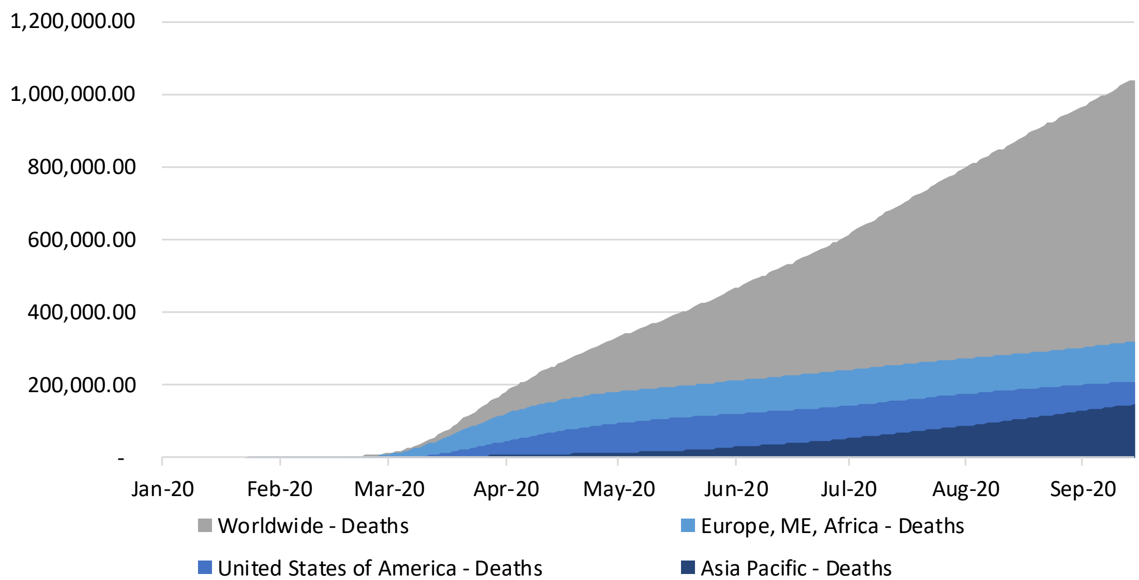
Guinness Atkinson
Global Innovators Fund
Managers Update – October 2020

Quarter in review:

Moving into Q3, the US was battling its second wave of infections – bigger than its initial peak experienced in April. However, since then the rate of infection has been slowing for the region but that was not enough to stop the President from catching COVID-19. Although seemingly mild in symptoms, the news brought the President's health record into light and could have implications for the upcoming November elections. Elsewhere, regional increases in cases as restrictions began easing gave investors pause, particularly in European countries France and Spain. This all resulted in cumulative COVID-19 deaths surpassing 1,000,000 for the first time in September. However, there were some bright spots with vaccine trials, principally the Oxford trial which entered phase III. While the road ahead remains uncertain, any further positivity around a vaccine, for which Goldman Sachs expects a late 2020 approval as the most likely scenario, will be a boost to growth going into 2021, especially for some of those industries hardest hit including Consumer Discretionary and Industrials.

Cumulative COVID-19 Deaths



Source: Bloomberg. Data as of September 30, 2020.

US Fed policy change:

During August, the US Fed announced a change in how the FOMC looks to adjust interest rates. Specifically, the FOMC now seeks to achieve an *average* inflation of 2% over time (although no time period was specified). This is a divergence from the previous method of pre-emptively adjusting rates and may allow inflation to run over 2% following a period of sub-2% inflation. All this acted as a further support for equity prices as markets noted interest rates may therefore likely be lower for longer. This had the knock-on effect of continuing to drive the US dollar weaker which should benefit US sectors such as IT and Energy which derive higher proportions of revenue from abroad. However, a weaker US dollar is a worry for the European Central Bank (ECB), as a relatively stronger Euro will weigh on exports, drag down asset prices and force the ECB's hand into further stimulus. This, in addition to regional rises in COVID-19 cases from EU countries including Spain and France, led to a relatively weak performance from European stocks during that August, while US stocks benefitted.

US-China relations:

Tension between the world's two largest economies continued over the quarter as President Trump sought to ban Chinese-owned social media apps TikTok and WeChat, while China ordered the closure of the United States' consulate in Chengdu in retaliation for the closure of a Chinese consulate in Houston over spying concerns. Further sanctions were also placed on Chinese company Huawei. The new set of sanctions require companies to obtain a license before selling any microchip to Huawei made using US equipment or software. This is an escalation from previous sanctions that allowed the sale of chips to the business as long as they were not designed by the Chinese company or its subsidiaries. The news, cited as a "death sentence" for the Chinese business by some analysts, was taken as a negative for the fund's semiconductor equipment manufacturers in general as analysts looked to a reduction in demand for US equipment from the Chinese market. Weakness for the semiconductor holdings was further compounded after the US placed sanctions on China's leading semiconductor foundry, Semiconductor Manufacturing International Corporation (SMIC), requiring companies to acquire a license before exporting software or equipment to the business. This left our three semiconductor manufacturing companies, Lam Research (up 2.9% in USD over Q3), KLA Corp (flat over Q3) and Applied Materials (down 1.3%), as three of the worst performing six companies within the fund over the quarter.

In order to continue monitoring our exposures, we look at each of our holding's revenue exposure to China over the last full fiscal year available (taking a conservative view if China is not broken out specifically – for example, using Asia Pacific as a proxy). This enables us to understand not only the fund's exposure overall to China but, perhaps more importantly in the current environment, the average US holding's exposure to China. Taking a closer look at the figure below, we find the average fund holding has a 23% exposure to China sales, while the average US holdings only has a 13% exposure, primarily from the semiconductor holdings which derive on average 28% of revenues from China. The overall fund average sales exposure (23%) is somewhat skewed by our domestic China holdings which have close to 100% of their revenue from China (Anta Sports, New Oriental Education, Tencent). If we remove these from the calculation, then the average decreases to 14%. While supply chains are more complex than these numbers suggest, this approximate "ceiling" exposure gives us comfort that the fund is not overly concentrated in products possibly caught up in US-China relations, while still giving the fund good exposure to the fast-growing region of China.

Fund Exposure to Chinese Sales

Average exposure to China	23%
Average exposure to China for US companies only	13%

Company	Country	Sector	Industry	China exposure	Actual/Estimate
Tencent Holdings Ltd	CHINA	Communication Services	Interactive Media & Services	96%	A
New Oriental Education & Techr	CHINA	Consumer Discretionary	Diversified Consumer Services	100%	A
ANTA Sports Products Ltd	CHINA	Consumer Discretionary	Textiles, Apparel & Luxury Goo	100%	A
Schneider Electric SE	FRANCE	Industrials	Electrical Equipment	14%	A
Infineon Technologies AG	GERMANY	Information Technology	Semiconductors & Semiconductor	34%	A
SAP SE	GERMANY	Information Technology	Software	11%	E
Medtronic PLC	IRELAND	Health Care	Health Care Equipment & Suppli	16%	E
Check Point Software Technolog	ISRAEL	Information Technology	Software	12%	E
Samsung Electronics Co Ltd	SOUTH KOREA	Information Technology	Technology Hardware, Storage &	17%	A
ABB Ltd	SWITZERLAND	Industrials	Electrical Equipment	32%	E
Alphabet Inc	UNITED STATES	Communication Services	Interactive Media & Services	17%	E
Facebook Inc	UNITED STATES	Communication Services	Interactive Media & Services	22%	A
Comcast Corp	UNITED STATES	Communication Services	Media	0%	A
Amazon.com Inc	UNITED STATES	Consumer Discretionary	Internet & Direct Marketing Re	0%	A
Intercontinental Exchange Inc	UNITED STATES	Financials	Capital Markets	0%	A
Danaher Corp	UNITED STATES	Health Care	Health Care Equipment & Suppli	13%	A
Thermo Fisher Scientific Inc	UNITED STATES	Health Care	Life Sciences Tools & Services	11%	A
Bristol Myers Squibb Co	UNITED STATES	Health Care	Pharmaceuticals	15%	E
Roper Technologies Inc	UNITED STATES	Industrials	Industrial Conglomerates	0%	A
Cisco Systems Inc	UNITED STATES	Information Technology	Communications Equipment	15%	E
Mastercard Inc	UNITED STATES	Information Technology	IT Services	0%	A
PayPal Holdings Inc	UNITED STATES	Information Technology	IT Services	0%	A
Visa Inc	UNITED STATES	Information Technology	IT Services	0%	A
Applied Materials Inc	UNITED STATES	Information Technology	Semiconductors & Semiconductor	29%	A
KLA Corp	UNITED STATES	Information Technology	Semiconductors & Semiconductor	25%	A
Lam Research Corp	UNITED STATES	Information Technology	Semiconductors & Semiconductor	31%	A
NVIDIA Corp	UNITED STATES	Information Technology	Semiconductors & Semiconductor	25%	A
Adobe Inc	UNITED STATES	Information Technology	Software	8%	E
Microsoft Corp	UNITED STATES	Information Technology	Software	24%	E
NIKE Inc	UNITED STATES	Information Technology	Textiles, Apparel & Luxury Goo	18%	A

Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020.

Further semiconductor news:

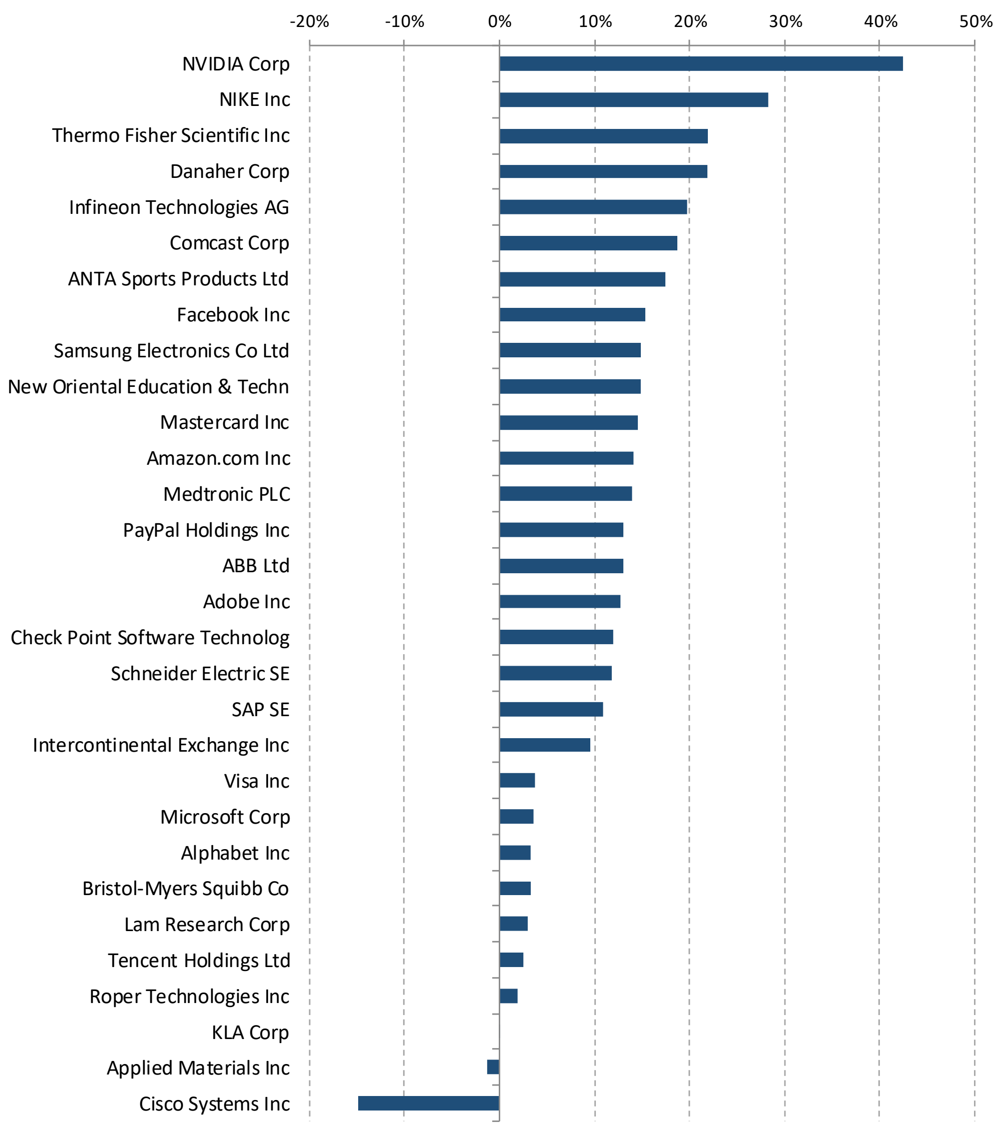
While the US sanctions on China's largest semiconductor foundry, SMIC, may accelerate the de-coupling of US and Chinese supply chains, it was not the only news out of the industry over the quarter. Firstly, Intel, the leading semiconductor foundry in the US which has lagged the global leader and Taiwanese peer, TSMC, for some time. With TSMC pushing ahead with fabricating 5nm chips, Intel instead announced a further year's delay in its next generation 7nm fabrication process. The news sent Intel's stock down some 16% on the day while TSMC was up 10%, further solidifying its market dominance (we do not own either Intel or TSMC in the fund). However, semiconductor equipment manufacturers Lam Research, Applied Materials and KLA Corp - owned in the fund - slipped on the day as investors digested the possibility of an exit from the foundry business for Intel.

Elsewhere in the industry, Nvidia, the global leader in graphic processing units (GPU) and a long term fund holding, announced the acquisition of ARM Holdings, a UK leader in central processing unit (CPU) designs, for a reported $40bn which could make it the largest ever deal for the industry. Nvidia had been one of the fund's best performing stocks prior to the quarter as COVID-19 lockdowns accelerated many of the company's end-market transformations including the shift to cloud computing (which use Nvidia's GPUs to accelerate processing). However, the ARM acquisition led the stock to rally further (it is now up 130% in USD for 2020) as investors processed Nvidia's ability to offer a full stack offering to data centers along with a more diversified revenue stream combining Nvidia's high-end GPU offering with CPUs where ARM has been taking market share in areas including mobile phones, laptops and servers.

Accelerating shift to renewable energy:

European holdings including industrials Infineon, Schneider Electric and ABB, got a boost this quarter as Chinese President Xi announced at a virtual UN meeting in September that China, the world's largest producer of greenhouse gases, planned to be carbon-neutral by 2060. The news echoes other major economies including the UK and EU which had previously set a similar goal by 2050 but puts pressure on US, now the largest emitter that does not have an emissions target. While the announcement was a surprise, it follows the trend of governments and their fiscal stimulus' aimed at renewable energy in response to COVID-19 including the EU's approval in July for the biggest green stimulus package to date pledging to pour more than 500bn euros into everything from renewable energy to electric vehicles. The topic is also at the heart of the upcoming US elections where Joe Biden plans to overhaul the country's energy system in favor of renewables. All this makes for an accelerating transformation which should stand to benefit our clean energy and sustainability holdings including Infineon, which produces power management semiconductors, primarily for the automotive industry, ABB which manufactures robotic arms and electric car charging infrastructure, and Schneider Electric which produces energy efficient automation and digitalization software.

Stock Performances over Q3 2020 (all in total return USD):



Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020. Total return in USD.

Nike, up 28.3% (in USD) over the quarter:

Nike continued to perform strongly, as it has done through this pandemic, reporting quarterly results in September that surpassed expectations with revenues down only 1% vs expectations of -14.5%. The company's focus on direct-to-consumer and digitalization continued to provide robust growth with digital revenues growing 83% year-on-year which equated to more than 30% of sales and well on the road to the company's target of 50%. The business continues to show excellence in execution in addition to long runways for growth in athleisure wear.

Cisco, down 14.9% (in USD) over the quarter:

Cisco, the world's largest hardware and software supplier within the networking sector as well as the leader in cyber security systems, reported results in August that were broadly in-line with expectations for the quarter, however, the company guided lower for next quarter. This was against the trend for most companies that are past the trough in revenues and are guiding for a recovery. The primary driver of the sluggish growth was the slow recovery in enterprise IT spending. However, there were some pockets of positivity with security revenue, for instance, rising 10% year-on-year led primarily by double-digit growth in cloud security systems. Additionally, the company has broadly surpassed its 2017 targets for the business with software contributing 29% of revenues (target 30%), software & services contributing 51% (target 50%) and subscriptions as a % of software making up 78% of revenues (target 66%). While the company is facing some near-term headwinds, we remain optimistic regarding its exposure to long-term transformations including data networking and cyber security as well its internal transformation to more subscription-based services.

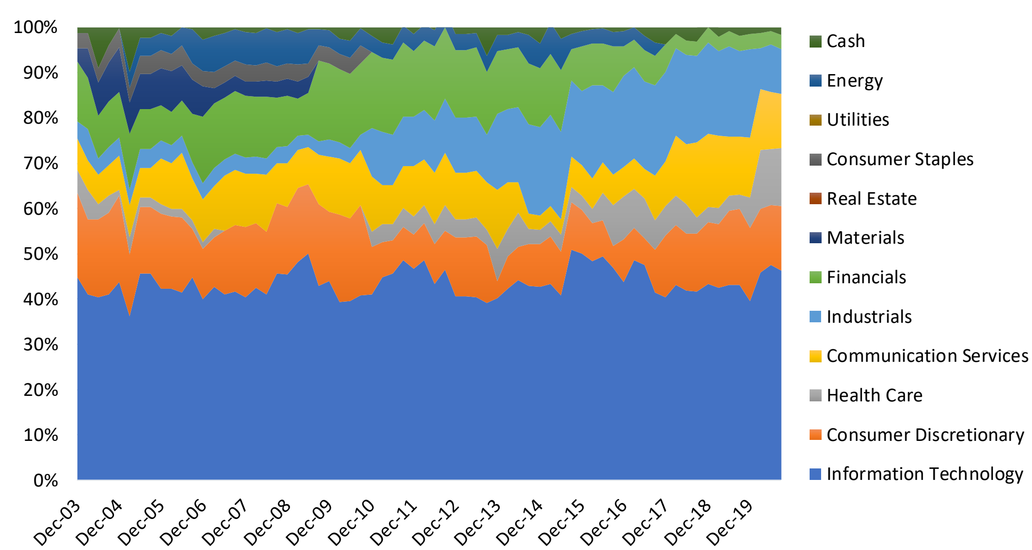
Changes to the portfolio:

We made no changes to the portfolio over Q3.

Portfolio characteristics

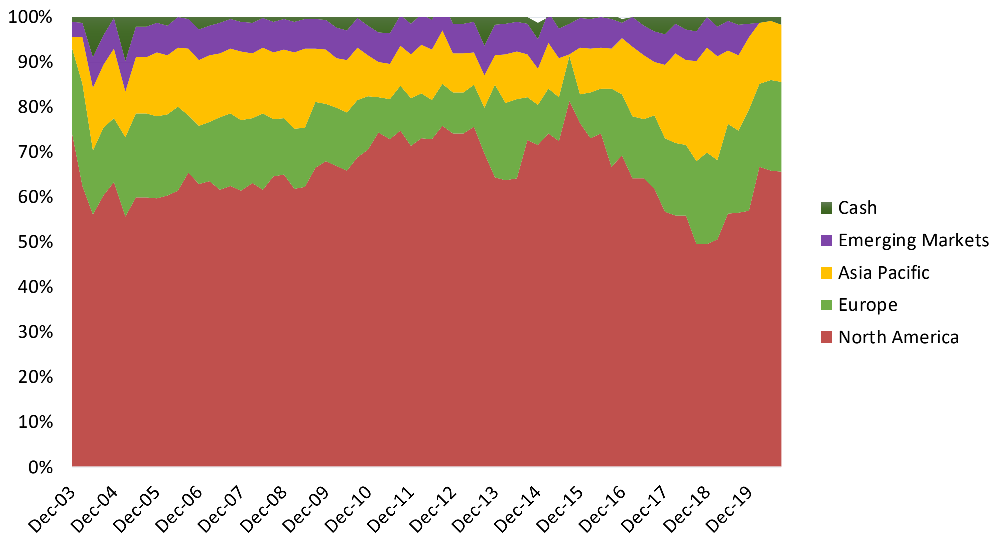
We continue to hold no exposure to Real Estate, Energy, Materials, Consumer Staples, and Utilities. Information Technology remains our largest exposure, split between the three sub-sectors of semiconductors; software and services; and technology hardware. On a regional basis, North America continues to be the largest exposure (66%), followed by Europe (20%) and Asia Pacific (13%).

Portfolio Sector Breakdown



Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020.

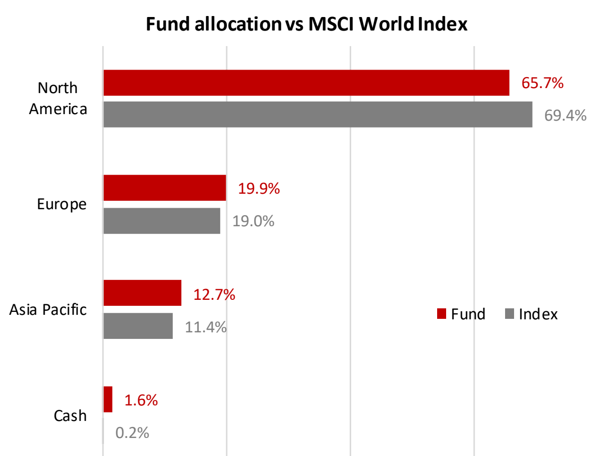
Portfolio Sector Breakdown

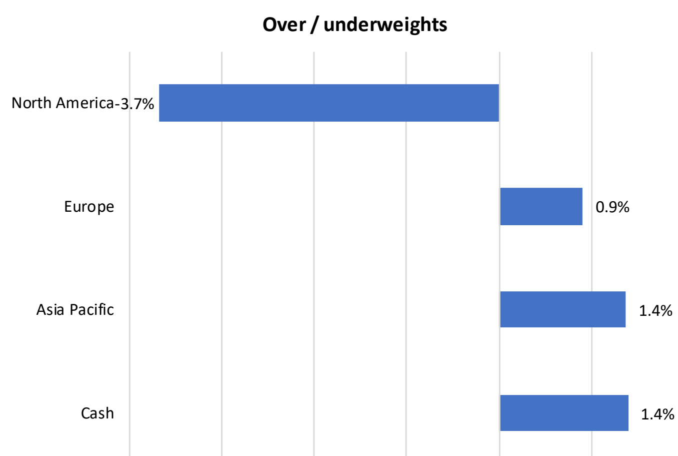


Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020.

As we made no changes over the quarter, the regional and sector exposures are broadly in line with that of Q2.

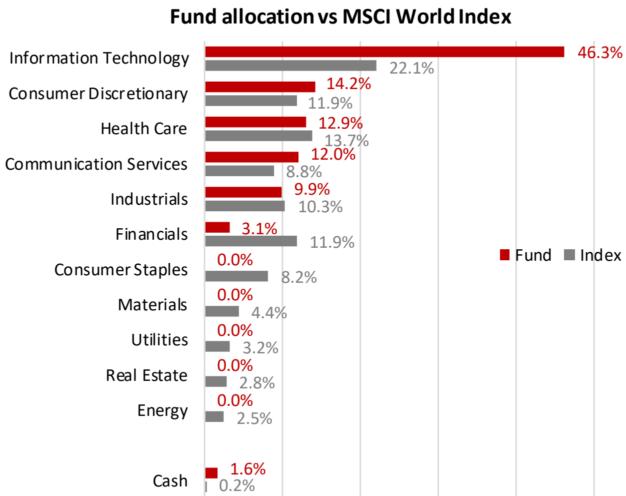
The fund's allocation to regions are similar to that of the MSCI World. However, this was a result of bottom-up stock picking and not a "top down" decision.

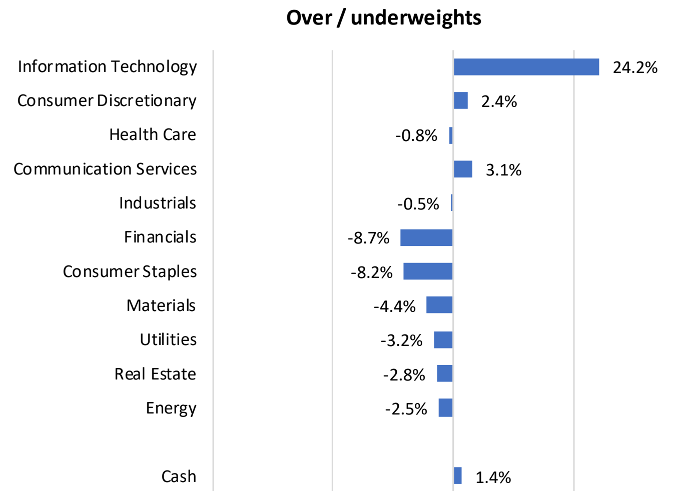




Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020.

On a sector level, the fund continues to have a large overweight to IT (24.2%), while the fund's 0% exposure to Real Estate, Energy, Materials, Consumer Staples, and Utilities leaves these areas underweight relative to the benchmark.





Source: Guinness Atkinson Asset Management, Bloomberg. Data as of September 30, 2020.

Key fund metrics today

Innovation: We seek companies that are exposed to secular growth themes, which should therefore be more insulated to cyclical growth 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 justify a greater premium.

Conviction: Although we run a concentrated portfolio of 30 stocks (typically), we equally weight each position. This caps stock specific risk, 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	10%	8%
	CAPEX / Sales	5%	8%
Quality	CFROI (median 2020)	18%	8%
	Return-on-Equity	25%	8%
	Weighted average net debt / equity	9%	60%
Growth (& valuation)	Trailing 3-year sales growth (annualized)	14%	11%
	Estimated earnings growth (2021 vs 2020)	20%	29%
	FCF yield	3.1%	3.9%
	PE (2020e)	27.4	24.0
Conviction	Number of stocks	30	1630
	Active share	85%	-

Source: Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg. Data as of September 30, 2020.

We thank you for your continued support.

Portfolio Managers

Matthew Page, CFA

Dr. Ian Mortimer, CFA

Summary performance

For the third quarter of 2020, the Guinness Atkinson Global Innovators Fund provided a total return of 11.1% (USD) against the MSCI World Index net total return of 7.9% (USD). Hence, the fund outperformed the benchmark by 3.3% (USD). Having outperformed in each quarter thus far in 2020, the fund has now produced a total return of 18.6% (USD) year-to-date, compared to the MSCI World net total return of 1.7% (USD).

Equity markets began the quarter where Q2 left off, with a strong rally in markets as investors looked to easing in lockdown restrictions. However, hopes were tempered as COVID cases in many regions began to rise, most notably in the US in early July before parts of Europe (Spain and France) surpassed previous highs. On the other hand, vaccine trials did begin later in the quarter, principally from Oxford University, which could be a catalyst for a rally in markets and an easing of lockdowns down the line – although much is still uncertain.

The most prominent news over the quarter came from the US where election debates began, President Trump and the First Lady contracted COVID-19, and tensions between the US and China once again made headlines with the possible banning of social media apps TikTok and Tencent's WeChat and the blacklisting of Chinese semiconductor foundry, SMIC. This meant the fund's holdings in Tencent and semiconductor equipment manufacturers such as Applied Materials were weaker (relative) in the quarter. However, markets were buoyed by the US Fed's decision in August to shift policy and target an average inflation rate of 2%, which was quickly interpreted as implying interest rates would be more likely to stay lower for longer.

Overall, during the quarter, the fund's performance can be attributed to:

- Positive returns from healthcare stocks held in the portfolio. These companies were the largest contributor to sector performance in the quarter with strong stock selection from MedTech companies Thermo Fisher (up 21.9% in USD over Q3), Danaher (up 21.9%) and Medtronic (up 14.0%).
- The fund's 0% exposure to Energy stocks was the 2nd biggest sector contributor to the fund's relative performance as the energy sector continued to underperform.
- Conversely, a lack of exposure to Materials was a drag on performance along with weaker stock selection in Industrials. This was primarily driven by a weak quarter from Roper Technologies (up 1.9% in USD over Q3) and a lack of exposure to transportation stocks – the 2nd best performing industry group over the quarter as a boom in parcel delivery continued (DPD, for example, announced the hiring of 20,000 new staff).
- Regionally, the fund was broadly positive, with chief outperformance coming from Europe, where in particular, companies with exposure to the sustainable energy transition such as Infineon (up 19.7% in USD over Q3), ABB (up 13.0%) and Schneider Electric (up 11.8%), resulted in positive stock selection from the region.
- The fund's largest regional exposure, the US, was also positive with Nvidia (up 42.5% in USD over Q3) and Nike (up 28.3%) the fund's top 2 performances over the quarter.
- The COVID-19 pandemic has accelerated growth prospects in the near-term for companies in a number of our themes such as Advanced Healthcare, Payments & Fintech, Cloud Computing, and Next Gen Consumer, while also improving the long-term growth prospects for companies in the Clean Energy & Sustainability and Robotics & Automation themes as fiscal stimulus packages are rolled out in Europe and other countries and as companies seek to increase resilience in their operations and supply chains.

as of 09.30.2020 (in USD)	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class[1]	31.62%	12.82%	16.49%	14.88%
Global Innovators, Institutional Class[2]	31.94%	13.10%	16.77%	15.01%
MSCI World Index NR	10.41%	7.72%	10.46%	9.37%

All returns after 1 year annualized.

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.

[1] Investor class (IWIRX) Inception 12.15.1998 Expense ratio* 1.24% (net); 1.35% (gross)

[2] Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 0.99% (net); 1.21% (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 0.99% for the Institutional class and 1.24% for the Investor class through June 30, 2021. 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.

Top 10 holdings for Global Innovators Fund, as of 9/30/2020:

1.	NVIDIA Corp	4.57%
2.	Adobe Inc	3.96%
3.	Infineon Technologies AG	3.93%
4.	NIKE Inc	3.72%
5.	Schneider Electric SE	3.71%
6.	Amazon.com Inc	3.65%
7.	Danaher Corp	3.61%
8.	Tencent Holdings Ltd	3.55%
9.	PayPal Holdings Inc	3.52%
10.	Microsoft Corp	3.48%

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.

One cannot invest directly in an index.

Active share measures the extent of active management in a portfolio compared to the corresponding benchmark listed.

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