Guinness Atkinson
Global Innovators Fund
Managers Update – July 2019

Quarter in Review:

Performance in April:

With equity markets producing strong returns in the first quarter of the year, the trend continued into April, with America and Europe leading the group. US data shook off fears of a slowing economy, registering GDP growth of 3.2% for Q1 – well above estimates of 2.3%. Additionally, unemployment remained steady at 3.8% and real wage growth came in at 3.3%, keeping inflationary concerns subdued. The fund benefited from the strong performance in the US – the fund's largest regional exposure – with stock selection from names such as Lam Research (up 19.1% in USD) and Facebook (up 16.0% in USD), providing the majority of outperformance relative to the MSCI World.

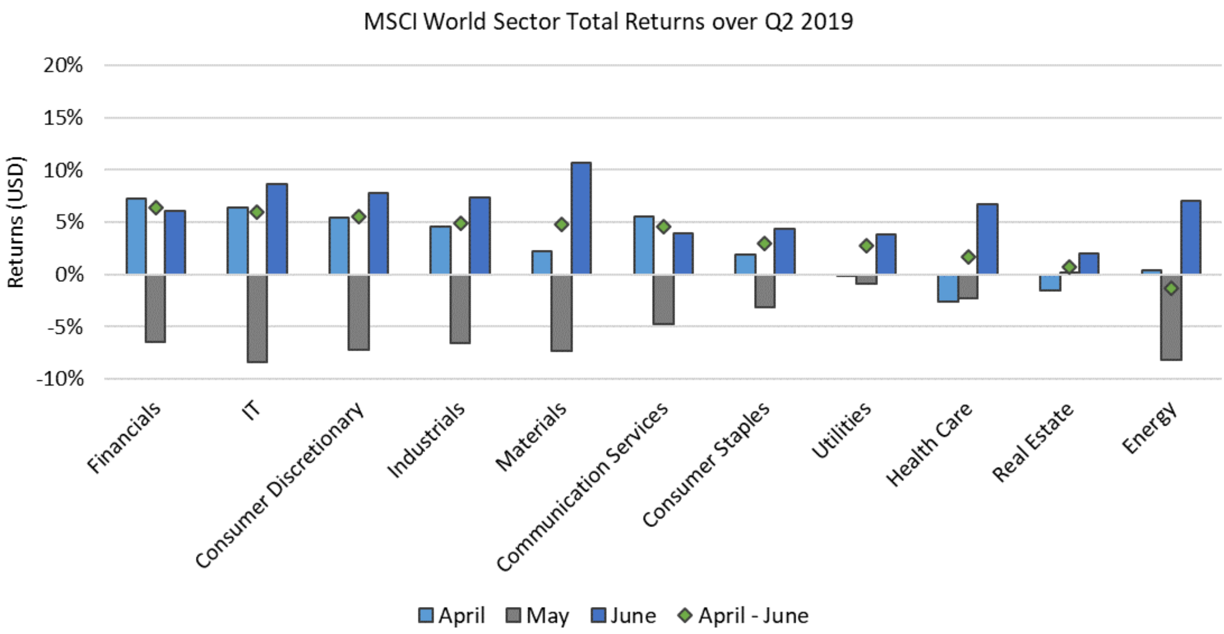

Figure 1: MSCI World sector performances in Q2 2019 (all TR in USD)

While our exposure to Asia-Pacific had been a tailwind in Q1, the region scaled back further gains to a modest 1.9% (USD) in April. China's manufacturing PMI came in at 50.2 for April – below March's 50.8 but still above the important 50 which indicates expansion. GDP data for Q1 indicated the economy grew 6.4% - slightly above the forecasted 6.3% but still well below 2018 Q1 growth of 6.8%. The region's relative underperformance to the rest of the world was a slight drag on the portfolio's asset allocation over the month.

Within Europe, the fund currently holds a small underweight position to the benchmark, a region which outperformed over the month. However, stock selection outweighed this with Infineon, the German semiconductor designer for electric and autonomous vehicles, and Continental, the manufacturer of vehicle tires, chassis' and powertrains, performing strongly over the month producing total returns (in USD) of 19.1% and 13.3% respectively.

On a sector level, strong returns from IT – the fund's largest sector exposure – contributed positively to asset allocation. In addition, stock selection within the sector was also positive with semiconductor names such as Infineon, Lam Research and Applied Materials performing strongly. The strong performance from financials left our underweight position contributing negatively to asset allocation over the month with our one position, Intercontinental Exchange, providing an otherwise positive total return of 6.8% (in USD). Conversely, the fund's underweight exposure to Health Care - the worst performing region over the month - contributed positively to asset allocation with the fund's one constituent, Danaher, producing 0.3% (in USD) while the sector was down.

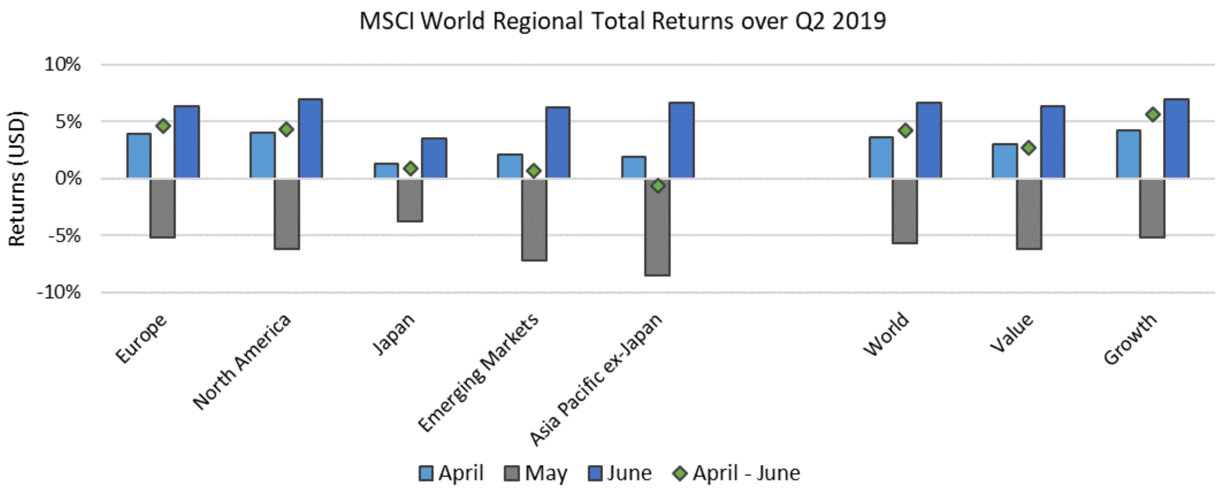

Figure 2: MSCI World regional performances in Q2 2019 (all TR in USD)

Performance in May:

Into May, and with President Trump growing increasingly frustrated with the lack of progression on key trade issues, the US increased tariffs on a further $200bn of Chinese imports from 10% to 25% - a move threatened in March. The move was met with a backlash from Chinese officials with China raising tariffs on $60bn of US goods with market bellwethers such as Apple and Caterpillar, who have significant exposure outside of the US, experiencing large selloffs. The resulting underperformance from Chinese equities was a drag on the portfolio.

In addition to an increase in tariffs, the US also put Chinese smartphone and telecoms business Huawei, on a blacklist preventing US companies from selling to the company without a license. The news sent many global stocks down with semiconductor stocks bearing the largest impact as Huawei relies heavily on US semiconductor companies. In addition, the blacklisting forced fund constituent, Alphabet, which licences its Android operating system to Huawei to be used on its smartphones, to stop supplying the system to comply with regulations.

With the US-China trade conflict back into view, President Trump also threatened to impose a 5% tariff on all Mexican goods from June 10 in an effort to control immigration coming from Central America, through Mexico and into the US. The move threatened to upheave the efforts made last year to revamp the NAFTA agreement signed by the US, Mexico and Canada. On a more positive trade note, the US did lift import taxes on Canadian and Mexican steel and aluminium as well as delaying potential car tariffs imported from Europe, Japan and other countries. The news left Europe as one the best performing regions.

Investors turned their attention to more defensive sectors over the month with IT, the fund’s largest sector weighting, the biggest underperformer. This was the largest drag on the portfolio during May, with our semiconductor exposure, in particular, selling off on a combination of US-China trade tariffs and the Huawei blacklisting.

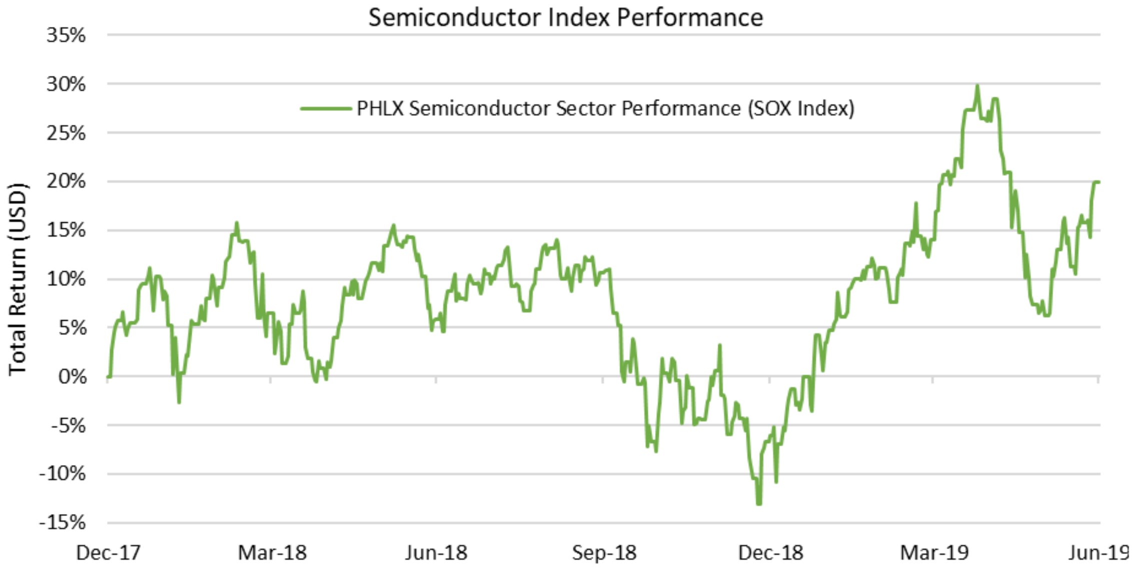

Figure 3: Philadelphia Semiconductor Index performance December 31, 2017 - June 30, 2019 (all TR in USD)

Performance in June:

Into June and trade disputes continued to make headlines. Having levied further tariffs on Chinese goods in May, all eyes were on the meeting between Trump and Xi at the G20 summit. The resulting agreement to hold off on further tariffs and the potential for US companies to continue trading from Huawei while talks continued, was taken positively by markets. This led to a reversal in the underperformance in semiconductor companies seen in May, with IT providing the largest proportion of positive performance from an asset allocation point of view on a sector level.

Elsewhere, Trump continued his attack on the US Fed after not cutting interest rates during their June meeting, claiming the Fed chairman, Jay Powell, was doing a 'bad job' and that it was not creating an even playing field against China. However, the tone set by the Fed continued to sway towards possible cuts by year end with Mr Powell indicating risks to global growth had increased in recent weeks. The market implied forecast for US interest rates by the end of year now price in a 100% probability of rate cuts – a stark contrast to what was predicted at the beginning of the year. The increasingly dovish tone set by the US Fed enabled US equities to extend their rally with the S&P 500 reaching record highs. Although the fund is underweight the US and hence, contributed negatively to asset allocation, strong stock selection within the region from companies such as Nvidia (up 21% in USD) and Applied Materials (up 16% in USD) more than offset this negative impact.

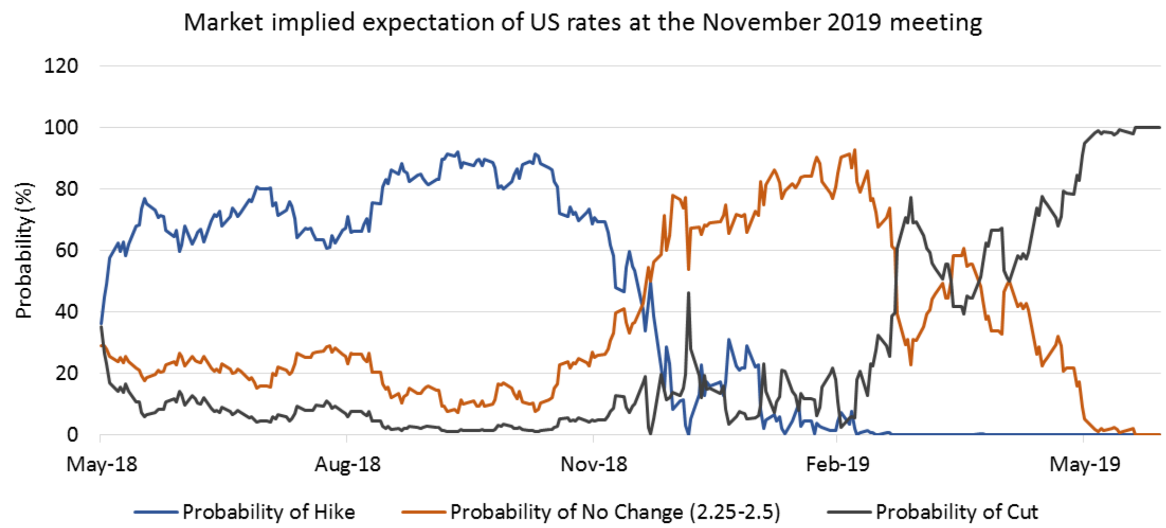

Figure 4: Implied probability of US interest rates

In China, protests continued over an extradition bill in Hong Kong that many fear will make it easier for China to seize suspects in the territory to face trial in the mainland. Nike, one of the fund constituents, was in the crosshairs, cancelling a limited-edition line of sport shoes after one of their Japan-based studios that designed the range posted a picture on Instagram in support of the anti-extradition protests.

With the tariff truce between the US and China agreed at the G20, Chinese equities experienced some relief, especially given the selloff endured over May when Trump increased tariffs on Chinese goods. Again, although our overweight position to Asian equities was a slight drag on the fund, stock selection from companies such as Tencent (up 9% in USD) and Anta Sports (up 12% in USD) subsequently resulted in Asian asset allocation being the largest regional contributor to fund performance over the month.

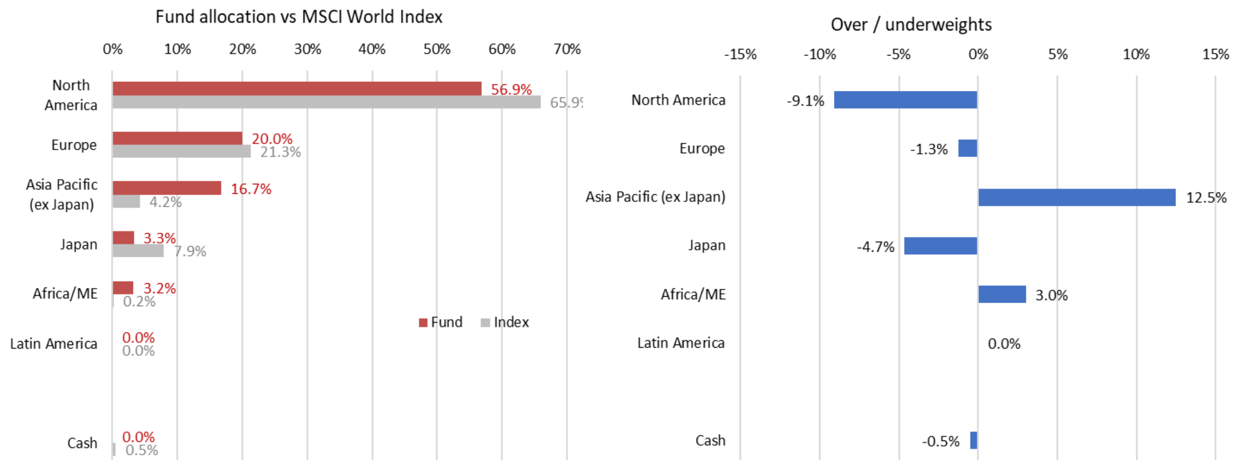

Figure 5: Geographic breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2019)

Over the quarter as a whole, the fund's overweight exposure to Asia Pacific ex-Japan (fund's weighting of 16.7% against MSCI World 4.2% at quarter end) was the largest regional drag on the portfolio having been one of the largest attributors to fund outperformance over Q1. Our exposure to European equities was the largest regional contributor to fund performance over the quarter with strong stock performances from SAP (up 20% in USD) and Schneider Electric (up 19% in USD) the primary reason.

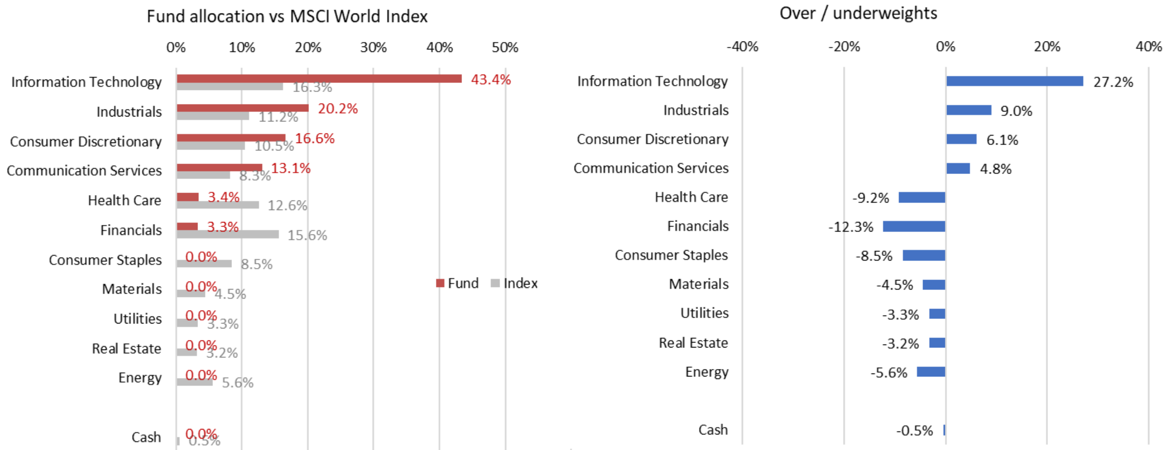

Figure 6: Sector breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2019)

On a sector level, our overweight position to IT contributed positively to asset allocation, however, stock selection to names such as Cognizant and Checkpoint Software, was a drag on the portfolio. The fund's exposure to the Industrials sector made up the largest proportion of positive attribution with stock selection from Schneider Electric (up 19% in USD) and ABB (up 11% in USD) the largest contributors.

Individual stock performance over Q2 2019 (total returns USD):

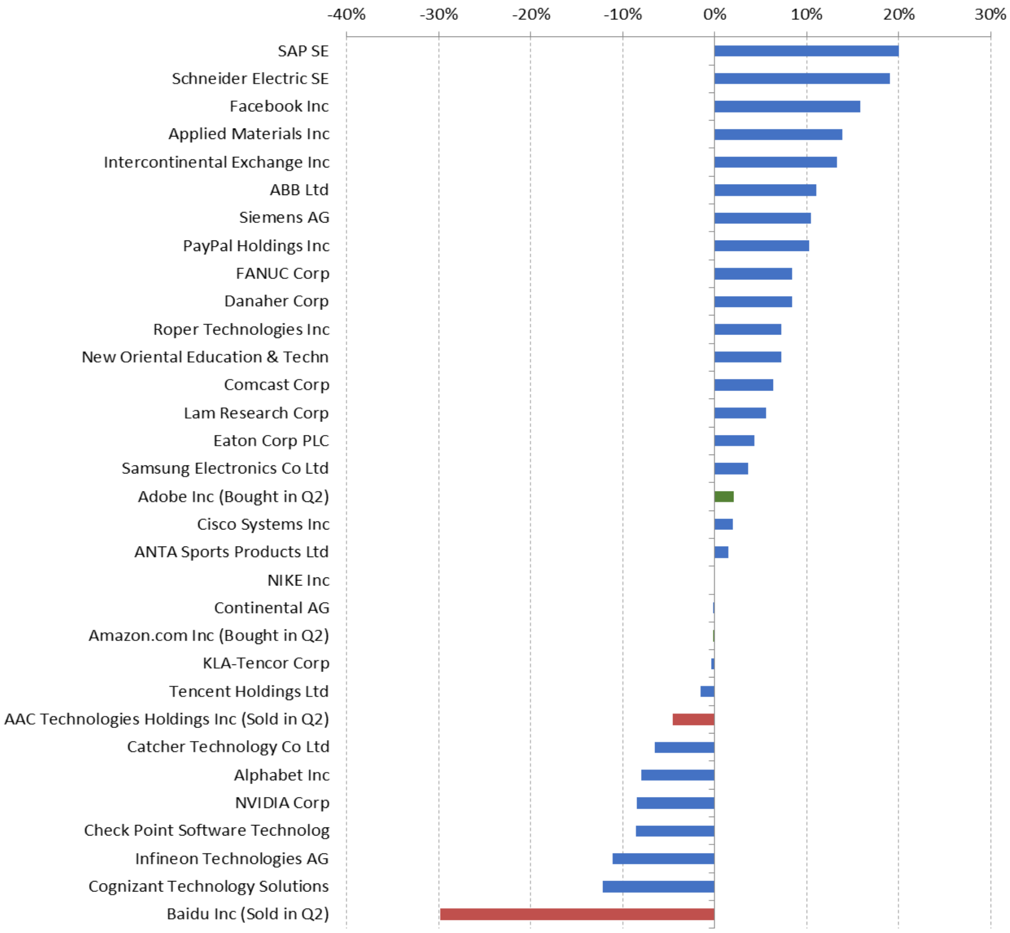

Figure 7: Individual performances of fund constituents. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2019)

Individual companies that performed well over the quarter included SAP (20.0% in USD) and Schneider Electric (19.0% in USD).

SAP, the maker of enterprise software that helps businesses manage operations and customer relationships, was the fund's best performing stock over the quarter. In April, it was announced that activist investor Elliot Management had built a stake in SAP in order to drive profitability that matches the company's significant revenue growth over the past few years. In addition, SAP posted quarterly earnings during the quarter that beat estimates by 8.6% and raised guidance for the full year. SAP has experienced strong revenue growth with the scaling of cloud platform usage and with SAP trading on 25x 1FY (fiscal year) price-to-earnings (PE) – a discount to competitors - we continue to see good upside.

Schneider Electric, the manufacturer of power distribution and automation systems such programmable logic controllers, industrial control products and detectors, has benefitted from the automation of factories and the rising need for energy-efficient products. The company has seen rising margins over the last few years with its strategic plan to be the leading integrated energy management and automation company. Schneider posted quarterly results that beat estimates with revenue increasing by 20% more than analysts had expected. Schneider Electric currently trades on 15x next year's earnings, exhibiting stable returns-on-investment over the last decade and continues to drive growth through transformation of its business strategy.

Individual companies that underperformed over the quarter were Baidu (-29.8% in USD) and Cognizant (-12.2% in USD).

Baidu, commonly referred to as China's version of Google, operates the largest search engine in China, along with additional segments including iQiyi, the largest entertainment streaming platform in China and Apollo, one of the leading autonomous vehicle operating systems. Over the past quarter, Baidu reported its first loss since going public in 2005 on higher traffic acquisition costs to drive traffic back to its search engine and away from super-apps such as WeChat (owned by the Tencent), along with rising content costs for iQiyi as they seek to create new and exciting content for viewers. Revenue growth had also slowed and as we discuss later in the update, we sold our position in Baidu at the end of the quarter.

Cognizant, the provider of custom IT consultancy services, reported their first quarterly earnings miss, attributing the surprise to weakness in financial services and healthcare customers. Cognizant now trades ~1 standard deviation below its long-term average PE ratio, has experienced above 10% EPS (earnings per share) growth in 13 of the last 14 years and remains forecasted to grow above 10% for the next 3 year. As such, we still view Cognizant as good value with returns coming from good earnings growth as well as a possible re-rating.

Changes to the portfolio:

Over the quarter we made two changes, selling our positions in AAC Technologies and Baidu, while initiating new positions in Amazon and Adobe.

AAC Technologies, the manufacturer of miniaturized components for smartphones including acoustics, haptics and antenna, has faced increasing pressures from the slowing global demand for smartphones and increasing competition. We bought AAC Technologies in 2016 based on its market leading position in smartphone components and the ever-increasing need for quality components in more premium smartphones. AAC technologies constantly yielded 30% operating margins which reflected this leadership (well above competitors) however, as they have diversified into new areas, such as haptics, and have faced new competition in their specialist area of acoustics, AAC's operating margins and returns on capital have come under increasing pressure. As a consequence, with AAC losing some of its competitive edge, while also facing slowing global demand, we felt the company could struggle to grow in the future and lower returns would justify a lower multiple and, as such, it no longer met our criteria for the portfolio.

Baidu, the operator of China's largest search engine and various other leading products and services, has faced the increasing propensity for users to enter their queries into alternative platforms such as the super-app, WeChat, owned by Tencent. Although Baidu has been experiencing the secular tailwind in the movement to online advertising, the increasing competition and rising costs to acquire traffic in search (which makes up the majority of its revenue) has had a detrimental effect on Baidu's margins, with operating margins falling from~50% in 2012 to ~18% in 2018. Subsequently, we felt although Baidu has leading positions in entertainment streaming, autonomous vehicles and other innovative areas, the increasing competition within Baidu's main segment, Search, had reduced our conviction in Baidu's ability to stem further margin erosion, while continuing to reinvest to drive growth going forward.

Amazon is the operator of the e-commerce platform in addition to leading positions in cloud computing, digital streaming and artificial intelligence. Amazon is known for its industry disruption and, although trades on higher multiples than industry peers, Amazon's ability to increase their profitability over the recent years as it scales up operations in segments including Amazon Web Services (AWS), their cloud computing platform, has enabled Amazon to expand their margins and grow cash flows, while continuing to reinvest in new disruptive technologies such as drone delivery.

Adobe, the undisputed leader in creative and document software including Photoshop and Acrobat Reader, which has been making headway into the marketing and analytics, has benefited from the transition to cloud-based products and increasing mix of non-professional subscribers. The shift to higher margin, higher recurring revenue from cloud-based software has resulted in year-on-year increases in operating margins and returns-on-capital. Trading at ~30x 2020 earnings, while exhibiting ~32% operating margins (greater than competitors) and forecasting year-on-year earnings growth of 20%, we see Adobe as a highly reputable business with strong long-term growth potential while not trading at a substantial premium.

Portfolio characteristics

The below chart highlights the geographic weighting of the portfolio both in terms of where the companies are domiciled and where their revenues come from.

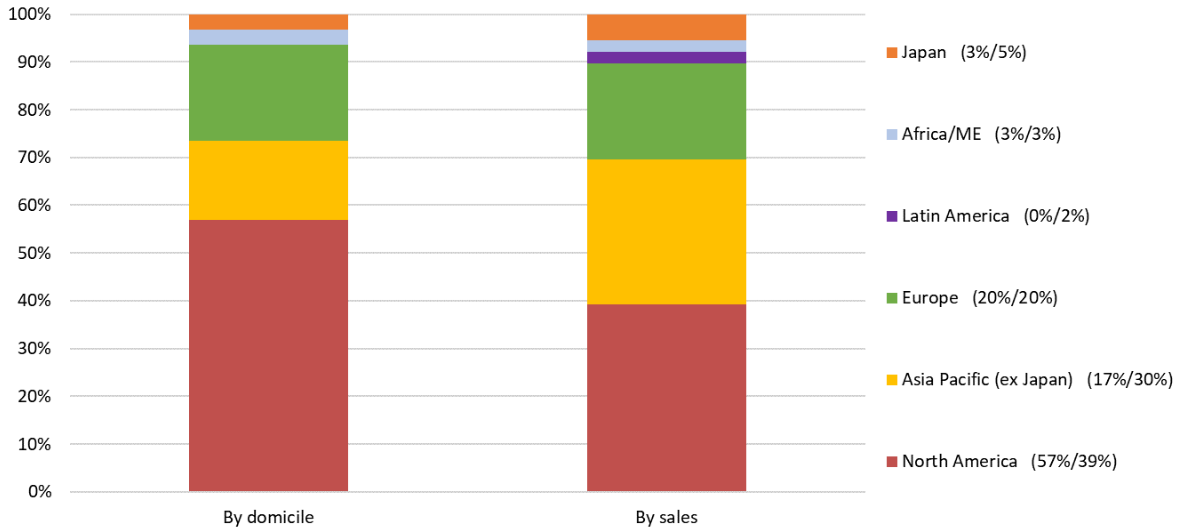

Figure 8: Geographic breakdown of the fund. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2019)

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. Technology remains our largest exposure, split between three sub-sectors: semiconductors; software and services; and technology hardware. The two switches we made during the month (sold AAC technologies and Baidu and bought Amazon and Adobe), had the effect of increasing the fund's exposure to consumer discretionary by one position and reducing our exposure to Communication Services by one position. There was no net effect on our exposure to IT.

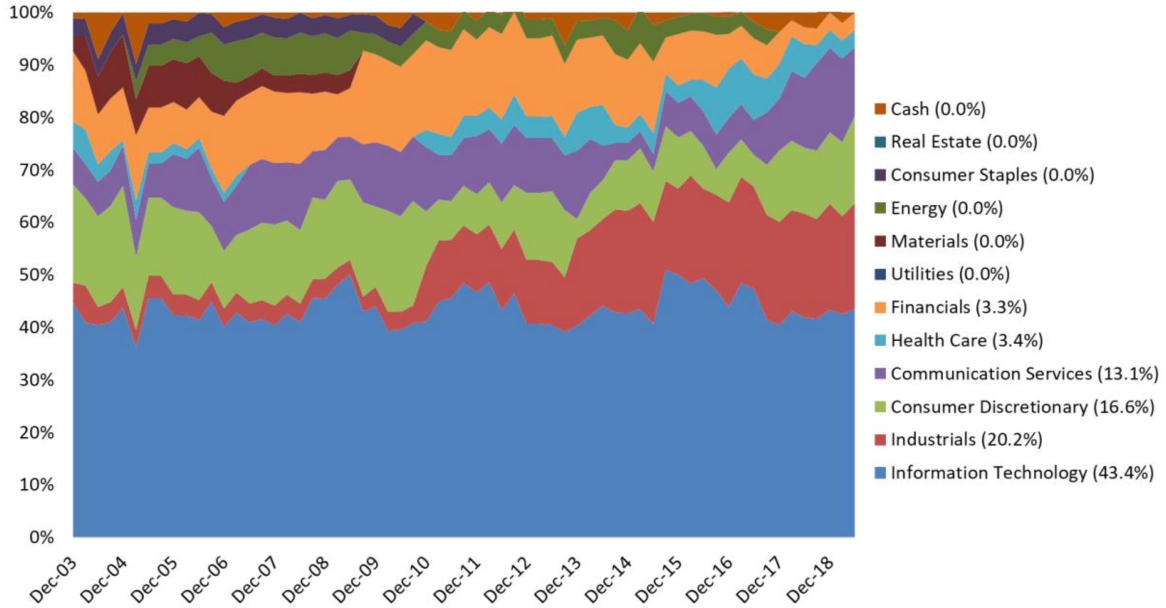

Figure 9: Portfolio sector breakdown. Guinness Atkinson Asset Management, Bloomberg (06.30.2019)

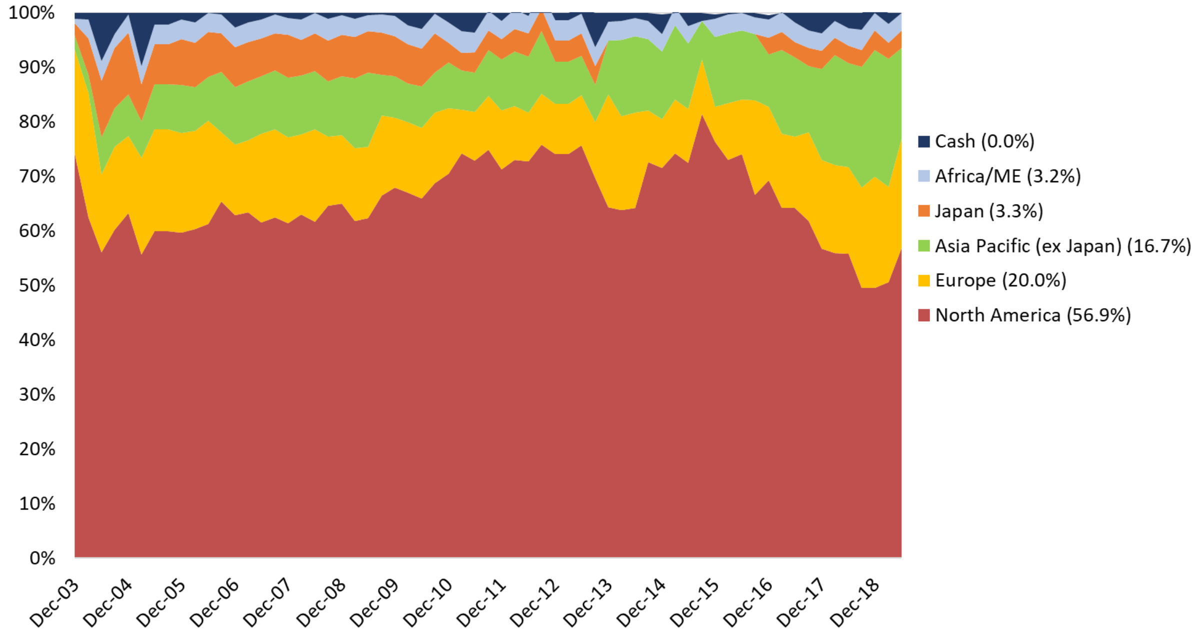

Figure 10: Portfolio geographic breakdown. Guinness Atkinson Asset Management, Bloomberg (06.30.2019)

The change in regional exposure as a result of the two changes was in decrease in exposure to Chinese equities (AAC Technologies and Baidu), while increasing the exposure to US (Amazon and Adobe).

Key fund metrics today

The four key tenets to our approach are innovation, quality, growth, and conviction.

		Fund	MSCI World Index
Innovation	Research & Development / Sales	8%	6%
	CAPEX / Sales	6%	9%
Quality	CFROI (median 2019)	16%	8%
	Weighted average net debt / equity	-2%	96%
Growth (& valuation)	Trailing 3-year sales growth (annualised)	14%	8%
	Estimated earnings growth (2020 vs 2019)	13%	10%
	FCF yield	5%	5%
	PE (2019e)	19.3	16.3
Conviction	Number of stocks	30	1190
	Active share	98%	-

Figure 11: Portfolio metrics versus index. Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (data as at 06.30.2019)

The fund now trades at an 18% premium to the broad market on a PE ratio basis (fund 19.3x 2019 expected earnings vs MSCI World Index 16.3x), but remains in-line on a FCF yield basis while currently forecasting 13% EPS growth vs MSCI World 10%. We therefore believe the portfolio offers good value relative to the market today given the exposure to higher quality (median CFROI 2019 16% vs 8%), innovative companies who are exposed to higher growth areas (3-year trailing sales growth 14% vs 8%).

We thank you for your continued support.

Portfolio Managers

Matthew Page, CFA

Dr Ian Mortimer, CFA

Guinness Atkinson
Global Innovators Fund
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GUINNESS ATKINSON FUNDS

Summary performance

For the month of June, the Guinness Atkinson Global Innovators Fund provided a total return of 8.71% (USD) against the MSCI World Index net return of 6.59% (USD). Hence the fund outperformed the benchmark by 2.12% (USD). For the 2nd quarter of 2019, the fund produced a total return of 2.80% (in USD) against the MSCI World net total return of 4.00% (in USD). Year-to-date the fund has produced a total return of 21.21% (in USD) against the MSCI World net total return of 16.98% (in USD), hence outperforming by 4.23%.

as of 06.30.2019 (in USD)	YTD	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class[1]	21.21%	0.60%	15.08%	8.03%	14.49%
Global Innovators, Institutional Class[2]	21.35%	0.86%	15.36%	8.22%	14.59%
MSCI World Index NR	16.98%	6.35%	11.79%	6.61%	10.72%

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, visit 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* 1.25% (net); 1.30% (gross)
30-Day SEC Yield as of 6/30/19: 0.49 % (subsidized) 0.35% (unsubsidized)

[2]Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 1.00% (net); 1.13% (gross)
30-Day SEC Yield as of 6/30/19: 0.72 % (subsidized) 0.50% (unsubsidized)

All returns after 1 year annualized.

[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 .99% for the Institutional class and 1.24% for the Investor class through June 30, 2020. 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 may invest in derivatives which involves risks different from, and in certain cases, greater than the risks presented by traditional investments.

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 6/30/19:
1. Applied Materials Inc 3.76%
2. Infineon Technologies AG 3.66%

3. ANTA Sports Products Ltd	3.64%
4. KLA-Tencor Corp	3.61%
5. NVIDIA Corp	3.56%
6. Eaton Corp PLC	3.52%
7. New Oriental Education & Technology Group Inc	3.45%
8. Lam Research Corp	3.41%
9. Schneider Electric SE	3.40%
10. FANUC Corp	3.38%

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

This information is authorized for use when preceded or accompanied by a prospectus for the Guinness Atkinson Funds.

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

The Philadelphia Semiconductor Index (SOX) is a capitalization-weighted index composed of 30 semiconductor companies. The companies in the Index have primary business operations that involve the design, distribution, manufacture and sale of semiconductors

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.

Standard Deviation is a statistical measure of the volatility of the fund's returns. In general, the higher the standard deviation, the greater the volatility of the return.

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 targeted longer-term refinancing operations (TLTROs) are Eurosystem operations that provide financing to credit institutions for periods of up to four years. They offer long-term funding at attractive conditions to banks in order to further ease private sector credit conditions and stimulate bank lending to the real economy.

Capital Expenditure (CAPEX) is an amount spent to acquire or upgrade productive assets (such as buildings, machinery and equipment, vehicles) in order to increase the capacity or efficiency of a company for more than one accounting period.

One cannot invest directly in an index.

The 30-Day SEC Yield represents net investment income earned by the Fund over the 30-Day period, expressed as an annual percentage rate based on the Fund's share price at the end of the 30-Day period. The 30-Day unsubsidized SEC Yield does not reflect any fee waivers/reimbursements/limits in effect.

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

A cash flow return on investment (CFROI) is a valuation metric that acts as a proxy for a company's economic return. Free cash flow (FCF) yield represents the cash a company generates after cash outflows to support operations and maintain its capital assets.

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