Guinness Atkinson

# Global Innovators Fund Update

July 2017

**Quarter in Review**

World equity markets had another strong quarter, with the majority of gains occurring in April and May, finishing the quarter up 4.19% (in USD). This added to the positive start to seen in Q1 2017.

In April, we saw another month of markets reacting to the uncertainty of political foray and follies from U.S., Europe and Asia. Trump came to the end of his 100 days in office. Having laid out an ambitious list of goals in his “100-day action plan” last October, some were achieved and some were not.

In May, markets stayed largely buoyant despite elections, cyber-attacks, terrorist attacks and a deepening crisis relating to the Trump-Russian election interference allegations. In Europe, May began with a decisive victory by Emmanuel Macron, beating Marine Le Pen, and reducing the political uncertainty that was a worry to the markets at the beginning of the year. President Trump fired F.B.I Director James Comey and this caused significant worries over political interference into the criminal investigation into whether Mr. Trump’s advisors colluded with the Russian government to influence the 2016 election. Speculation was not helped by the untimely hosting of the Russian Foreign Minister the same week and the subsequent accusation that Trump revealed highly classified intelligence during the same meeting. The so called “Trump Trade” which has dominated US markets since the election has arguably turned into the “Trump Fade”. The US dollar has given up all the gains made after the election as hopes of Trump rapidly passing policies that would benefit the US economy, have largely receded. At the turning of month end, Trump withdrew the US from the Paris climate accord, despite the pleas of allied nations. In Asia, China and the US agreed to a 10-point trade package designed to refresh trade relationships between the two countries. China’s President Xi Jimping also held host to 29 national leaders for the “New Silk Road” summit, which Chinese officials argue is focused on mutual economic development rather than enhancing Beijing’s geopolitical power.

In June, the U.S. continued to show signs of a strengthening economy with the equity rally showing little signs of ebbing and the unemployment rate trending down. The Federal Reserve Bank subsequently raised interest rates by 0.25% in June, making this the 3rd rate rise (December, March and June) in 7 months. Preceding this there was no rate rise for a decade. The U.S. is the first major economy moving away from zero interest rates and Quantitative Easing, introduced in many economies in the aftermath of the financial crisis. Big questions remain over the huge increase in dollar denominated debts and whether the FED will be successful in returning to a “business-as-usual” monetary policy.

In Europe, Macron won a solid majority in French assembly elections, giving him considerable power as he embarks on reforms to reinvigorate the economy and restore French influence in Europe. Formal talks began in Brussels on Britain’s withdrawal from the EU. It is unclear how long the initial phase will last but the clock is ticking and with much uncertainty surrounding a plethora of complex issues, negotiations need to progress quickly. The Italian government approved the bailout of Popolare di Vicenza and Veneto Banca. The state will inject €5bn of taxpayers’ money, but they will also offer additional guarantees of up to €12bn to cover losses from the two banks’ bad loans. The market perceived the news to be positive for the sector overall, as it removes the risk of meaningful deposit outflows. However, the deal looks less favorable for the taxpayers, who get only the bad assets of the two banks.

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In Asia, North Korea is back in the headlines after several months of relative calm. North Korea launched a ballistic missile into waters between Korea and Japan, renewing fears of escalating tensions with the U.S and allies. This comes shortly after the death of a US student, Otto Warmbier, who was detained in North Korea for 17 months before being returned to the US in a coma. His death comes at a sensitive time for US policy towards Pyongyang as Donald Trump made North Korea his top foreign policy priority after entering office on warnings over the country's progress on nuclear-armed missiles. Chinese stocks have gained direct entry in MSCI's global benchmark equity index for the first time, marking a milestone in Beijing's efforts to draw international funds into the world's second-largest market. The move means mainland stocks, known as A-shares, will next year be included in MSCI's flagship emerging markets index, although this process is being introduced in phases.

**Market Movements**

Equity markets have continued into Q2 with an extension of the broad-based rally seen in Q1. Developed market equities all performed well with Europe leading the pack (S&P500 +3.1% Q2, +9.3% YTD, FTSE100 +4.7% Q2, +10.3% YTD, Euro STOXX +7.1% Q2, 16.1% YTD, all total return in USD). Emerging market equities (MSCI EM +6.4% Q2, +18.6% YTD) and Asian equities (MSCI AC Asia-Pac ex Japan +6.3% Q2, +20.1% YTD) have continued to rally after recovering from weaker performance in late 2016.

And the sectors that did well this quarter (Information Technology, Health Care, Financials and Industrials) and lagged (Energy) the markets this quarter broadly mirrored those of last quarter. Health Care and Financials saw a recovery in May and June, whereas Information Technology reversed some gains in June. The Financials sector got a boost as the big U.S. banks passed their stress tests and announced a return to large dividend payments (which had been curtailed post the financial crisis) which the market took positively. The Information Technology sector has seen several short-term sell-offs over the past few months. Rationale for the sell-offs have been inconsistent, with market commentators pointing to profit-taking or negative analyst reports on the sector spurring a knee jerk reaction in the markets. The upcoming earnings season will be closely watched by the markets for evidence of whether the technology sector will deliver on the rally seen in the first half of this year or begin to slow.

**Portfolio update**

Chart 1 shows the over and underweight positioning of the fund by sector. In terms of sector positioning our overweight relative to the benchmark in Information Technology (approximately 35% overweight as at 06.30.2017) and our underweight positioning in Energy (about 3% underweight) and Telecommunications (about 3% underweight) were the largest positives. The largest sector underperformance was in Financials (representing approximately 11% underweight versus the benchmark) and Health Care (approximately 4% underweight). Although in absolute terms our financial stocks added to fund performance in the quarter. The chart below shows the sector breakdown of the fund in absolute terms and relative to the benchmark to highlight any over/underweights.

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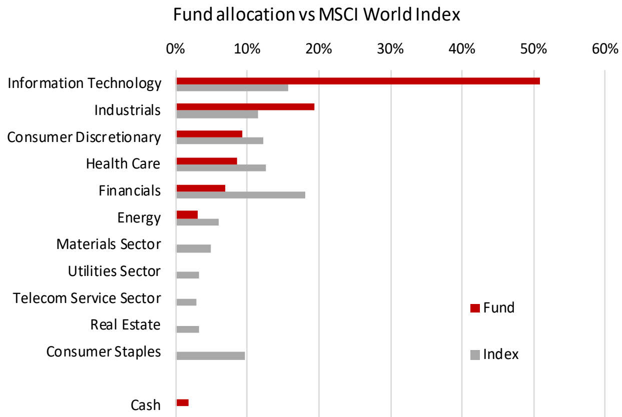


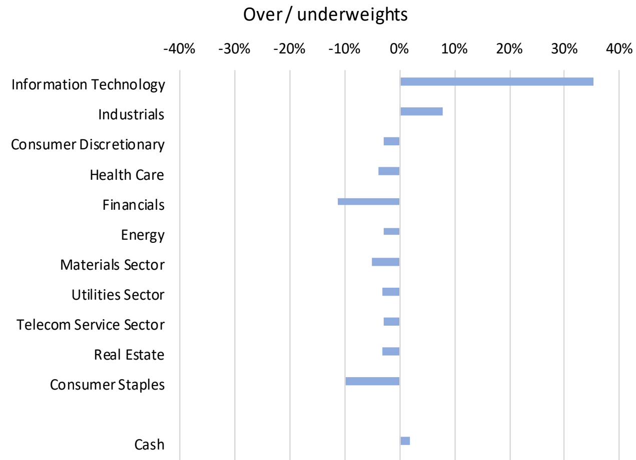
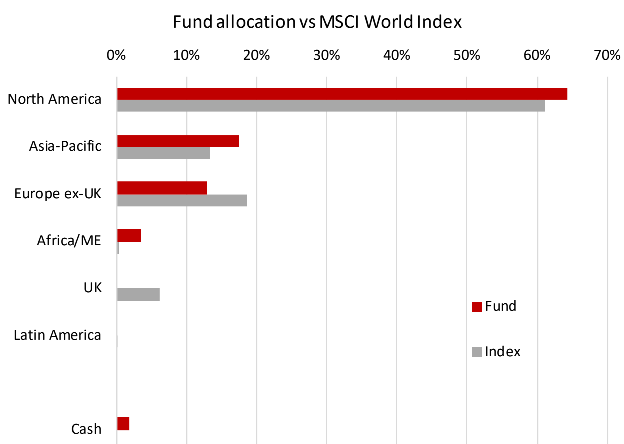




**Chart 1: Sector breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

In terms of geographic exposure, the largest difference between the fund and the benchmark is our exposure to the US (as measured by country of domicile). The fund had about 64% weighting to the US (as at the 06.30.2017) which compares to the index at about 61% - so a 3% overweight position. This made no discernible difference from a performance perspective.



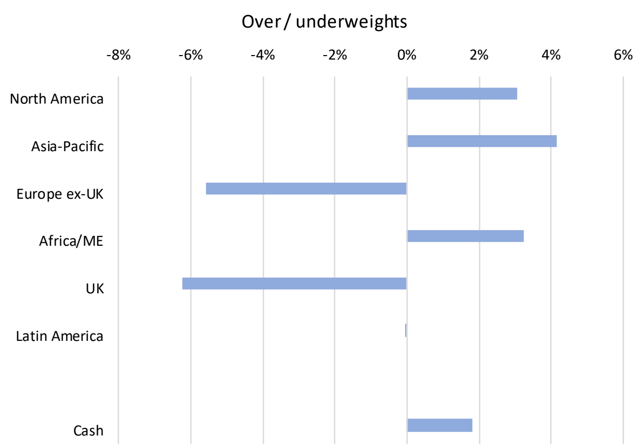




**Chart 2: Geographic breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

There was no discernible outperformance of mid- to large caps versus small caps over the quarter.

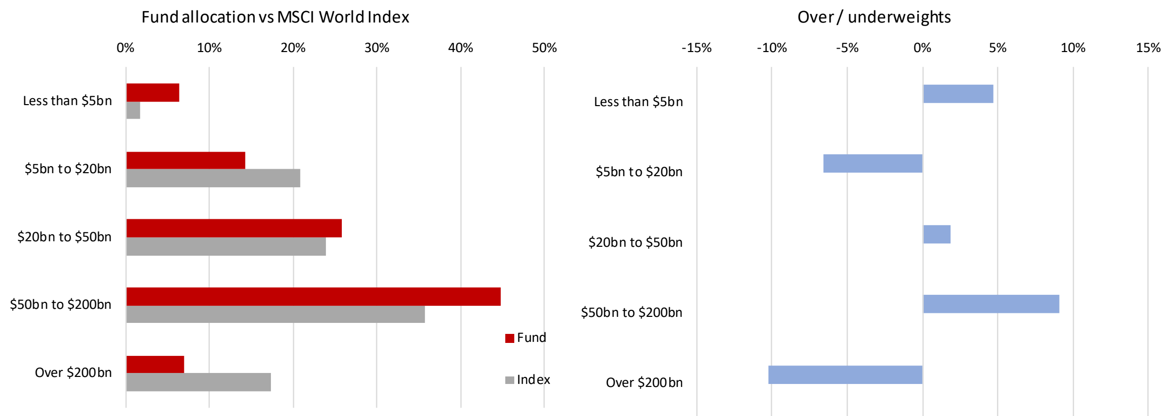



**Chart 3: Market capitalization breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

Individual companies that performed well over Q2 were NVidia (up 32.8% total return in USD), PayPal (up 24.8%), Catcher Technology (up 21.1%), New Oriental Education (up 16.7%) and WisdomTree (up 13.0%).

NVidia began the quarter by selling off a little in April, ending the month down 4.3% (total return in USD), off the back of a couple of neutral or negative analyst reports which appeared to spur some profit taking. In our view this was pre-emptive and we were still happy with Nvidia based on the process and metrics we employ in the Guinness Atkinson Global Innovators Fund, focusing on innovation, quality and growth. On the 9th May Nvidia released its financial results for the first quarter ending 30th April 2017, surprising the market consensus by 4.8% on an EPS basis for the quarter. Revenue was up 48% from a year ago and broad growth was seen across all platforms. One area that did particularly well was the datacentre computing business, utilising Nvidia's graphical processing unit (GPU) technology. This technology is suited to artificial intelligence and parallel computing processes, which are becoming increasingly important as more of the world's computer scientists, internet giants and start-ups engage in artificial intelligence. Nvidia is also well positioned to take advantage of growth in autonomous driving systems by providing the computer platform to power advances in autonomous driving. In May we saw a collaboration between Nvidia and Toyota to accelerate their introduction of autonomous cars. The market received this news well and further cements Nvidia's position in one of many growing markets. There had been worries that Nvidia's core gaming segment would weaken but results were surprisingly resilient and actually continued to grow.

PayPal has been gaining in online-payment share as its newer rivals in the digital wallet arena (Apple, Visa to name two) struggle to gain significant traction. PayPal has focused on adding services and improving the user experience. There are still some headwinds to be aware of such as Amazon offering its own digital wallet and not adding PayPal. However, PayPal processed less than 20% of 2016 global ecommerce retail sales (as estimated by eMarketer) indicating there is significant potential for further growth. Mobile payments have seen strong growth, especially with the adoption of one-touch payments. PayPal's Braintree, its mobile and web payment system for ecommerce companies, is also expanding its payment types and product offerings. At the end of April, PayPal's earnings beat the market consensus by 6.3% on an EPS basis for the quarter. Sentiment subsequently improved through May and June, and the stock ended the quarter up 24.8%.

Catcher Technology, has shown strong performance, ending the quarter up 21.1%. The metal casings supplier, whose key customer is Apple, has stated the expectation of a strong second half of the year due to increasing orders from existing and new clients. This was supported by strong May growth in year on year sales. These strong sales were supported by orders from the U.S. and South Korea. Catcher's investment in production capacity has increased to prepare for an expected rise in demand over the next two years.

New Oriental Education, a China-based language-training and test-preparation services provider, saw strong fiscal Q3 results reported at the end of April, though guidance was cautious. Early June saw New Oriental Education reach a record share price from improved sentiment as it expanded into content creation for children, but subsequently the share price gave up their gains later in the month. Despite this, New Oriental Education ended the quarter up 16.7%

WisdomTree, an ETF provider, started the quarter with a lacklustre performance because of the expectation of weaker net flows in Q2 2017. This expectation improved over May with more positive net flows expectations. In June, WisdomTree announced changes to its ETF family, with some older funds closing and new smart beta funds opening. Some performance can also be attributed to the overall improved Financial sector sentiment. WisdomTree ended the quarter up 13.0%.

AAC Technologies

AAC Technologies, the Chinese acoustic component manufacturer for smartphones, had gained early in the quarter as Apple prepared to launch the iPhone's next iteration later this year. In early May, it was subject to a short seller's report by Gotham City Research, questioning the company's profit margins, accounting practices and intercompany dealings. AAC 'vigorously denied' the allegations made in the report and many research analysts disagreed with the assumptions made in the short seller's initial report. After the publishing of a second longer report from Gotham, the stock fell further and was suspended. AAC again refuted the allegations stating the report was not true or accurate. When the stock started trading again it rallied strongly as the market assessed the company's response to the allegations. Over the quarter the stock was up +8.4% (total return in USD).

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The following companies had weaker performance over Q2. Schlumberger has seen negative revisions to Q2 EPS and to full-year 2017 and 2018 weighing adversely on shares. Generally, the headwinds affecting the energy sector are not subsiding. Several analysts downgraded Schlumberger over the quarter as the oil service growth outlook slowed. Schlumberger ended the quarter down 15.1% (total return in USD).

Cisco reported earnings in May, which came in lower than expected, and the share price subsequently unwound the gains made in the previous quarter. Cisco is in the middle of making the transition to a software and recurring revenue business model and in late June, Cisco lowered sales and earnings forecasts. For the quarter Cisco's total return was down 6.6%.

FANUC (down 6.0%), a Japanese manufacturer of factory automation systems and robots, in April gave disappointing profit guidance for 2017 and 2018. There were also doubts about increasing fixed costs and efforts to strengthen the robot division. The volatility of the stock will be in some part due to the currency effect of the yen versus the dollar.

**Changes to portfolio**

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

**Positioning**

The below chart highlights the geographic weighting of the portfolio both in terms of where the companies held in the portfolio are domiciled and where their revenues come from – which can often be more illuminating.

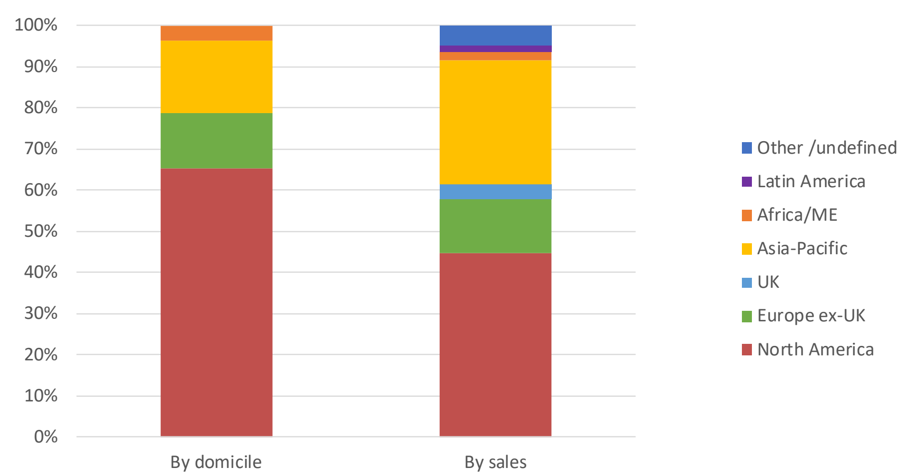


**Chart 4: Geographic breakdown of the fund. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

We would note two main points; (i) the lower exposure to the US the fund has when considered by revenues (approximately 44%) versus by domicile (approximately 64%). This is because some companies are domiciled in the US but have large global exposure (such as Qualcomm); and (ii) the larger exposure to Asia by revenues (about 29%) than the equivalent statistic as measured by domicile (about 17%).

In terms of sector weightings, the fund has zero weighting to Utilities, Materials, Telecoms, Consumer Staples and the newly created Real Estate sector (which previously was included in financials but is now split out as a standalone sector by MSCI). The largest overweight positions are to Information Technology and to Industrials. With regard the large overweight position to Information Technology it is worth noting that this is split between the three different subsectors of semiconductors (approximately 16% of portfolio today), software and services (about 18%), and technology hardware (approximately 17%).

To put this data into a historical context (for the fund at least) the below two charts show how the exposure of the fund has evolved since we launched the strategy back in 2003.

From a sector perspective, we made no changes last quarter therefore the exposure of the fund to each sector has remained broadly unchanged.

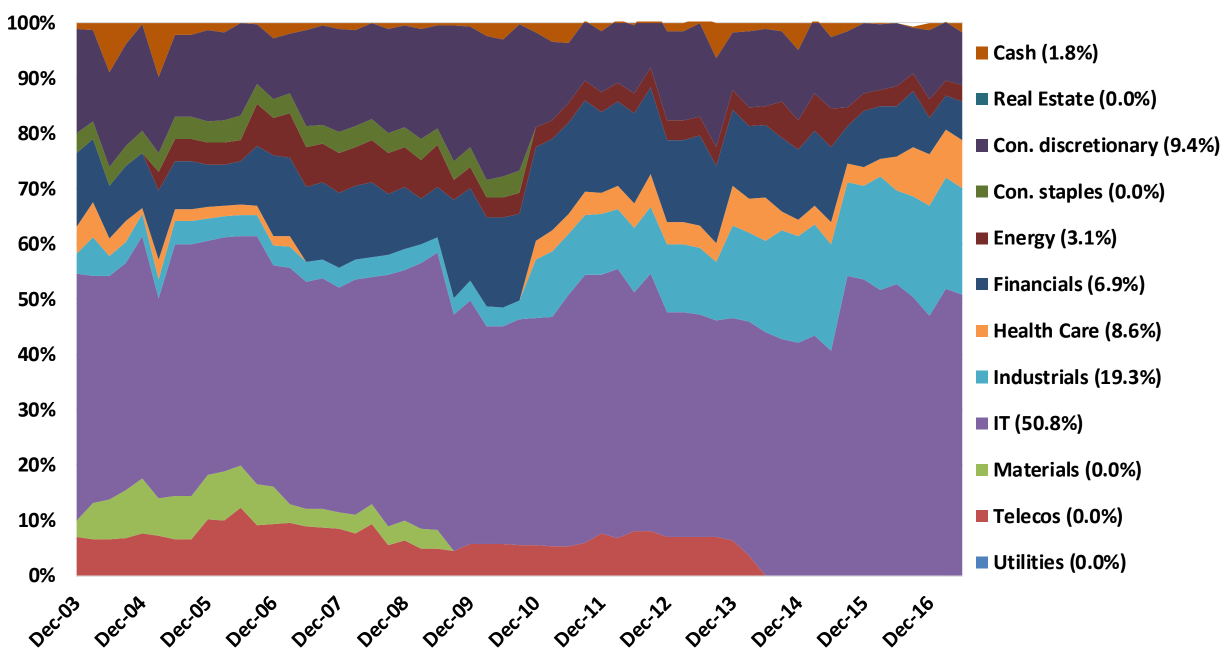


**Chart 5: Sector breakdown of the fund since launch. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

From a geographic point of view, we made no changes last quarter therefore the exposure of the fund to each geographic region has remained broadly unchanged.

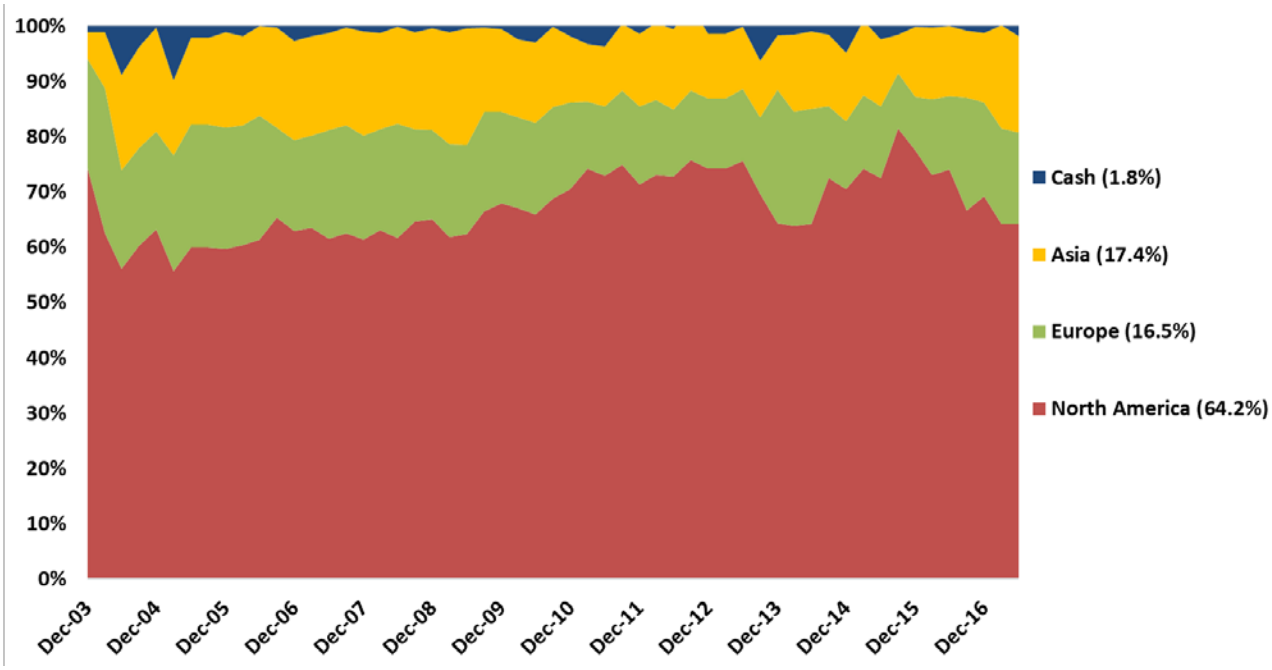


**Chart 6: Geographic breakdown of the fund since launch. Guinness Atkinson Asset Management, Bloomberg (data as at 06.30.2017)**

**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 | 5% | 8% |
| **Quality** | CFROI (2016) | 18% | 11% |
| | Weighted average net debt / equity | -9% | 116% |
| **Growth (& valuation)** | Last 3 year sales growth (annualised) | 11% | 4% |
| | Estimated earnings growth (2018 vs 2017) | 11% | 10% |
| | FCF yield | 5.6% | 4.8% |
| | PE (2017e) | 17.9 | 17.3 |
| **Conviction** | Number of stocks | 30 | 1650 |
| | Active share | 94% | - |

**Chart 7: Portfolio metrics versus index. Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (data as at 06.30.2017)**

*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 or call (800) 915-6566.*

Innovation is hard to define and ultimately is quite subjective, but we attempt to quantify this metric at the portfolio level by considering the metric of research and development spend as a proportion of sales. This shows at least what level, relative to total sales, a business is investing in its research and development and thus ultimately its intellectual property. We also look at capital expenditure as a percentage of sales to gauge how capital intensive a company is. We ideally are looking for companies that have lower capital requirements and are thus potentially better placed to grow and grow profitably. And as the table above shows at the portfolio level the fund owns companies that invest a higher proportion of their sales into R&D than the market and that have significantly lower ongoing capital requirements.

When we use the term ‘quality’ we are essentially assessing two main financial characteristics that we want to see in any company we might invest in – regardless of how innovative it is or how fast it is growing. These two simple characteristics are a high return on capital (and specifically above the cost of capital) and a good balance sheet. It is pleasing to see that the portfolio significantly outpaces the index on both these fronts. The cash flow return on investment is over 60% higher (18% versus 11%) and in aggregate the portfolio is trading with a net cash position of 9%, versus a net debt of 116% for the benchmark.

In terms of growth we aim to provide a ‘good’ or ‘reasonable’ level of earnings growth from the portfolio. We try to avoid chasing companies with very high growth expectations as they are more than likely to disappoint and can often be accompanied by high valuations. Today the expected year-on-year earnings growth of the portfolio is around 11%, which is approximately 1% higher than the market. However, because of the superior companies we are investing in we believe we stand a better chance of achieving this expected growth. We also note the historic revenue growth achieved by companies held in the portfolio today is almost three times higher than that achieved by the benchmark.

We have always attempted to employ a valuation discipline to stock selection as we do not want to pay up for future growth because of its illusive nature. We therefore include a simple forward PE metric in the above table to highlight that the fund is trading only at a small premium to the broad market today. Yet on a free cashflow (FCF) yield basis the fund is 17% higher than the broad market.

We continue to hold 30 stocks, all equally weighted. This means the fund is genuinely index agnostic, as the 94% active share illustrates.

Looking more closely at the margins of the companies held in the portfolio, Chart 8 highlights the increased positive skew of the EBIT margin of the companies we hold versus those in the benchmark. There is a distinct peak at 30% EBIT margin with a higher % of companies above this point than the benchmark and far fewer ‘low margin’ businesses. The median EBIT margin of the companies held in portfolio is 22% versus the benchmark median of 14%.

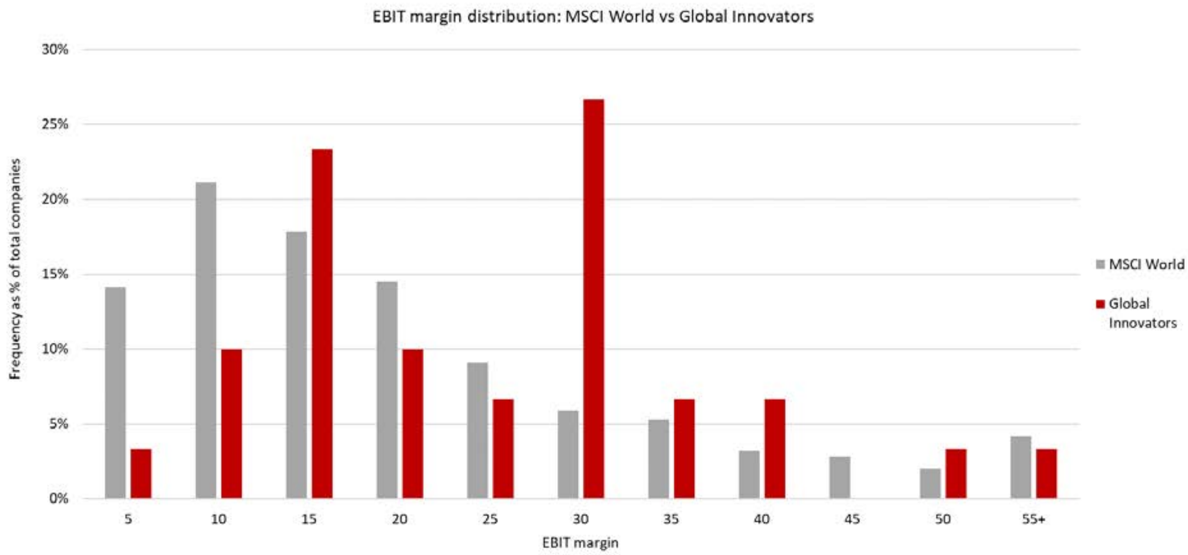


**Chart 8: Distribution of EBIT Margin by frequency as a % of total companies. Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (as at 05.16.2017)**

Chart 9 and 10 shows the EBIT margin versus the cashflow return on investment (CFROI) of the Global Innovators Fund and the individual sectors of the MSCI World. Chart 10 breaks out the Global Innovators Fund into the individual companies that are held in the fund. Of note should be the position of the overall fund, towards the higher range of both EBIT margin and CFROI. This is indicative of our approach of selecting not only high margin companies, but high quality companies too. It also highlights that certain sectors such as Energy, Materials, Utilities and Telecom Services generally have lower EBIT margin, and our fund is generally underweight these sectors. Whereas, the Information Technology sector is at the higher range of both EBIT margin and CFROI.

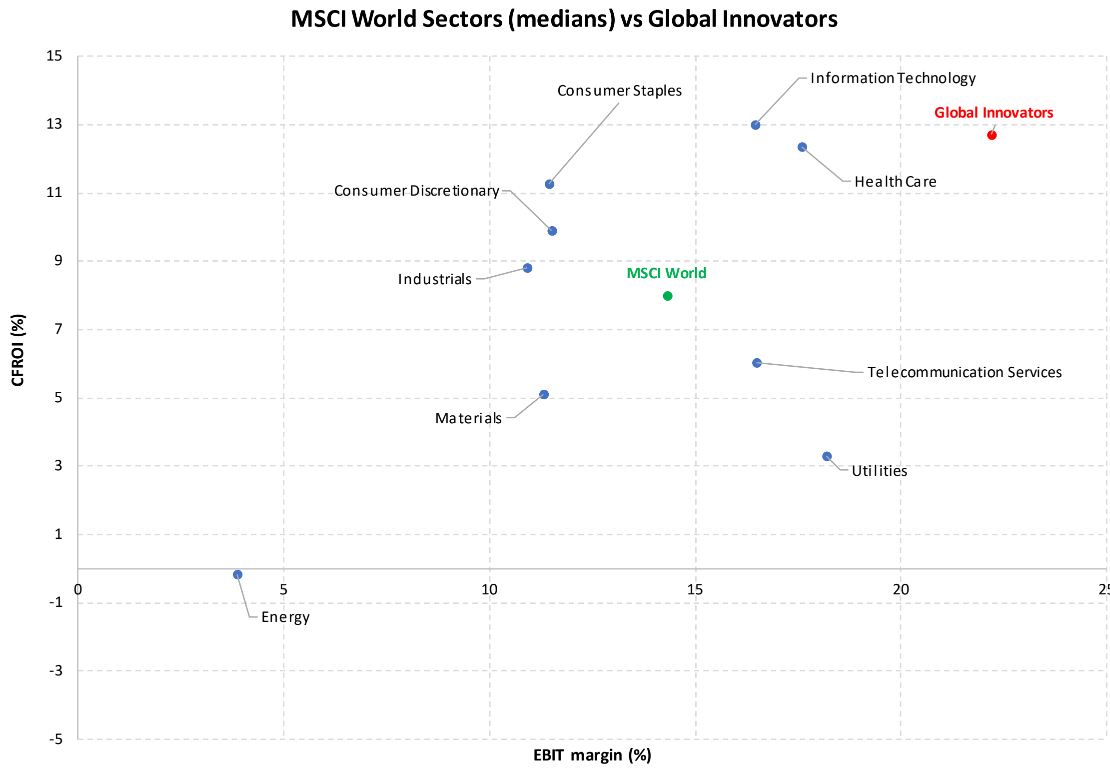


**Chart 9: EBIT Margin versus CFROI for the Global Innovators Fund and the individual sectors of the MSCI World (all medians, and excluding Financials and Real Estate). Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (as at 05.16.2017)**

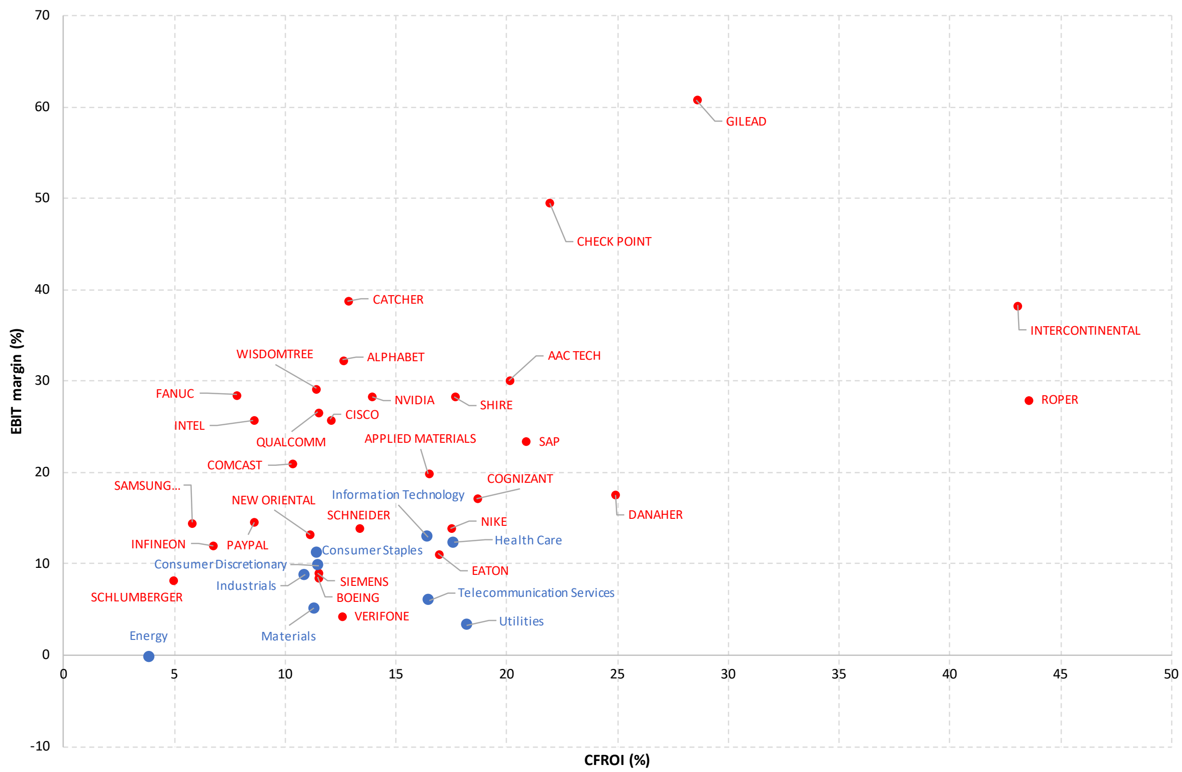


**Chart 10: EBIT Margin versus CFROI for the companies in the Global Innovators Fund and the individual sectors of the MSCI World. Guinness Atkinson Asset Management, Credit Suisse HOLT, Bloomberg (as at 05.16.2017)**

**Outlook**

Generally speaking, the fund has outperformed in periods of rising markets, and underperformed slightly in periods of falling markets. The fund is orientated towards growth but not at any price. Therefore, the recent outperformance is what we might have expected as the more cyclical parts of the market, and in particular Information Technology, have performed well.

As we noted above, and as a result of the outperformance in the first quarter the fund is now trading at a small 3.6% premium to the broad market on a PE ratio basis (fund 17.9x 2017 expected earnings vs MSCI World Index 17.3x) having been trading at a discount for much of 2016. The longer-term premium of the fund versus the broader market has been in the 10-20% range therefore we still see the portfolio as offering good value relative to the market today (approximately 3.5%). However, when we look at the portfolio on a free cash flow yield basis the portfolio is very attractively valued relative to the index (fund 5.6% vs MSCI World Index 4.8%).

Thank you for your continued support.

**Portfolio managers**
Dr Ian Mortimer, CFA
Matthew Page, CFA

**Analysts**
Joshua Cole
Sagar Thanki

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GUINNESS ATKINSON FUNDS

## Performance

In June, the Guinness Atkinson Global Innovators Fund produced a total return of 0.50% (investor class) versus the MSCI World Index return of 0.42%. The fund therefore outperformed the index by 0.08%.

| as of 06.30.2017 (in USD) | YTD | 1 year | 3 years annualized | 5 years annualized | 10 years annualized | Since inception annualized |
|---|---|---|---|---|---|---|
| Global Innovators, Investor Class[1] | 16.60% | 30.77% | 8.08% | 17.13% | 8.15% | 7.63% |
| Global Innovators, Institutional Class[2] | 16.72% | 31.08% | 8.22% | 17.22% | 8.19% | 7.65% |
| MSCI World Index | 11.01% | 18.89% | 5.87% | 12.05% | 4.60% | 5.58% |

| as of 03.31.2017 (in USD) | YTD | 1 year | 3 years annualized | 5 years annualized | 10 years annualized | Since inception annualized |
|---|---|---|---|---|---|---|
| Global Innovators, Investor Class[1] | 9.28% | 20.25% | 8.33% | 14.04% | 9.01% | 7.36% |
| Global Innovators, Institutional Class[2] | 9.32% | 20.54% | 8.44% | 14.12% | 9.04% | 7.37% |
| MSCI World Index | 6.53% | 15.45% | 6.15% | 10.03% | 4.85% | 5.42% |

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

Institutional class (GINNX) Inception 12.31.2015 — Expense ratio* 0.99% (net); 1.38% (gross)

*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 or call (800) 915-6566.*

**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 reduce its fees and/or pay Fund 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, 2018. To the extent that the Advisor waives its fees and/or absorbs expenses to satisfy this cap, it may seek repayment of a portion or all of such amounts at any time within three fiscal years after the fiscal year in which such amounts were waived or absorbed, subject to the 0.99% for the Institutional class and 1.24% for the Investor class expense cap.

Total returns reflect a fee waiver in effect and in the absence of this waiver, the total returns would be lower

**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 06/30/17, are:

| | |
|---|---|
| 1. Samsung Electronics Co Ltd | 3.88% |
| 2. PayPal Holdings Inc | 3.80% |
| 3. Catcher Technology Co Ltd | 3.80% |
| 4. NVIDIA Corp | 3.75% |
| 5. Boeing Co/The | 3.75% |
| 6. Cognizant Technology Solutions | 3.71% |
| 7. AAC Technologies Holdings Inc | 3.68% |
| 8. Check Point Software Technologies Ltd | 3.55% |
| 9. Wisdom Tree Inv. Inc | 3.53% |
| 10. SAP SE | 3.47% |

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

Cash flow return on investment (CFROI) is a metric developed by Credit Suisse HOLT that seeks to calculate cash flow return on investment adjusted for inflation and on a standardized global/industry basis.

In accounting and finance, EBIT is earnings before interest and taxes. It is a measure of a firm's profit that includes all expenses except interest and income tax expenses. It is the difference between operating revenues and operating expenses.

Opinions expressed are subject to change at any time, are not guaranteed and should not be considered investment advice.

*This information is authorized for use when preceded or accompanied by a prospectus for the Guinness Atkinson Global Innovators Fund. The prospectus contains more complete information, including investment objectives, risks, charges and expenses related to an ongoing investment in The Fund. Please read the* *prospectus carefully before investing. The prospectus may be obtained by calling 800-915-6566 or visiting* https://www.gafunds.com/resource-insight-center

**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.

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