**Guinness Atkinson Global Innovators Fund – Manager's Update April 2019**

The year began with a sharp reversal in the tone of the US Fed as Jerome Powell, the Fed Chairman, signaled that slowing growth on a macro level and the US government shutdown – the longest in history – was enough to raise the possibility of less or even no further interest rate hikes this year. This came in stark contrast to the tone set by the Fed only a few months prior, whereby the interest rate path was supposedly set to 'autopilot'.

GDP data for the fourth quarter of 2018 showed that China grew at 'only' 6.4% year-on-year leading to concerns over slowing growth and raising the possibility of further government stimulus – for example the People's Bank of China (PBoC) announced it would cut the Reserve Requirement Ratio for banks by a further 100 basis points. US-China trade talks continued to deliver mixed messages, however, China did pledge to buy significant volumes of agricultural, manufacturing and other US products to begin rebalancing the trade deficit. China was subsequently one of the best performing regions with New Oriental Education, the private tutoring service in China, up 40.6% in USD over the month – the fund currently holds an overweight exposure to China.

On a stock specific level, semiconductor companies including LAM research (up 24.5% USD) and Applied Materials (up 19.4% USD) rallied strongly over January as the majority of management teams gave upbeat outlooks for the second half of 2019. Having been some of the most beaten up stocks of 2018, the commentary raised the serious possibility of an inflection point in demand going into Q3. The fund currently holds 6 companies in the semiconductor industry, which have produced strong historic returns but have more recently had valuations compressed to near long-term lows. Consequently, the raised outlook for the second half of the year leaves the fund in a strong position to take advantage of future earnings growth and possible re-ratings. (See January update for more details on management commentary and our investment thesis for semiconductor names)

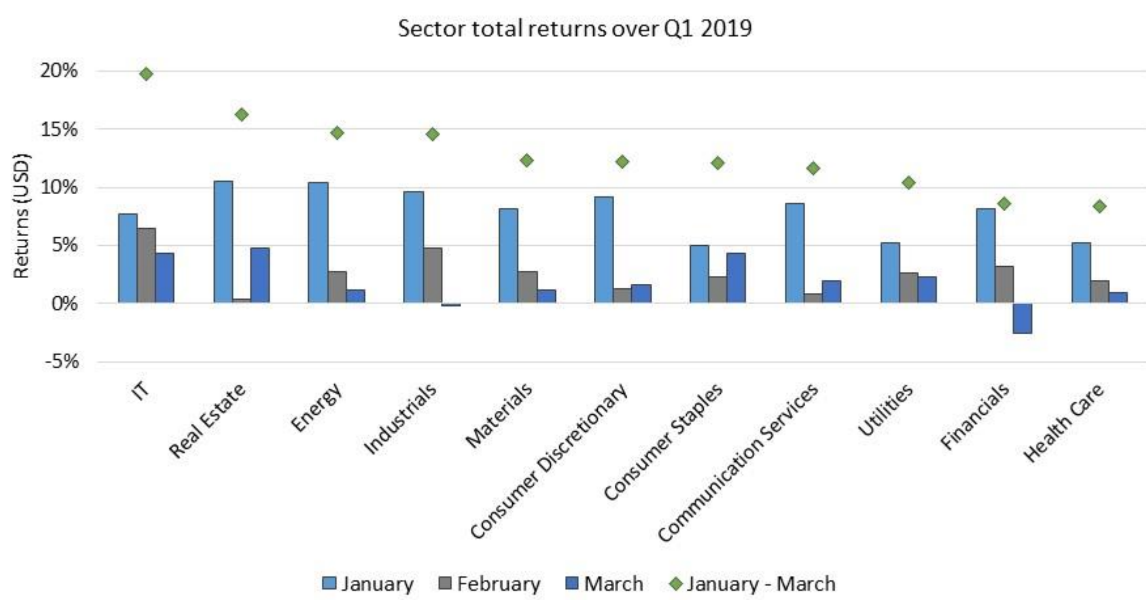


**Figure 3: Sector performances in Q1 2019 (all TR in USD)**

Into February and Chinese equities continued their surge. Enough progress had been made in trade talks between the US and China to warrant President Trump postponing hikes in tariffs previously set to be introduced on March 1st.

However, a lack of meaningful news on key areas of contention such as intellectual property still left much to be decided.

Fund constituents including New Oriental Education and Anta Sports, the Chinese clothing company, continued to benefit from the rebound in Chinese equities, however, it was our exposure to the US market which was the largest contributor to the fund outperformance over the month. Minutes released from the US Federal Open Market Committee (FOMC) meeting continued to point to a more patient approach on interest rate hikes while also showing a desire to end the reduction of the Fed's balance sheet as soon as possible.

Additionally, the fund's performance over February was aided by idiosyncratic factors arising from positive earnings reports released over the month. Of the 30 companies within the portfolio, 25 companies had reported 4th quarter results of which 88% reported positive EPS (earnings per share) surprises and 88% reported positive revenue surprises. Danaher Corporation, the diversified conglomerate with products in life sciences, diagnostics, dental and environmental solutions, delivered results slightly above estimates, while announcing that they had agreed to buy General Electric's (GE) biopharmaceutical unit. This left the company as the fund's top performer over the month up 14.5% in USD.


**Figure 4: Regional performances in Q1 2019 (all TR in USD)**

Equity markets continued their ascent into March albeit returning more modest gains. North America and Asia Pacific ex-Japan were the top performing regions over the month, both returning 1.7% in USD. This benefited the fund's performance with the US being the fund's largest regional exposure and the fund exhibiting an overweight position to Asia pacific.

Economic data released from Europe continued to be in decline with manufacturing data hardest hit. Manufacturing PMIs (Purchasing Managers' Index) for Europe as a whole dropped to 47.5 (below 50 indicating contraction), while Germany continued to be the major contributor with its own manufacturing PMI dropping to 44.1. ABB, the power and robotics company held in the fund, subsequently underperformed, returning -5.2% (USD) over the month. The European Central Bank (ECB) held rates as expected in their meeting during the month, however, they also expressed their intention to further postpone any future interest hikes, now not expected until at least next year. Additionally, the ECB announced a new round of targeted longer-term refinancing operations (TLTROs) – cheap financing for the banking sector – as their endeavor to stimulate growth within the region continues.

A broadly similar story emerged from the US Fed, who also held rates steady at their meeting and now do not expect any interest hikes at all this year. Support for fixed income markets also came as the Fed announced their intention to end quantitative tightening by September this year. The general theme of easing interest rate hikes left Financials as the worst performing sector over the month which aided the fund's relative performance as a consequence of the fund's underweight positioning.

The fund's exposure to China was the largest contributor to the fund's outperformance over the month. With US-China trade talk rumbling on, the momentum in stocks was enough to outweigh mixed economic data out of China. Chinese officials reduced their GDP forecast from a hard 6.6% to a range of 6.5%-6.6% and export data continued to decline, down 21% YoY as US-China trade tariffs take their effect. The Chinese PMI rebounded back above 50 providing some relief, however, with the PMI barely above 50, time will tell if government stimulus can boost this figure by a more meaningful degree.

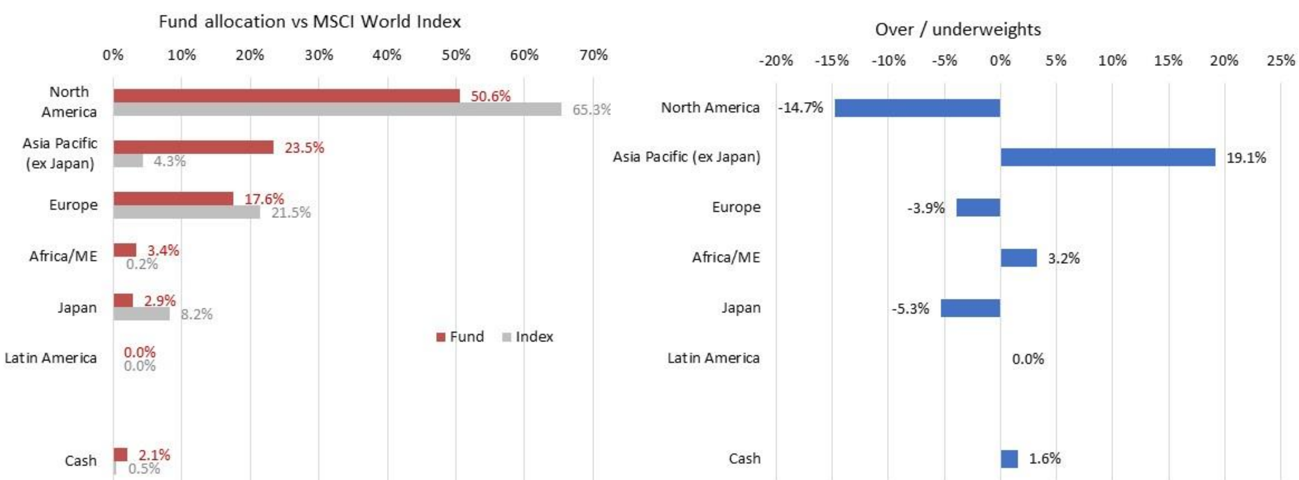


**Figure 5: Geographic breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.2019)**

Over the entire quarter, the fund's overweight exposure to Asia Pacific ex-Japan (fund's weighting of 23.5% against MSCI World 4.3%) and in particular, China was the largest regional contributor to the fund's outperformance with the most significant returns coming from New Oriental Education (up 64.4% in USD) and Anta Sports (up 41.8% in USD). Additionally, the fund's largest regional exposure, North America (fund 50.6%), produced significant stock selection attribution as our overweight positions in semiconductor companies and global conglomerates, Danaher and Roper Technologies, produced strong returns.

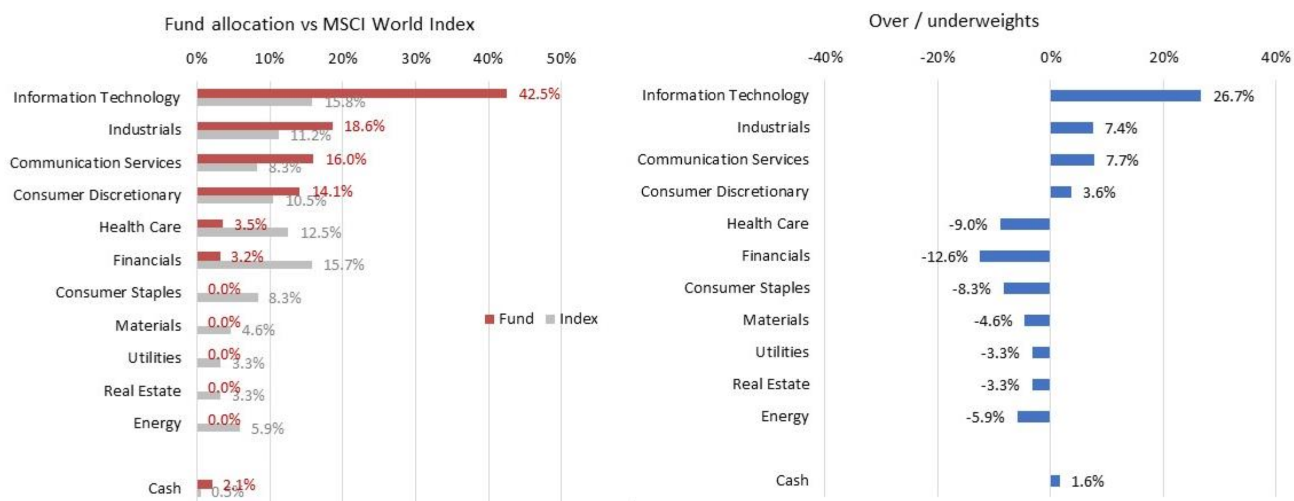


**Figure 6: Sector breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.2019)**

On a sector level, our overweight position to IT, the highest performing sector over the quarter, produced the largest contributions to the fund's outperformance. In particular, the portfolio's exposure to semiconductor names such as Nvidia (up 34.6% in USD) and KLA Tencor (up 34.3% in USD), provided the most significant contribution to the performance, having previously been on a drag on the portfolio over Q4 2018. The fund continues to hold no positions in Energy, Real Estate, Utilities, Materials and Consumer Staples.

**Individual stock performance over Q1 2019 (total returns USD):**

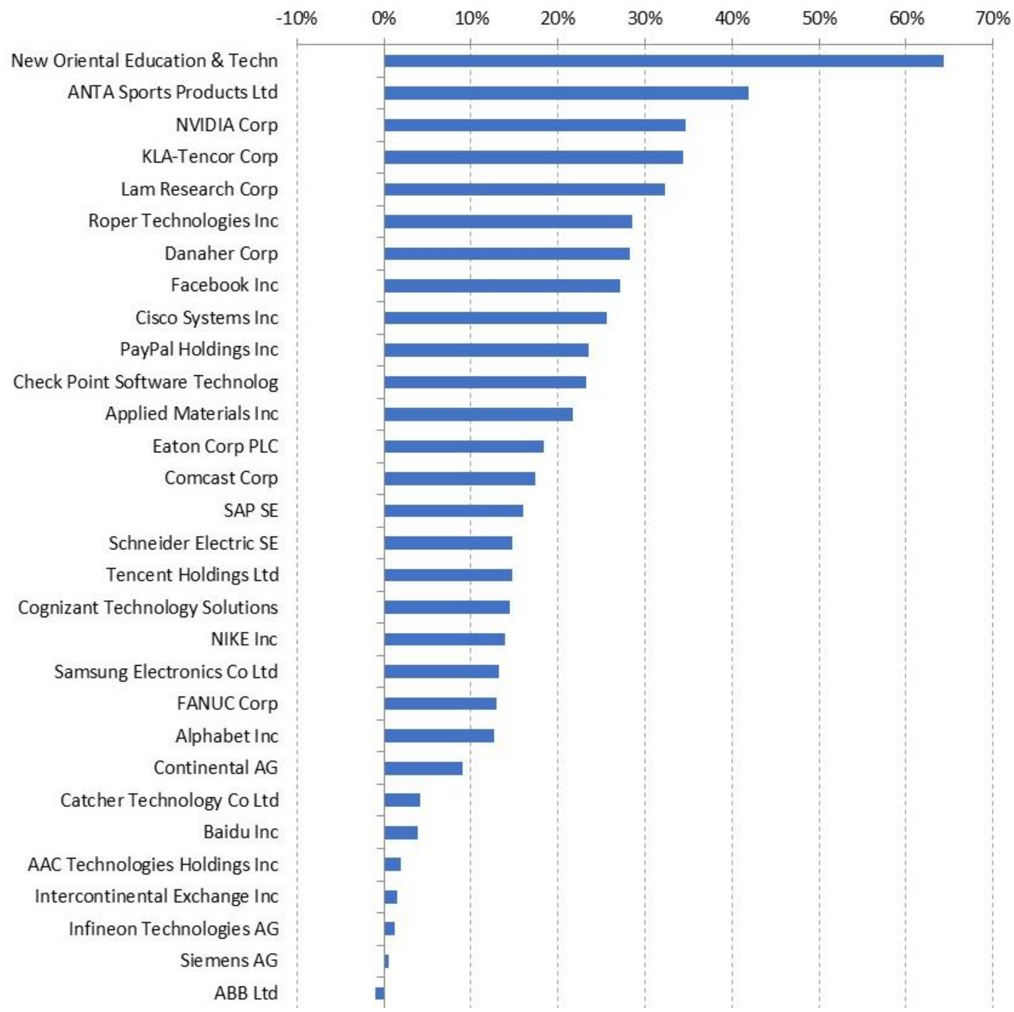


**Figure 7: Individual performances of fund constituents. Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.2019)**

Individual companies that performed well over the quarter included New Oriental Education (64.3% in USD) and Anta Sports (41.9% in USD).

**New Oriental Education**, the provider of private tutoring services in China, began the year positively, reporting top and bottom-line figures that beat analysts' forecasts for the first quarter. The stock had been one of the fund's largest underperformers of 2018, mainly on increased regulation in private tutoring services within China – a move we felt was overdone, given increased regulation and standardization of the industry should stand to benefit the larger players in the long-term as smaller players are pushed out. New Oriental Education last year announced an expansion effort to gain a greater share of the largely fragmented private tutoring market.  In the latest earnings report, the company reported expansions efforts were on-track with total schools and learning centres up 20% YoY, while announcing a new initiative named "3S" – Standardization, Streamlining and Systematization – dedicated to improving the efficiency of the company. The fund's equal-weighting strategy, which ensures we periodically trim the overperforming stocks and top-up the underperformers, resulted in the gradual increasing of our exposure as the stock underperformed in 2018 and subsequently, the reduction of our exposure as the stock has rallied into 2019.

**ANTA Sports** was the second-best performing stock in the fund over the first quarter, up 41.9% (USD). The company generates revenue through the manufacture and trading of sporting goods, including footwear, apparel and accessories. ANTA is poised for greater market share in China as it seeks to woo affluent shoppers with pricier athletic gear. This includes popular brands such as Fila and Descente, as well as Salomon and Arc'teryx – both owned by Amer Sports, who ANTA has recently acquired. Going premium should make up for less-robust gains at its lower-priced namesake brand, which sells at half the price of Nike and Adidas products. ANTA's sales growth is likely to accelerate from the acquisition of Amer, yet a profitability boost may not be likely for some two years. On the upside, the move to acquire a European company gives ANTA Sports scale to expand geographically, as well as launch new products in China. The company's growing product offering could well fuel earnings and revenue growth and the shrewd move into winter sport clothing and equipment comes well-timed ahead of the next Winter Olympics in 2022 in Beijing.

Individual companies that underperformed over the month were ABB Ltd (-1.0% in USD) and Siemens (0.5% in USD).

**ABB,** the provider of power and automation technologies**,** announced in December the splitting off of its power grid business to Hitachi in order to streamline the business as it looks to focus its efforts on industrial automation via the production of robotics. Over the last quarter, analysts have continued to downgrade their estimates over worries of slow late cycle capex (capital expenditure) spending. ABB currently derives around 37% of its revenues from Asia, Middle East and Africa and 35% from Europe – regions which are currently experiencing slowing manufacturing PMIs. While we acknowledge these short-term headwinds, we believe the company will benefit from the longer-term secular shift toward automated production lines, whist the splitting off of its power grid business leaves ABB with a more focused platform.

**Siemens**, the engineering and manufacturing company which focuses on electrification, automation and digitisation, produced total returns of 0.46% (USD) over the quarter. The underperformance comes as the planned merger between Siemens' railway business and French train equipment maker Alstrom, was rejected by the European Commission, citing that the loss of competition in some European markets for signaling and high-speed trains would be too big. The planned merger was part of a larger push by European companies to create global champions from largely fragmented markets capable of competing with the likes of CRRC Corp, the state-backed company in China. In our view, Siemens continues to push in the right direction, merging or spinning out its subscale business lines in order to create market leaders and a more streamlined core. Siemens currently trades on a one-year forward PE of 13.8x with a forecasted growth rate of around 15% - an attractive position given Siemens' exposure to innovative themes such as automation and digitalization.

**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.

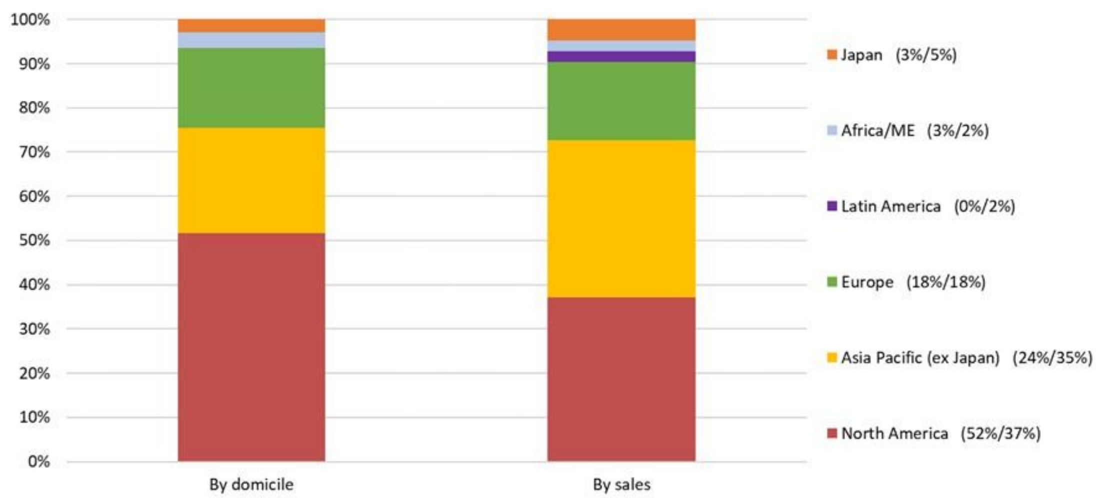


**Figure 8: Geographic breakdown of the fund. Guinness Atkinson Asset Management, Bloomberg (data as at 03.31.2019)**

The two charts below show how the exposure of the fund has evolved since we launched this 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.

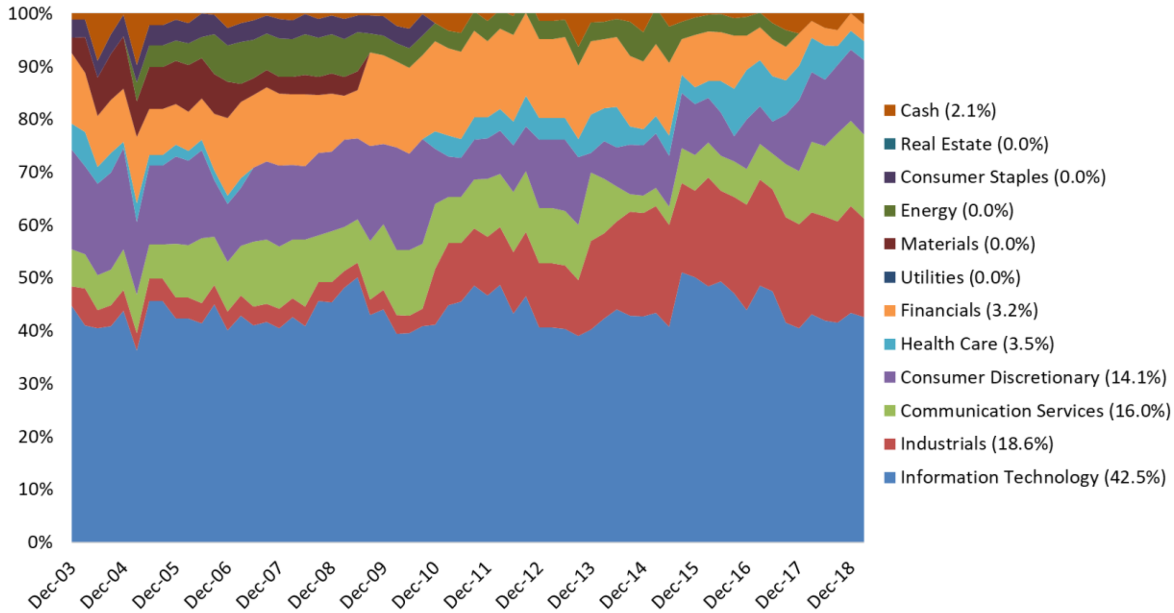


**Figure 9: Portfolio sector breakdown. Guinness Atkinson Asset Management, Bloomberg (03.31.2019)**

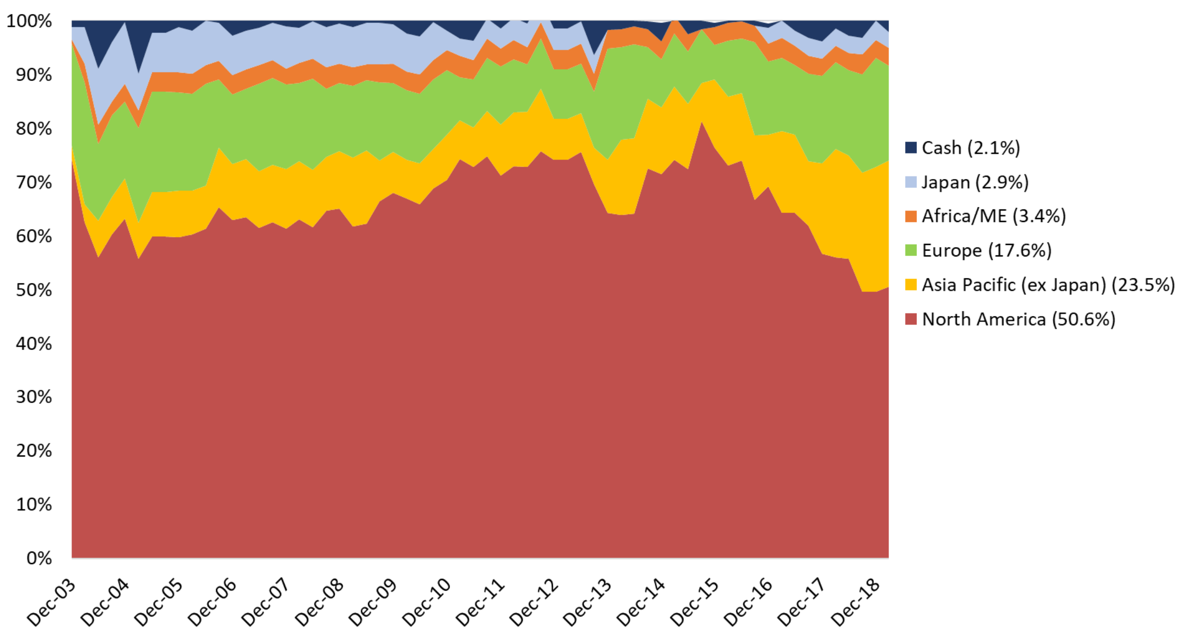


**Figure 10: Portfolio geographic breakdown. Guinness Atkinson Asset Management, Bloomberg (03.31.2019)**

Guinness Atkinson
**Global Innovators Fund**
Managers Update – April 2019

**Key fund metrics today**

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

| | | Fund | MSCI World Index |
|---|---|---|---|
| **Innovation** | R&D / Sales | 8% | 6% |
| | CAPEX / Sales | 7% | 10% |
| **Quality** | CFROI (cash flow return on investment) median 2019 | 16% | 8% |
| | Weighted average net debt / equity | -13% | 115% |
| **Growth (& valuation)** | Trailing 3-year sales growth (annualized) | 14% | 8% |
| | Estimated earnings growth (2020 vs 2019) | 13% | 10% |
| | FCF (Free cash flow) yield | 6% | 5% |
| | PE (2019e) | 17.7 | 15.7 |
| **Conviction** | Number of stocks | 30 | 1190 |
| | Active share | 97% | - |

**Figure 11: Portfolio metrics versus index. Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (data as at 03.31.2019)**

The fund is now trading at an 13% premium to the broad market on a PE ratio basis (fund 17.7x 2019 expected earnings vs MSCI World Index 15.7x). The longer-term premium of the fund versus the broader market has been in the 10-20% range, and so we still believe the portfolio offers good value relative to the market today. From a long-term perspective, the portfolio invests in highly efficient companies (median CFROI 2019 16% vs 8%) whose innovative nature differentiates them from competitors and consequently, should drive demand for their products.

We thank you for your continued support.

**Portfolio Managers**

Matthew Page, CFA

Dr Ian Mortimer, CFA

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GUINNESS ATKINSON FUNDS

**Summary performance**

For the first quarter of 2019, the Guinness Atkinson Global Innovators Fund (Investor Share Class) provided a total return of 17.91% (USD) against the MSCI World Index net return of 12.48% (USD). Hence the fund outperformed the benchmark by 5.43% (USD).

| as of 03.31.2019 (in USD) | YTD | 1 year | 3 years annualized | 5 years annualized | 10 years annualized |
|---|---|---|---|---|---|
| Global Innovators, Investor Class[1] | 17.91% | -2.93% | 13.30% | 8.99% | 16.38% |
| Global Innovators, Institutional Class[2] | 17.98% | -2.70% | 13.59% | 9.16% | 16.47% |
| MSCI World Index NR | 12.48% | 4.01% | 10.70% | 6.78% | 12.38% |

*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](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); 1.33% (gross)
30-Day SEC Yield as of 3/31/19: 0.57 % (subsidized) 0.42% (unsubsidized)

[2]Institutional class (GINNX) Inception 12.31.2015 Expense ratio* 0.99% (net); 1.17% (gross)
30-Day SEC Yield as of 3/31/19: 0.81 % (subsidized) 0.54% (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, 2019. 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.

As of November 2018, the MSCI World Index Net return was used instead of the Gross Return. MSCI World Index Net Return reflects deduction for withholding tax but reflects no deduction for fees and expenses. Net Return is net of local withholding taxes that any investor would typically pay.

**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 3/31/19:

| | |
|---|---|
| 1. NVIDIA Corp | 3.77% |
| 2. New Oriental Education & Technology Group Inc | 3.75% |
| 3. PayPal Holdings Inc | 3.75% |
| 4. Cisco Systems Inc | 3.74% |
| 5. Tencent Holdings Ltd | 3.66% |
| 6. Roper Industries Inc | 3.60% |
| 7. KLA-Tencor Corp | 3.58% |
| 8. ANTA Sports Products Ltd | 3.54% |
| 9. Comcast Corp - A Shares | 3.52% |
| 10. SAP SE | 3.45% |

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

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.

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.

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.

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.