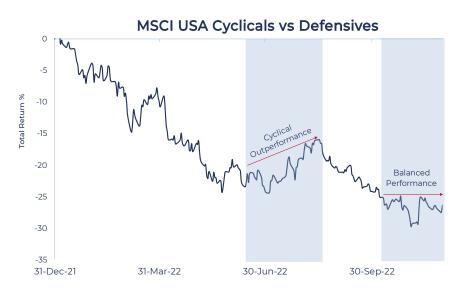


MSCI World Growth vs MSCI World Value



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

Rather than strength in 'cyclical' companies over 'defensive' companies, while very volatile, the picture since mid-October has been rather more balanced.

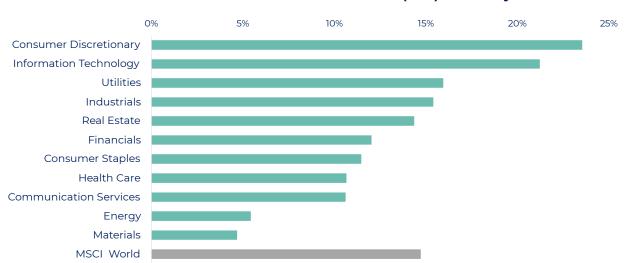


Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

We can see something similar when looking from a sector perspective. In the 'growth' led rally seen in the summer (June 17th to August 15th), the highly valued, cyclical sectors of Consumer Discretionary and Information Technology outperformed all else. Together, these two sectors account for over 30% of the MSCI World Index. With the exception of Utilities (3% of the index), other 'defensive' sectors such as Healthcare and Consumer Staples underperformed the MSCI World, alongside the commodity-based sectors of Energy and Materials.



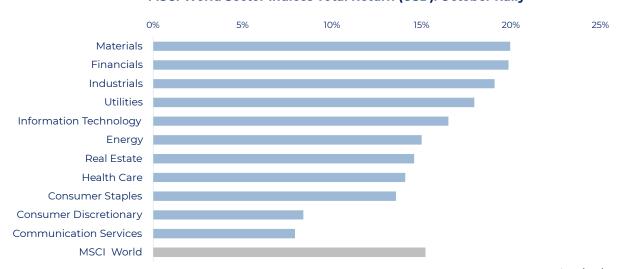
MSCI World Sector Indices Total Return (USD): June Rally



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

The rally since October has looked quite different. The picture is certainly less stark than what was seen in June. However, there is a small divide between growth and value. Information Technology was the only clear outperforming 'growth' sector, and this was only due to strong performance on the final day of the month, when Fed Chair Powell gave his strongest indication yet of a slower pace of rate hikes. Up until November 29th, Information Technology, Consumer Discretionary and Communication Services were the bottom three performing sectors over the rally. Even within 'cyclical' stocks there is a divide between growth and value, with the more value orientated materials, financials and industrials (to an extent) sectors outperforming, and the more 'growth' tilted sectors of Communication Services and Consumer Discretionary significantly underperforming. Defensive sectors such as Utilities and Consumer Staples kept up broadly in line with the MSCI World.

MSCI World Sector Indices Total Return (USD): October Rally

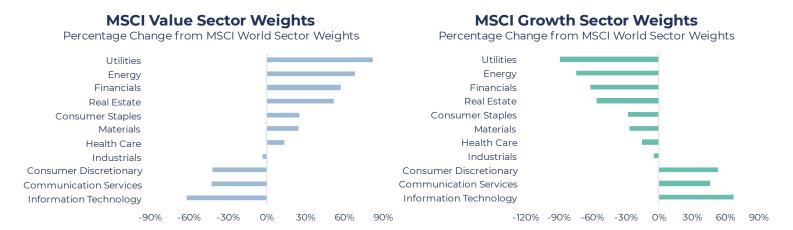


Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022



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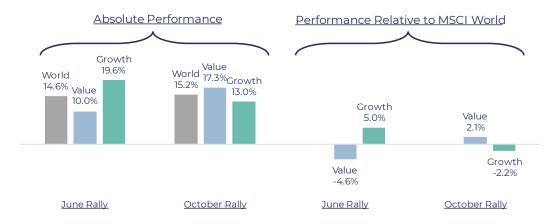
For reference, the weights of sectors within the value and growth indices as of October 31st can be seen in the charts below, relative to the broad MSCI World Index.



Source: Guinness Atkinson Asset Management, MSCI, as of 11/30/2022

However, even with this 'value' outperformance, the performance differential between growth and value was less stark than it was during the June rally. Both rallies (so far) have seen the MSCI World rise approximately 15%. In the 'growth' led rally of June, the MSCI World Growth Index outperformed the MSCI World Value Index by 9.6%. In the 'value' led rally of October, value outperformed growth by just 4.3%.

Absolute Performance and Relative Performance of MSCI World Indices



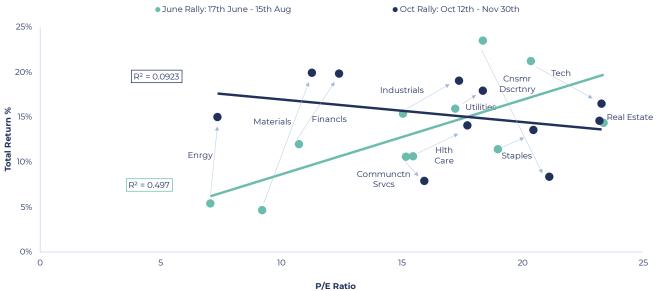
Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

This idea can also be seen by comparing sector performance against valuation. The 'growth' led rally in June had a strong correlation between performance and P/E ratio (1 year forward) and a steeper, positive gradient. The recent 'value' led rally has a negative gradient (as expected), but this gradient has a lower magnitude and a lower



correlation. This suggests that factor rotation is having less of an influence on this rally, and individual company performance are having more of an influence.

Performance vs Valuation of MSCI Sectors Valuation point at start date of rally

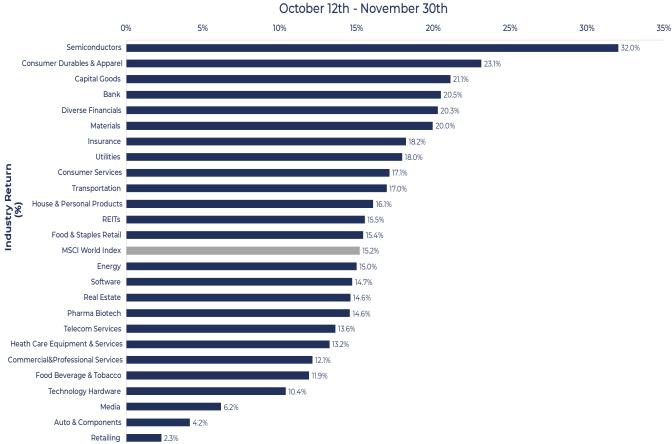


Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

Taking an industry view helps affirm this point, with significant divergence in performance across sectors – regardless of their cyclical/defensive and value/growth orientation. For example, taking industries within Information Technology, the Fund's largest overweight sector, Technology Hardware is the fourth worst performing over the recent rally (+10.4%), Software (+14.7%) has performed relatively in-line with the MSCI World (+15.2%), and Semiconductors (+32.0%) outperformed.



MSCI World Industry Indices Performance



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

Semiconductors are the Fund's largest overweight position. We have long held a view that Semiconductor companies will benefit from the long term secular innovation themes that we have identified within the Fund, such as Automation and Cloud Computing, and will help these stocks grow over the long term, and potentially through different market environments. With the exception of TSMC, which underperformed the MSCI Semiconductor Index by 2.6%, all other semiconductor holdings held in the Fund outperformed the industry benchmark by at least 10%.



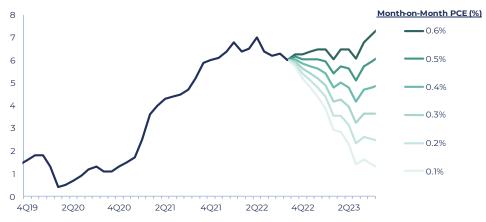
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Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

The current market rally was sparked by the onset of Q3 earnings season, where results were surprisingly resilient. Of the companies that reported Q3 earnings over the period, 70% surprised to the upside for EPS, with average growth of +2.4% year-on-year. While these figures may be below long-run average numbers, prior concerns of an economic slowdown heavily impacting companies failed to materialize, driving equities higher. Markets were buoyed further with strong economic data coming out of the US, with GDP prints of +2.6% (annualized), ending the two quarter streak of negative growth. Positive momentum continued into November, when the US announced softer-than-expected inflation numbers. Headline inflation came in at 7.7%, 0.3% below economist expectations, and core inflation rose +0.3% month-on-month, significantly below the +0.6% figure from the month prior. Personal Consumption Expenditure, the Fed's preferred measure of inflation, came in at +0.3% (month-on-month) for the third month running. The chart below shows how rates of month-on-month Personal Core Expenditure (PCE) of less than 0.5% offers a path towards lower levels of PCE inflation (year-on-year) over the next 12 months.

Personal Consumption Expenditure (year on year) with Projections (month on month)

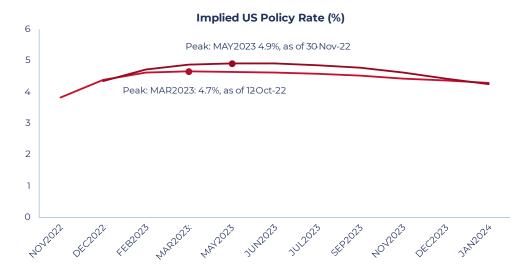


Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022



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Over the majority of 2022, any indication that 'peak' inflation had been reached tended to drive outperformance in growth. However, in the most recent market rally, strength in value has remained. The difference this time round appears to be in interest rate expectations. Expectations of easing inflation has tended to build expectations of a more dovish Federal Reserve, in turn driving a lower, and earlier, market-implied peak-policy rate. This is positive for growth stocks in particular, being more 'high-duration' in nature. Yet markets had largely priced in a slower pace of rate hikes by the beginning of the rally already. In fact, the small change that did occur indicated a slightly higher, and slightly later, peak rate — a headwind for growth. Therefore, growth did not receive the usual *relative* tailwind that it had done in other periods where lower inflation data has surprised the market.



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

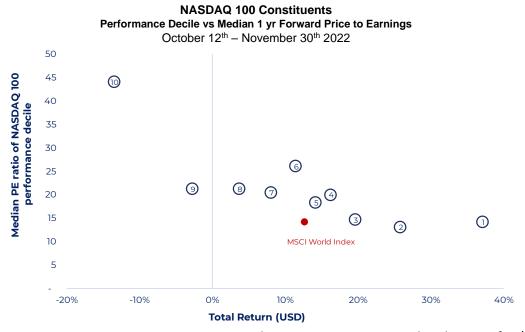
Growth was also unable to benefit from any outperformance in 'Big Tech', as it is had done in other periods of equity strength this year. In fact, 'Big Tech' was a surprising pocket of weakness during the earnings season, as was discussed in detail in the prior monthly commentary. With headwinds to cloud computing and advertising, Amazon, Microsoft, Alphabet and Meta all largely offered weaker than expected results and/or guidance, and were therefore unable to drag the growth index higher.

While we have largely discussed the current market rally as 'value' led, it is important to emphasise that the dispersion between value and growth performance has been small. Considering the mixed performance of cyclical and defensive industries, markets appear to have been focusing more on company and sector fundamentals and outlooks, rather than taking a view on factor performance.

Over the current equity rally, there has also been a significant divergence in performance between more speculative stocks with more extreme valuations, and 'quality growth' stocks, where current valuations place lower weight on future growth prospects. The bottom performing decile (labeled 10 in the chart below) in the Nasdaq 100 (regarded as a more growth/tech focused index) over the period in question was the highest valued (on a median basis) by far, on a 1 year forward P/E basis. This reflects more speculative stocks, with more extreme valuations, underperforming. On the other hand, the three best performing deciles (labeled 1, 2 and 3) were some of the cheapest on a forward P/E basis.

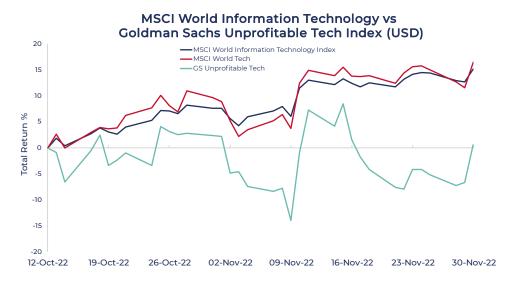


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Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

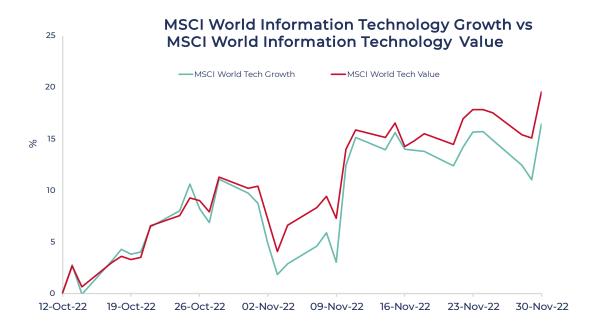
The Goldman Sachs Unprofitable Tech Index tells a similar story. The index, which is made up of a basket of unprofitable tech companies, significantly underperformed the broader MSCI Technology Index over the same period. These companies were typically the more speculative stocks with "frothier" valuations, with most cash flows forecast way out into the future. In times of an uncertain macro-economic outlook, particularly one with a potential recession on the horizon, investors prefer the sanctuary of quality stocks with good balance sheets, stable earnings and strong fundamentals – such as those found within the Fund. While the MSCI World Information Technology Index was able to perform relatively in-line with the broader MSCI World over the period, the Goldman Sachs Unprofitable Index significantly underperformed.



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022



Being conscious of valuation has been a tailwind for the Fund. As seen below in MSCI World Information Technology Growth Index vs MSCI World Information Technology Value Index, technology stocks with a value tilt outperformed those with a higher 'growth' tilt. With a weak economic outlook over the medium-term, investors have sought higher quality, safe havens with less potential for downside valuation risk.



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

In general, stocks have been led higher by an improved outlook on inflation, and better than expected company earnings. But recessionary concerns remain and have driven a rotation towards stocks which have actual, positive earnings and can rely on the strength of their balance sheets in more challenging times. The Fund's focus on these types of quality businesses has shown its strength in avoiding the highly valued non-profitable tech companies that have swung between large rises and falls, and underperformed significantly in the most recent rally. While our high exposure to the IT sector means we are not immune from the potential impact of further rotations away from growth, our investment philosophy has always been to seek out companies delivering profitable growth. In the Fund we continue to apply a 'valuation discipline' to stock selection and monitor carefully the valuation we are ascribing to future growth against that of the current business. We believe the secular growth trends and innovation themes that our companies are exposed to are likely to be able to successfully navigate volatile and uncertain macro-environments over the longer term.



Stock Specific News













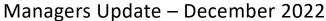
Semiconductor holdings - Infineon (+36.1% USD), TSMC (+34.8%), NVIDIA (+25.4%), KLA (24.7%), Applied Materials (24.4%) & Lam Research (+16.7%)

A pandemic-induced boom in demand paired with heavily disrupted supply chains led to strong semiconductor industry performance in 2020, as demand outstripped supply. However, a retrenchment in consumer demand for displays (PCs and Smartphones), fears of an economic slowdown spurring an inventory correction among manufacturers and improving supply chain conditions leading to a 'glut' in some end-markets, have all contributed to a sell-off in the semiconductor industry over 2022. More recently, the US has been implementing unilateral export controls on the Chinese chip industry, slowing progress in China's ability to obtain or manufacture advanced chips, and denting sentiment further for firms with exposure to the region. Overall, the uncertainty over the shortterm outlook in the chip industry has led the MSCI World Semiconductor index down 26.6% (USD) year-to-date (as of November 30th 2022), underperforming the MSCI World by 15.4%.

Since mid-October, however, there has been a strong rebound in the sector. Since the October 14th, when the MSCI World Semiconductor Index touched a 2 year low, the Index is up +33% (USD). Over the month of November, each of the Fund's Semiconductor holdings returned double digit figures, with five out of the six outperforming the MSCI World Semiconductor Index (+18.8% USD). Sentiment was buoyed by the news that Warren Buffet's Berkshire Hathaway had taken a \$4.1bn dollar stake in TSMC, and that US President Biden and Chinese leader Xi Jinping had a first in-person meeting, a potential first step for a stabilization in relations. However, it was company earnings that was the core driver, with quarterly results largely above expectations. Management teams often noted of the short-term difficulties facing firms going in to 2023, markets largely interpreted this as the 'bottom' of the cycle being in sight. Many companies also offered guidance for when they believed the supply 'glut' would clear, with bellwether TSMC expecting the inventory correction to take only a few quarters. While TSMC also guided for an expected slowdown in the semiconductor market over 2023, they believed they could continue to grow over the next year due to market leadership and technological advantages. The Fund's Semiconductor equipment companies, Lam Research, Applied Materials and KLA, all delivered significant beats to the top and bottom line, although forewarned of a difficult spending environment going into 2023.

All in all, we continue to be bullish on the sector over the long-term. While we recognize the challenges faced within the industry including Sino-US tensions, cuts to CapEx, and supply-demand imbalance, our view is that these headwinds are largely temporary, and that the long-term secular trends that semiconductor designers, manufacturers and equipment-makers are exposed to will prevail to drive long term growth in the industry. These long-term secular trends include, but are not limited to, increasing and widespread demand across multiple end market applications such as cloud and internet of things, as well as increasing semiconductor content per device.









Zoom Video Communications (-9.6% USD)

Zoom Video Communications ended the month as the Fund's bottom performer, driven by a negative reaction to the firms earnings announcement. While headline figures matched expectations (revenue +0.4% to consensus, adjusted EPS +28.3%), we found the negative market reaction to the results to be overdone. In our view, the most important areas to the firm continued to show broad based strength (enterprise, upmarket, nascent product lines). The firm did have to lower their revenue guide for FY23 by \$15mn (less than half a percent to total sales), but \$14mn was a result of foreign exchange (FX) movements. On the other hand, the firm guided to a 100bp increase in operating margins, accounting for an incremental \$50mn to the bottom line. Despite this, the stock fell 7% in after-hours trading. As has been the case throughout 2022, performance in 'Online' (which is effectively the firm's retail segment) is continuing to dampen sentiment in the stock, despite continued strong performance in the Enterprise segment - the most important growth driver, and a higher quality revenue stream, in our view.

The Enterprise segment is a higher quality revenue stream due to pricing power, multi-contract solutions, crossselling opportunity, longer term contracts, and stickiness (stemming from organizational inertia). Over the quarter, Enterprise exposure increased to 56% of sales, up from 49% last year, with strong top-line growth of +20% yearon-year, holding up better than expectations. It was positive to see the firm having strong success in the upmarket (a subsegment of enterprise where the firm is currently underpenetrated), with revenues from customers contributing more than \$100,000 (trailing 12 months) growing by +31% and accounting for 27% of sales. In addition, there was a high level of growth in the amount enterprise customers were spending with the firm, with a net dollar expansion rate for enterprise customers of 117%, although again, this was down sequentially. Online fell 10% in 3Q, (-8% in 2Q) with lower purchase intent weighing on customer conversions. This is despite the firm having success in reducing churn rates to pre-pandemic levels of ~3%. Management indicated Online Revenue could stabilize in F2Q4 (three quarters time), with initiatives on local pricing and packaging, and time limits, encouraging higher free-to-paid conversions. In our view, the market is placing too much emphasis on the online segment, which is facing headwinds as we exit the pandemic, and not enough on the firm's other growth opportunities and higher quality segments. Overall, the firm's nascent product lines and growing total addressable market offer strong growth potential, and paired with the firm's brand-equity, solid balance sheet and focused strategy, this give us confidence in our overall investment thesis of the firm.

Portfolio Managers

Matthew Page, CFA

Dr Ian Mortimer, CFA



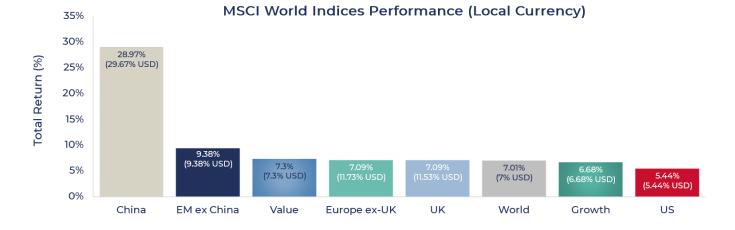
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Summary performance

In November, the Guinness Atkinson Global Innovators Fund provided a total return of 9.73% (USD) against the MSCI World Index net total return of 6.95% (USD). Hence the fund underperformed the benchmark by 2.78% (USD).

Broad based gains across global equity markets continued into November, the first monthly back-to-back gains of 2022. Yet, while Developed Markets led equities higher in October, it was Emerging Markets that outperformed in November. China was the stand-out performer, with the MSCI China Index delivering +29% in local currency terms. Growing expectations that Beijing would push ahead with re-opening plans and shift away from tough 'zero-COVID' policies, despite record COVID-19 infections and rhetoric supporting these policies, has helped spark a return of positive sentiment towards the region.

The US market also ended in positive territory, yet underperformed all other major regions. Hopes that inflation had peaked and the Fed would therefore 'ease off the pedal' in terms of rate hikes supported equities, yet weakness in three of the US's four largest sectors, Information Technology, Health Care and Consumer Discretionary, created a drag on the region. Early in the month, markets had expected Republicans to win both the House and the Senate in the US midterm elections. This initially buoyed markets, with a divided government reducing the likelihood of new fiscal measures and regulation. However, the proclaimed 'Red Wave' did not emerge to the extent that markets had pre-empted and with the Democrats retaining the Senate, created an additional headwind for US equities.



Source: Guinness Atkinson Asset Management, Bloomberg, as of 11/30/2022

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.qafunds.com/ourfunds/global-innovators-fund/#fund performance or call (800) 915-6566.



With the Federal Reserve in the midst of the fastest hiking cycle on record, markets have become increasingly sensitive to any macro-economic data that may hint at the future path of interest rates. Typically over 2022, softer-than-expected inflationary data has been a tailwind for growth stocks in particular. However, despite headline CPI coming in 0.3% below expectations in November this did not lead to any significant change in the market implied expectation of 'peak-rates' and the market continued to price in a 50bps hike from the Federal Reserve in December. Value continued to outperform as it has done since mid-August – but only just. Relative performance of cyclicals and defensives was volatile, but ended relatively balanced over the month.

Over the month of November, Fund performance can be attributed to the following:

- The Fund experienced a small negative allocation impact, as 'Value' marginally outperformed 'Growth'. The Fund's largest overweight position, Information Technology, slightly under-performed the MSCI World. The Fund also has a zero allocation to Materials, Utilities, Real-Estate and Consumer Staples, as well as an under-weight position to Financials, all of which outperformed the benchmark over the month of November.
- Strong stock selection more than offset any negative headwind from allocation, however. 14 of the
 Fund's 30 holdings registered double digit returns (in USD terms) in November. The Fund's top
 performers included Infineon Technologies (+30.8% USD), TSMC (+28.9%), Anta Sports (+27.7%) and
 Meta (+28.8%).
- Good stock selection within Information Technology was a core driver of Fund performance. Within this sector the Fund's large overweight position to Semiconductors acted as a significant tailwind. Five out of the Fund's six semiconductor holdings outperformed the MSCI World Semiconductor Index (+18.8% USD), and all six outperformed the MSCI World, in USD terms.



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as of 11.30.2022 (in USD)	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class ¹	-22.43%	8.45%	7.29%	12.98%
Global Innovators, Institutional Class ²	-22.24%	8.72%	7.56%	13.17%
MSCI World Index NR	-10.86%	7.51%	7.35%	9.53%

as of 09.30.2022 (in USD)	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class ¹	-29.80%	5.88%	5.30%	11.41%
Global Innovators, Institutional Class ²	-29.63%	6.14%	5.56%	11.60%
MSCI World Index NR	-19.63%	4.55%	5.30%	8.10%

All returns after 1 year annualized.

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*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.

¹ Investor class (IWIRX) Inception 12.15.1998 Expense ratio* 1.24% (net); 1.17% (gross)

² Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 0.99%

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).



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

Current and future portfolio holdings are subject to risk.

Top 10 holdings for Global Innovators Fund, as of 11/30/2022:

Amphenol Corp	4.36%
Mastercard Inc	4.15%
Thermo Fisher Scientific Inc	3.98%
Roper Technologies Inc	3.97%
Visa Inc	3.93%
ABB Ltd	3.83%
Intercontinental Exchange Inc	3.80%
KLA-Tencor Corp	3.69%
Microsoft Corp	3.69%
Danaher Corp	3.68%
	Mastercard Inc Thermo Fisher Scientific Inc Roper Technologies Inc Visa Inc ABB Ltd Intercontinental Exchange Inc KLA-Tencor Corp

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.

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.

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.

The MSCI USA Index is designed to measure the performance of the large and mid cap segments of the US market. With 622 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

R-squared (R²) is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable or variables in a model. Whereas correlation explains the strength of the relationship between an independent and dependent variable, R-squared explains to what extent the variance of one variable explains the variance of the second variable.

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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.

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 Nasdaq-100 (NDX) is a large-cap growth index. It includes 100 of the largest domestic and international non-financial companies listed on the Nasdaq Stock Market based on market capitalization.

Duration: The duration number is a complicated calculation involving present value, yield, coupon, final maturity and call features. Fortunately for investors, this indicator is a standard data point provided in the presentation of comprehensive bond and bond mutual fund information. The bigger the duration number, provided in years, the greater the interest-rate risk or reward for bond prices. It can also be used to describe equities in a similar manner: a higher duration suggests most cash flows are expected far into the future, with a lower duration suggesting more stable cash flows over the short and long term.

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.

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.

Forward price-to-earnings (forward P/E) is a version of the ratio of <u>price-to-earnings</u> (P/E) that use forecasted earnings for the P/E calculation. While the earnings used in this formula are just an estimate and not as reliable as current or historical earnings data, there are still benefits to estimated P/E analysis

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

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 S&P 500 Index features 500 leading U.S. publicly traded companies, with a primary emphasis on market capitalization.

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 MSCI World Semiconductors and Semiconductor Equipment Index is composed of large and mid-cap stocks across 23 Developed Markets (DM) countries*. All securities in the index are classified in the Semiconductors and Semiconductor Equipment Industry Group (within the Information Technology sector)



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.

One cannot invest directly in an index.

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