Guinness Atkinson
Global Innovators Fund Update
October 2016

GUINNESS ATKINSON FUNDS

Quarter in review

Despite world equity markets finishing almost flat over the period we witnessed significant volatility in share prices over the third quarter of 2016.

In July the market had to digest the surprise vote for Brexit in the UK post the referendum on EU membership at the end of June. After an initial sell off equity markets rallied significantly through the end of the month, with the MSCI World Index closing up over 4% in July.

In August equity markets appeared somewhat subdued with the MSCI World Index up only 0.14% (in USD) over the month. The VIX (or so called 'fear index') also remained at low levels suggesting market participants were less concerned with the potential for a big sell off in US equities. However, as we noted in previous updates the overall market performance belied quite large divergences in individual sector performances; financials, IT, materials, and industrials led the market and utilities, healthcare, telcos, and consumer staples lagged. This was in stark contrast to the start of the year when the more 'defensive' sectors outperformed as markets worried about the prospects for Chinese growth. In a similar vein developed markets underperformed emerging markets in August, continuing a trend that had begun to evolve since the end of May.

September followed a similar pattern to that seen in August. Developed market equities lagged emerging market equities and Asian equities. And the sectors that led and lagged the markets in August (as noted above) broadly continued to do so in September.

The performance of the energy and materials sectors, and energy in particular, coincided with better prospects for commodity prices in general and specifically for oil following perceived collaborative action on supply curtailments by OPEC members. The relative underperformance of Reits, telcos, healthcare, and staples also coincided with a growing assumption that more accommodative monetary policy from central banks, most notably the Fed and the European Central Bank (ECB), may not come to pass which may make the high dividends from these types of business less attractive/necessary to investors in the medium to long term.

The notable exception of the sector leaders from August continuing to outperform in September was the financials sector. Fears surrounding Deutsche Bank following the record Department of Justice settlement claim for misselling residential mortgage backed securities in the US combined with the emergence of a Wells Fargo probe into fake customer account openings to rattle the sector.

Performance drivers

In terms of positioning the fund benefitted significantly from the sector over- and underweights versus the index in the quarter.

Over the period the fund retained its zero weighting to all of consumer staples, telcos, utilities, materials, and real estate (which previously was included in financials but is now split out as a standalone sector by MSCI). The only one of these five sectors to outperform the overall market in the quarter was materials whereas the other four made up the worst performing sectors in the Q3 – meaning our zero weighting to those added helpfully to performance in the period.

The two sector overweights in the portfolio were industrials and information technology, both of which outperformed the benchmark.

IT was, in fact, the best performing sector in the MSCI World in the third quarter and rallied 13.1% (in USD) over the period. This compares to the poorest performing sector - utilities - which was down 3.3%; a 16.4% divergence in just three months. The fund had a c.47% weighting to IT on average over the quarter which contributed significantly to the overall performance of the fund in the period.

In terms of geographic exposure the largest difference between the fund and the benchmark was the exposure to Western Europe (as measured by country of domicile). The fund over the quarter had on average a c.9% weighting to Western Europe which compares to the index at c.24% - so a 15% underweight position. This made no discernible difference from an index-relative performance perspective in the quarter, however.

The largest geographic overweight remains North America which was on average a c.13% larger position than the benchmark (c.74% versus c.61%). Again this made no discernible difference from a performance perspective in the quarter.

Small caps outperformed large caps which would generally not be beneficial to the fund, as the fund only invests in mid- to large-cap companies. There was a (small) bias towards value stocks versus growth stocks but this likely did not affect performance in a significant way.

Individual companies that performed well over Q3 were Nvidia (up 46.0% in USD), State Street (up 29.9%), Qualcomm (up 28.9%), Applied Materials (up 26.2%), and SAP (up 22.2%).

Companies that had weaker performance over Q3 were Cognizant (down 16.6% in USD), Verifone (down 15.1%), Tegna (down 5.0%), Gilead (down 4.6%), and Oracle (down 3.7%).

Changes to portfolio

In the quarter we made four changes to the portfolio; we sold positions in Oracle and Tegna and initiated new positions in Infineon and Shire.

Oracle has been a long tem holding in the strategy, having been in the portfolio since the end of 2003. The total return of the stock over our holding period was 222% (in USD), versus the MSCI World Index return of 132%. A significant 2.8% annualised return difference. Over the long period we held the stock the earnings improved by 441%, which came through both net income growth (c.325%) and also a reduction in the shares outstanding (c.21% reduction). The PE multiple contracted significantly, however, reducing by approximately 46% - which in our opinion reflects the maturity of the business and its ability to grow cash flows in the future. The contribution from shareholder returns in terms of dividends was modest, as the company only began to pay a dividend in 2009.

Today we see the company's reasonable P/E valuation multiple as reflective of the lower prospects for growth and this combined with the declining return on capital suggests the business is struggling to find good projects for reinvestment of capital. The bull case is that the company is undergoing a period of restructuring as it transitions from a license-model to software as a service (SaaS) model and that the higher margins afforded to the restructured segments will provide an uplift to both earnings and the multiple. We fear that this transition may be more difficult than management suggests and despite the company's market share and large size we see increased competition in its end markets, especially in the database segment. We therefore felt the prospects for short to medium term growth were

potentially limited and that the reasonable valuation was a fair reflection of this, and that there were better opportunities elsewhere.

Tegna has been held in the strategy since October 2013, originally through the Gannett business which subsequently split into Tegna and Gannett(NewCo) in June 2015. Gannett(NewCo) took on the publishing business and Tegna the broadcast television and digital media businesses. Part of the rationale of this split was that the faster growth, and more profitable, Tegna could command a higher multiple and ultimately we took the same view – selling our holding in Gannett(NewCo) and increasing our stake in Tegna to a full position in the portfolio.

The market rewarded the reorganisation of the business leading up to the June 2015 split, but subsequently Tegna has disappointed somewhat with recent quarterly earnings below expectations. The company has also announced that one of its main digital media assets, cars.com, will be spun out in 2017 and that careerbuilder.com is under strategic review. We perceive the broadcast television model to be under potential long term threat, and the fact that the company is struggling despite a 'bumper' year of the Olympics and a presidential election makes us question the long term opportunities for the business. The very low P/E multiple (less than 10x 2016 expected earnings) does not, in our opinion, make up for the potential for near term earnings declines and the long term headwinds in the sector more generally. Over our holding period (adjusting for the split in June 2015) we calculate the position made a small loss versus the MSCI World.

Shire is a business we have held in the strategy before; from October 2013 to August 2014. We sold previously as the share price appreciated dramatically when a bid from Abbvie was tabled for the company. Post our sale the bid was ultimately withdrawn by Abbvie - due to the growing backlash against so-called 'tax inversions' at that time (Abbvie would have been able to utilise Shire's Dublin domicile to reduce significantly the overall group tax rate). We repurchased shares in Shire in September 2016.

In the time between the failed Abbvie bid and today Shire has made a number of notable transactions itself; NPS and Dyax in 2015 and the transformation deal for Baxalta in 2016. In doing so the company has reduced its dependence on its legacy drugs, created the largest biopharma company focussed on rare diseases, and created a strong future pipeline of new drugs. We were attracted back to the company based on the fact it had increased its return on capital every year for the last three years, its potential ability to protect margins with its new focus and specialization, and the fact we could purchase shares at reasonable valuations that were trading at the time below the average five year multiple and below the broad market.

Infineon is a new holding for the fund. The euro17billion market cap company is listed in Germany and manufactures and designs semiconductors. Originally part of the Siemens group, it was spun out as a separate entity in 1999. The stock price has been strong over the past year but we still see good opportunities for growth. As of September 19, 2016 the company has a number 1 or number 2 position in very fast growing markets, and especially in the automotive sector where we see significant prospects for future growth through advanced driver assistance to completely autonomous vehicles. Each stage in between this transition will require a higher and higher density of chips per car to enable the increased functionality and safety features required.

Infineon trades at the high end of P/E valuation multiples we are comfortable with as of September 30, 2016, it is around 20x forward earnings) and we recognise it is a cyclical business but we see high operating margins, improving returns on capital and the prospect of growing economic profits through asset growth. When combined with a secular growth trend supporting the business more broadly we can see earnings growth at the ~15% compound annual growth rate level over the next five years which, if achieved, would certainly justify the current price to us. We also recognise that we have not factored in any significant multiple rerating into our analysis of potential future returns.

Positioning

In terms of sector weightings the fund continues to have a zero weighting to utilities, materials, consumer staples, telcos, 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 IT and to industrials.

The chart below shows the sector breakdown of the fund in absolute terms and also relative to the benchmark to highlight any over/underweights.

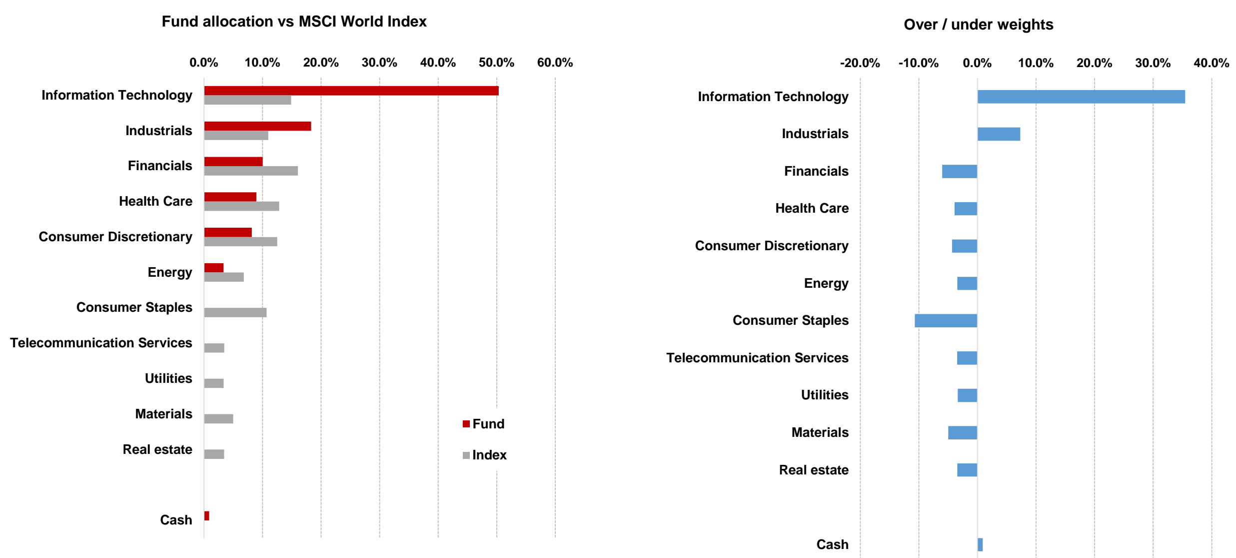

Chart 1: Sector breakdown of the fund versus MSCI World Index. Guinness Atkinson Asset Management, Bloomberg (data as at 9.30.2016)

With regard the large overweight position to IT it is worth noting that this is split between the three different subsectors of semiconductors (20.5% of portfolio today), software and services (19.4%), and technology hardware (11.2%).

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 the recent changes made to the portfolio have reduced consumer discretionary and increased healthcare. The reduction in IT exposure over the quarter (purple block) reflects a rebalancing of the portfolio, as some of the positons owned in IT had been outperforming significantly through the second quarter and therefore their relative size in the portfolio had increased. We took the opportunity through the third quarter to take some profits in these companies and reinvest the proceeds into companies held that had underperformed.

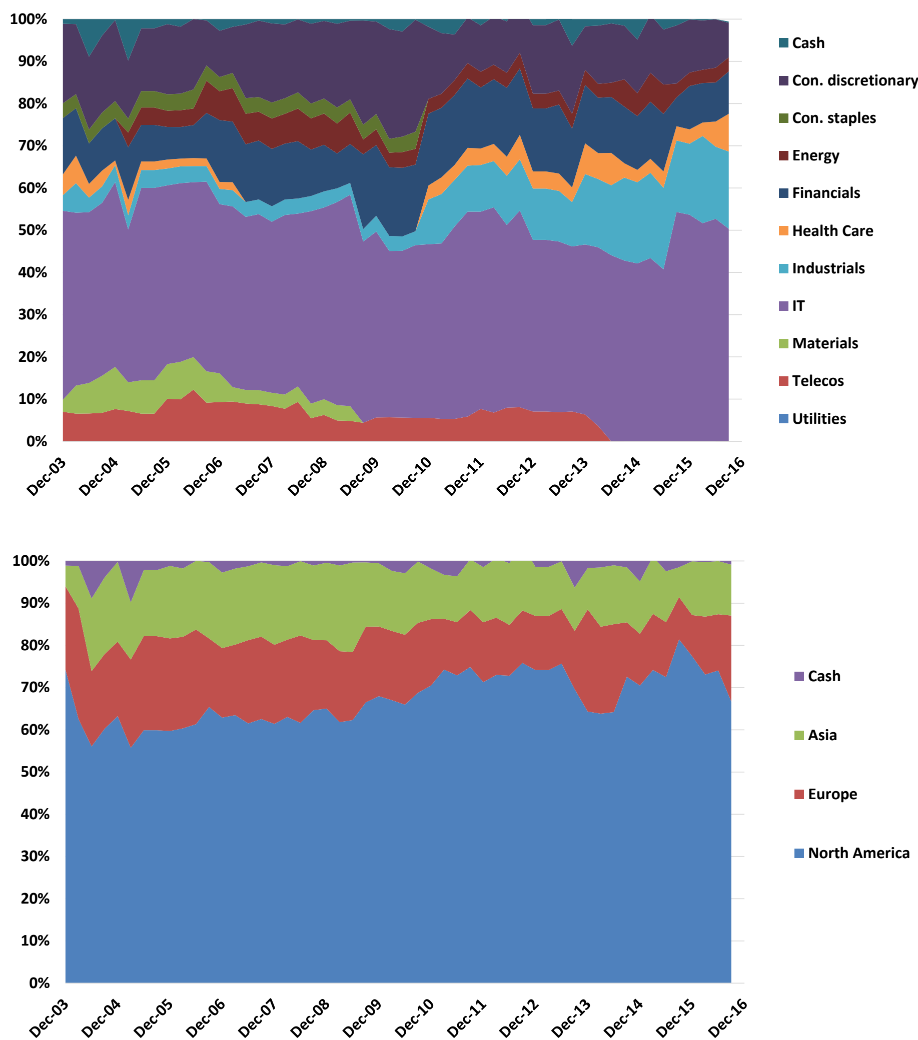

Chart 2: Sector and geographic breakdown of the strategy since launch. Guinness Atkinson Asset Management, Bloomberg (data as at 9.30.2016)

From a geographic point of view the recent changes to the portfolio reduced the North American exposure of the fund by c.6.6% and increased the European exposure by an equivalent amount. This brings the North American exposure of the portfolio back towards the average of c.60% the strategy has had over the past 12 years.

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Outlook

In our conclusion of the previous quarterly update for the fund we wrote:

"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. The recent underperformance is therefore somewhat expected as the more defensive parts of the market (such as consumer staples, utilities, etc) have outperformed and these are parts of the market the fund has relatively low exposure to.

This is reflected in valuations, however, and the fund at the end of the quarter was trading on a forward PE multiple of 15.5X, which is a 4% discount to the broader market. Historically the fund has traded on a premium to the market so we believe this is a reflection of what the market has rewarded (and overlooked) over the past 12-18 months. Recent good performance in fund holdings that have been underperformers over that period (NVIDIA, Applied Materials, Samsung Electronics, Oracle, Cisco for example) may be an indication that the market is starting to reassess the value these types of business, particularly versus the more expensive high growth companies that did so well during 2015. If this is the case then we believe the fund is well positioned to take advantage of that trend."

One quarter does not represent a trend, and we are well aware of how fickle the market can be, but it is encouraging that the recent performance of the fund has been so strong and that our faith in the companies we held through 2015 and the first half of 2016 has started to be rewarded.

We also note that despite the outperformance in the third quarter the fund still trades at a 3.7% discount to the broad market on a PE ratio basis (fund 16.8x 2016 expected earnings vs MSCI World Index 17.4x) despite the expected year-on-year earnings growth of the overall portfolio standing at 12.5% (2017 on 2016).

We thank you for your continued support.

Matthew Page and Ian Mortimer

Portfolio Managers

Performance

In the month of September the fund (investor class) was up 0.84% versus the benchmark MSCI World Index up 0.57%. The fund therefore outperformed the index by 0.27% over the month.

Over the third quarter as a whole the fund was up 9.76% versus the benchmark MSCI World Index up 4.99%. The fund therefore outperformed the index over the quarter by 4.77%.

Having started the year underperforming the broader market the large outperformance in the third quarter by the fund now places it ahead of the index year-to-date. Year-to-date the fund is now up 7.18% versus the MSCI World Index up 6.06%. The fund is therefore ahead of the index by 1.12% for the year.

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as of 9/30/16	Q3 2016	1 year	3 years annualized	5 years annualized	10 years annualized	Since inception annualized
Global Innovators, Investor Class[1]	9.76%	15.29%	9.50%	17.21%	8.67%	6.90%
Global Innovators, Institutional Class[2]	9.85%	15.53%	9.57%	17.26%	8.69%	6.92%
MSCI World Index	4.99%	12.01%	6.46%	12.28%	5.10%	5.09%

Investor class (IWIRX) Inception 12.15.1998 — Expense ratio* 1.24% (net); 1.27% (gross)

Institutional class (GINNX) Inception 12.31.2015 — Expense ratio* 0.99% (net); 1.07% (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. Total returns reflect a fee waiver in effect and in the absence of this waiver, the total returns would be lower. For most recent month-end and quarter-end performance, visit http://www.gafunds.com/GIF_performance 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.

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

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.

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

Price to Earnings Ratio (P/E) is a valuation ratio of a company's current share price compared to its per-share earnings. Calculated as: Market Value per Share / Earnings per Share (EPS)

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 VIX, or volatility Index, shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking, is calculated from both calls and puts, and is a widely used measure of market risk, often referred to as the "investor fear gauge."

The compound annual growth rate (CAGR) is the annual return calculated based on each year's previous balances where each previous balance includes both the original principal and all interest accrued from prior years.

One cannot invest directly in an index.

Basis Points (BPS) is a unit that is equal to 1/100th of 1%.

Top 10 Fund Holdings as of 9/30/16

Qualcomm Inc	4.32%
Taiwan Semiconductor Manfacturing Co Ltd – ADR	4.18%
NVIDIA Corp	4.17%
State Street Corp	4.01%
Intel Corp	3.88%
Siemens AG	3.74%
Applied Materials Inc	3.72%
Eaton Corp PLC	3.64%
PTC Inc	3.63%
Comcast Corp – A Shares	3.60%

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