

Guinness Atkinson
Global Innovators Fund Update
 Annual Review - January 2016



Performance

In 2015 the Guinness Atkinson Global Innovators Fund produced a total return of -3.04%, versus the MSCI World Index return of -0.25%. The Fund therefore underperformed the benchmark by 2.79%.

Performance

as of 12/31/15 <i>inception date:</i> investor class = 12/15/98 institutional class = 12/31/15	1 YR (annualized)	3 YR (annualized)	5 YR (annualized)	10 YR (annualized)	Since inception annualized
Global Innovators Fund, Investor Class	-3.04%	16.61%	12.19%	9.02%	6.78%
Global Innovators Fund, Institutional Class	-3.04%	16.61%	12.19%	9.02%	6.78%
MSCI World Index	5.64%	16.26%	10.94%	6.76%	5.38%

Source: Bloomberg, Guinness Atkinson Asset Management
 Expense Ratio: *Investor Class* = 1.24% (net)*; 1.26% (gross)
 Expense Ratio: *Institutional Class* = 0.99% (net)*; 1.10% (gross)

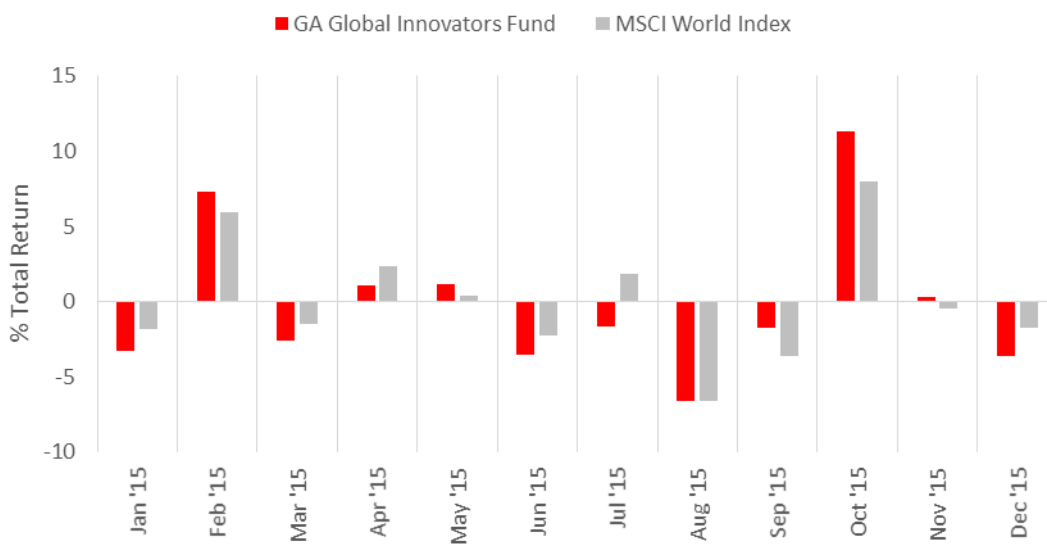
Performance data quoted represent past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. For most recent month-end and quarter-end performance, visit 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).

Review of 2015

2015 was a volatile year, with global equities swinging widely from positive to negative returns from one month to the next. Historically the Global Innovators Fund has tended to outperform in the Index's positive months and underperform in negative months, but outperform more on the upside than it loses on the downside. On average that picture held true for 2015. There were only two months in the year where the Index demonstrated strong positive performance: February and October. In both of these months the Fund comfortably outperformed. The two largest drawdowns of the benchmark were in August and September, and over these two months combined the Fund outperformed the benchmark.

Figure 1: Monthly total return of Fund versus benchmark in 2015



Source: Bloomberg, as of 12/31/15

One factor that goes a long way to explaining the underperformance in other periods was the fact that expensive growth companies (highly valued companies with strong revenue growth) outperformed companies offering attractive valuations, as can be seen in the chart below.

Figure 2: Value versus growth

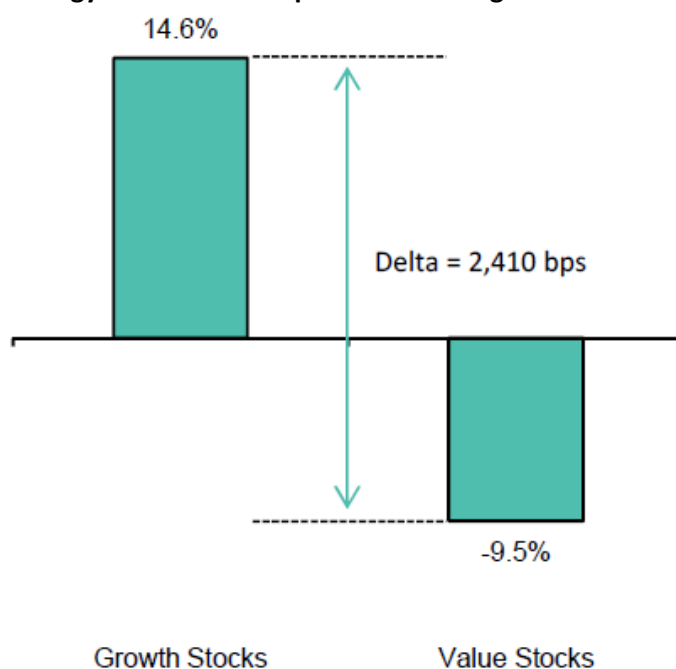
MSCI World Value Index relative to MSCI World Growth Index in 2015



Source: Bloomberg, as of 12/31/15

It has been well documented that a handful of large, expensive growth companies such as Amazon and Facebook drove the majority of Index performance in the US in 2015. Looking specifically at the US IT sector (where the Fund has a considerable weight), analysis from Bernstein shows that in 2015 US technology stocks at the growth end of the spectrum outperformed stocks at the value end of the spectrum by 24.1%.

Figure 3: US technology sector: relative performance of growth and value stocks in 2015



Source: IBES database, Bernstein analysis, Bernstein Quant Team (Larson). Market cap. weighted. Bps = basis point

We have always sought to apply a valuation discipline when running this strategy – and to avoid the temptation to invest in exciting stories at heady valuations. This discipline does not mean we won't invest in companies with high levels of anticipated growth, it just means we will only do it when we are comfortable that we are not putting your money at excessive risk from a valuation perspective. As a case in point we invested in Netflix in 2007 when it traded on a P/E multiple of 24x when earnings were growing at over 30% per year, but we do not own it today when it trades on a 2016 P/E of 250x with earnings expected to grow at 15% in 2016.

US tech growth stocks as a group are now at valuations that are the furthest away from US tech value stocks as we have ever seen. We therefore think it is unlikely this trend will persist for long, and 2016 may well see this divergence in performance reverse.

Macro factors were again the dominating narrative be it interest rate rises in the US, weaker growth in China, or the Eurozone struggling with the implications of its founding principles (fiscal, monetary and social). The Fund managed to weather this macro environment reasonably well. We had only a small exposure to falling commodity prices in the form of Schlumberger and BP (we sold the latter in the third quarter). Our exposure to expectations of rising interest rates in the US was really limited to our emerging market exposure, which was very much at the quality end of the spectrum.

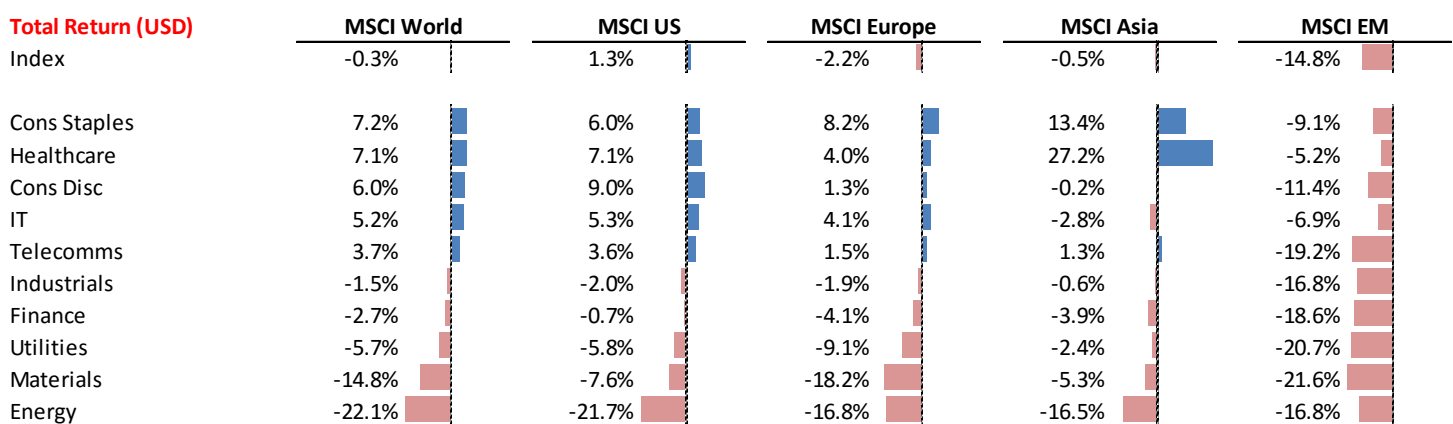
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However, our holdings in Lenovo, Samsung and Li & Fung were a drag. Europe underperformed the US, and the portfolio was overweight the US.

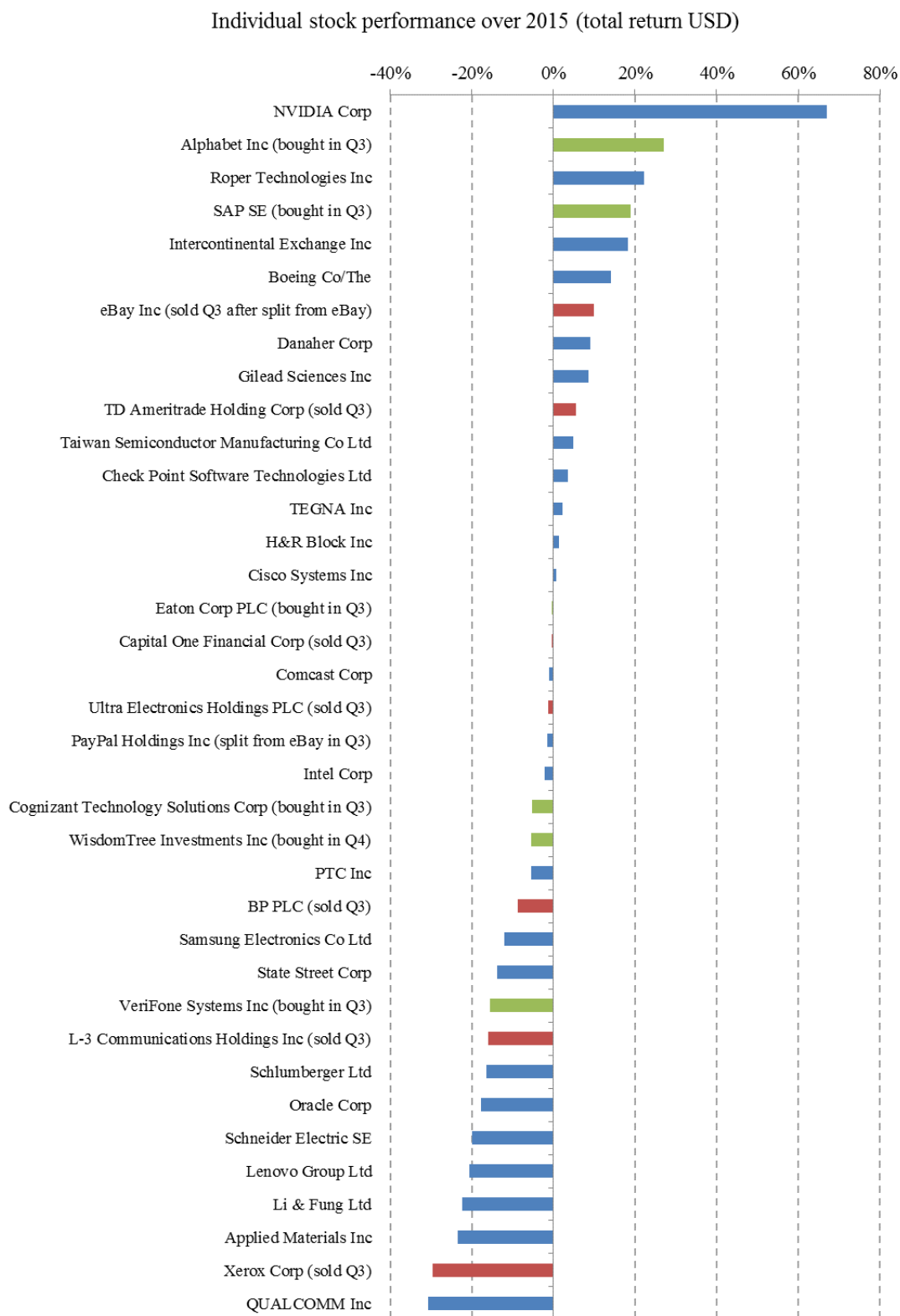
Given all the macro economic uncertainty that existed through 2015, it was not surprising to see defensive sectors like consumer staples and healthcare perform strongly. We had no exposure to the consumer staples sector and just one holding in the healthcare sector: Gilead Sciences.

Figure 4: Total return by region and sector (USD) in 2015



Source: Bloomberg, as of 12/31/15

Figure 5: Individual stock performance over 2015 (total return USD)



Source: Bloomberg, as of 12/31/15

Changes to the portfolio

We sold six positions and initiated six new positions over the course of 2015.

We did not make any changes to the portfolio in the **first** and **second quarter**.

However, we made a number of changes to the portfolio in the **third quarter**.



Before we saw the sharp decline in equity markets in early August, we decided to sell our position in **TD Ameritrade** (the online broker) after it had shown exceptionally strong performance over the previous two and a half years. It had become the most expensive company we owned in the portfolio, trading on a PE of 25x 2015 earnings. This valuation was also the highest the company has traded at in the last ten years.

We replaced TD Ameritrade with **Verifone**, the leading provider of card payment terminals and services. They provide the technology and infrastructure that allow merchants to offer a variety of payments options including chip and pin, contactless card payments and more recently the likes of Apple Pay and Google Wallet.

The company has benefitted from the rollout of chip and pin technology in the US; a shift in liability on card fraud to merchants is making those that don't yet have this technology vulnerable. Despite this liability shift occurring in October this year, the US is only around a third of the way through this process and the full rollout is likely to take a few more years.

Large retail chains have (unsurprisingly) been the first to adopt the technology, but this has been followed by merchants that sell high ticket items. Clearly a shop selling high-priced electrical goods is more prone to credit card fraud than a coffee shop.

The new terminals that are being rolled out are also capable of processing contactless payments, including the Near Field Communication (NFC) chips being used by "mobile wallets" such as Apple Pay and Google Wallet. Rollout of digital wallets such as Apple Pay could intensify pace of demand for EMV terminals from customers.

We felt there was an attractive combination of a quality, high return-on-capital business, with a number one position in many of its markets, in a secular growth trend, with a number of catalysts for margin expansion, trading on a very reasonable multiple of 18x going to 15x. While the valuation multiple leaves some potential for multiple expansion, we would expect the majority of the total return to come from earnings growth.



Although we do not class this as an *official* buy-sell in the portfolio, in early July our longstanding holding in eBay spun off its **PayPal** business into a separate entity. The PayPal business more closely met the criteria we look for in this Fund, so we sold our remaining position in eBay and reinvested it in PayPal. PayPal has a very strong competitive position in the mobile payments space, with an early mover and scale advantage, while at the same time being very well positioned to continue to grow at almost 20% per year.



Later in the third quarter we sold our position in **Capital One Financial** and replaced it with **Cognizant**, the IT consultant and service provider. Capital One's valuation had eroded substantially over the last four years, driven by their ability to generate growing revenues and earnings from a very profitable book of credit card debt with historically low delinquency rates. However, in the second quarter these delinquency rates went up, which we felt was an opportune time to bank a profit.

We were attracted to Cognizant by its ability to generate consistently high return-on-capital with double digit growth in revenues. The company has been very good at allocating capital, making numerous successful small bolt-on acquisitions. Cognizant is also managing to take market share from its competitors. The company's growth is partly dependent on global IT spending, but its competitive positioning and reasonable valuation made it an attractive alternative to holding Capital One.

During the broad market correction towards the end of August we took the opportunity to make a number of changes to the portfolio, buying positions which had been on our 'watchlist' where we had been waiting for an opportune entry point.

We sold four companies: Ultra Electronics, Xerox, BP, and L-3 Communications.



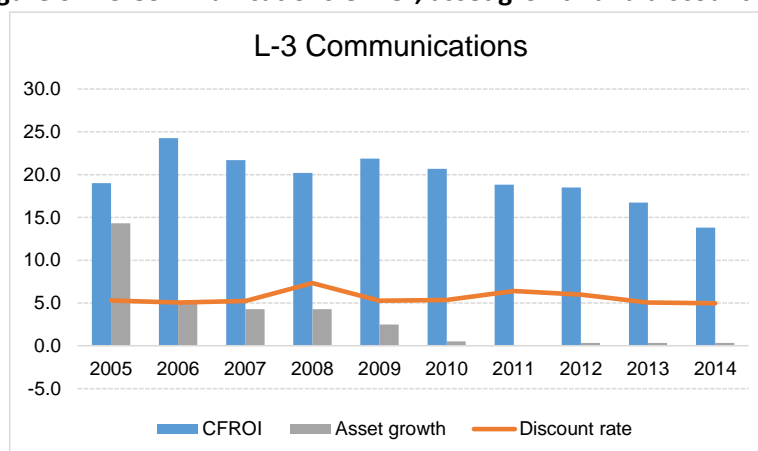
Ultra Electronics, the UK-listed defence company, has been held in the strategy since late 2013. It was one of the smaller market cap. companies we owned, at around \$2bn. The company traded on modest multiples at purchase of 14x forward earnings alongside reasonable growth of 3-5%. Revenues declined in 2014 and continued into 2015. But margins held reasonably firm. The return-on-capital began to erode quite rapidly, however, as the lower sales coincided with increased asset growth. During the turmoil in markets in the summer of 2015, Ultra actually held up very well, outperforming in that short period – perhaps on expectations of increased government defence spending in the future. We therefore took the opportunity to exit the holding at that time, as a declining return-on-capital profile is always a particular concern for us and especially if this coincides with a robust share price performance. This combination can often highlight 'value traps' where the market is ignoring the fundamentals of a business and instead focusing on the 'story' which will turn around the malaise.

Xerox was a company we held in the strategy from mid-2014 and sold in August 2015, so a relatively short holding period compared to our average of four years. Over our holding period Xerox underperformed the broad market. The underperformance was driven by a profit warning in April of 2015. We try to avoid short-term numbers influencing our decisions, and indeed held the company for a number of months after the initial warning, but through that period our conclusion was that the revenue declines seen would continue and any turnaround by management could be some time coming. As we follow a ‘one in-one out’ approach we are also constantly assessing our current holdings versus any other company we might own, and we felt there were better opportunities than continuing to hold on to Xerox.

BP had been a very long-term holding in the strategy, and we have owned the company through both the financial crisis of 2008/9 and the Macondo drilling disaster of 2010. However, the oversupplied nature of oil markets in general and the uncertainty surrounding the timing and mechanism of how this oversupply would be used up – whether from increasing demand trends or a reduction in supply from within or outside OPEC – gave us cause for concern. We do not profess to be able to ‘call’ the oil price but we increasingly felt there were better opportunities available in other sectors. We also worried that a ‘lower for longer’ oil price environment would put considerable pressure on the ability of the company to maintain its dividend payment. Although we did not own the company specifically for its income we were aware that it is an important metric for many investors in the stock, and that any dividend cut would likely add to the selling pressure we have seen over the past 18 months. Ultimately we saw better risk/reward in other parts of the market and decided to exit the position.

From a valuation point of view, **L-3 Communications** appeared to be trading at stretched multiples, certainly in respect to where the company had traded historically – and this was a concern. What really drove us to sell the company, however, was the deterioration in the underlying quality of the business.

Figure 6: L-3 Communications CFROI, asset growth and discount rate



Source: Bloomberg, as of 12/31/15

As the chart above shows, the cash flow return on investment (CFROI) has declined quite significantly over 2014, and expectations were for this decline to continue into the future. Sales growth had been negative for a number of years, and we had just started to see a decline in

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operating margins coming through. With little or no asset growth expected, it appeared unlikely the company could reverse the decline in economic profits it was generating – and that the market was anticipating.

We replaced the sales made at the end of August with buys of SAP, Alphabet, and Eaton.



Alphabet



When markets get skittish and sell off, the correlation of asset returns can increase. This was exactly the case in the summer of 2015. In such instances company fundamentals can often get ignored as investors rush for the exit, meaning all assets sell off in unison. This can often provide an opportunity to purchase good companies at better prices and this is exactly what we tried to do. **Alphabet**, the new name for the holding company of Google, had performed particularly well in July of last year as the market was positively surprised by its strong results and commitment to greater investor transparency. From that point to the end of August the stock price then declined almost 13% (in USD), exactly in line with the S&P500. In light of the new results and compelling valuation compared to the long term-growth expectations (c.20x forward PE and mid-single digit earnings growth) we decided to sell Xerox and buy Alphabet.

We purchased **SAP**, the German-based software company, at the end of August, and under similar circumstances. SAP is a high-quality company, and has achieved consistently high cash flow return on investment for the last 20 years. Over the last five years this return-on-capital has actually increased though a combination of acquisitions and improved performance. Combined with strong asset growth, stable margins and modest revenue growth, this has meant the company has consistently ramped up economic profits. The company has moved into the mobile and cloud computing market, which is a potentially more competitive environment, but with long-term earnings growth in the high single figures and multiples no more than the market, we believe the company can continue its good performance in the future.

Eaton was a company that had been focussed on electrical power components until its acquisition of Cooper Industries. The company now has a more diversified business. Although Copper represented the largest of the company's acquisitions, previous transactions have been integrated successfully. One of the attractions of the company and management was the excellent capital allocation discipline, exemplified by the progressive dividend policy and long history of high, and more recently growing, return-on-capital. We expect long-term earnings growth in the mid to high single digits. With a reasonable valuation (around 12x forward earnings), and a dividend yield well above the market, we think there is a good margin of safety in the price and good potential for future returns.

In the **fourth quarter** we made one further purchase for the Fund: WisdomTree. This left the Fund with our target 30 holdings at the year end.



The ETF market has grown – and evolved – at a rapid pace over the past few years, and WisdomTree has been at the forefront of those changes. WisdomTree is a specialist ETF provider and, unlike its larger competitors, this is the only business it is in. The company launched its first ETF in 2006 and has grown its assets under management (AUM) from less than \$1bn to over \$50bn today. It is probably best known for its range of currency-hedged funds, which account for approximately 60% of total AUM and have been the main driver of AUM growth. This rapid success is also seen as an Achilles heel by investors, however, as the concentration of assets in relatively few products suggests those assets could decrease if investor sentiment changes towards those products. We felt this point in time provided a good entry point to buy the stock as it de-rated from a forward PE multiple of over 35x to less than 20X.

Like other asset management companies, WisdomTree enjoys very high operating margins and good cash generation. We recognise that a reduction in central bank largesse in Europe or Japan could have a detrimental effect on its large currency hedged products, but felt the market was taking an overly myopic and too short-term view on the prospects for the company. The company has driven innovation in the ETF market place and has many more products that could replicate the success of its ground-breaking line-up today. It also has the ability to grow outside the US, and indeed already has a successful foothold in Europe. The company has been growing its sales team; it now has a platform and brand to sell new WisdomTree-developed products, and it has the potential to acquire smaller-scale ETF providers and use its platform to increase their assets. We have already seen the acquisition of commodity ETF provider Boost, where assets have increased five-fold within the first year after completion of the transaction. Management initiated dividend payments in late 2014 and announced a special dividend in 2015, which suggests management is not just wasting cash or growing purely for growth's sake too. With a market cap. of \$2bn it is at the smaller end of what we consider for the portfolio, but this means it could easily be the target for a larger incumbent wanting quickly to enter the ETF space.

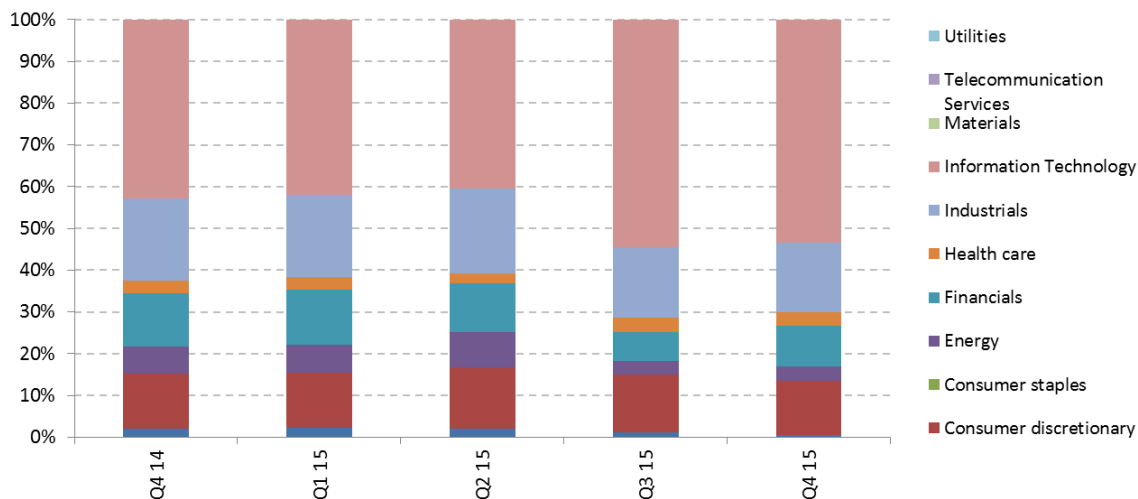
Portfolio today and outlook

The charts below show the sector, market cap and geographic breakdown of the portfolio over the year. Given we did not make any changes in the first and second quarter it is only in the third quarter that any meaningful variations are seen.

Collectively the changes we made over the course of the year had the effect of improving the quality of the portfolio, improving the growth profile and improving the valuation discount to the broad market.

In terms of sector allocations over the year we reduced our exposure to financials and industrials and increased our exposure to IT, mainly in software and services as opposed to hardware or semiconductors. We still have no holdings in consumer staples, materials, telecoms or utilities.

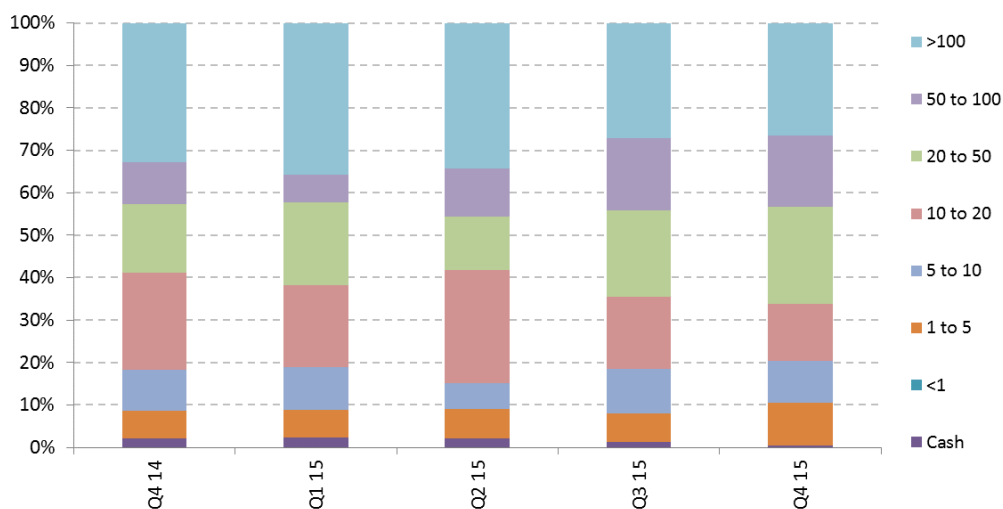
Portfolio Sector Breakdown



Source: Bloomberg, as of 12/31/15

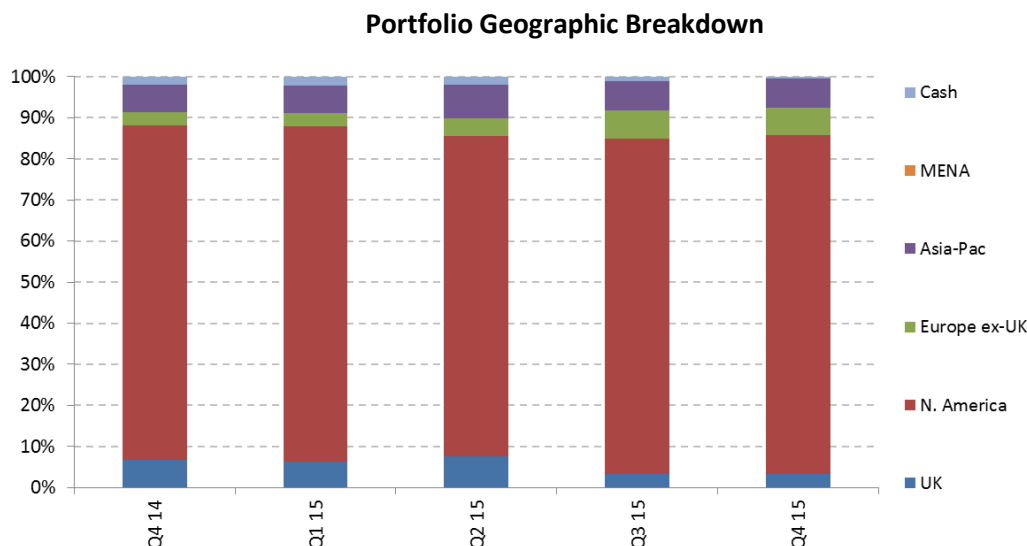
In terms of the market cap. breakdown we have reduced our exposure to companies with a market cap over \$100 billion. However, the split between companies with a market cap. over \$50 billion and below \$50 billion has essentially stayed the same.

Portfolio Market Capitalization Breakdown



Source: Bloomberg, as of 12/31/15

In terms of the portfolio's geographic breakdown, the portfolio continued to have a strong bias to the US. The changes we made reduced our exposure to the UK but increased our exposure to Europe ex-UK.



Source: Bloomberg, as of 12/31/15 MENA = Middle East and North Africa

Even though this portfolio is focused predominantly on growth opportunities, ever since we as a firm started managing this strategy in 2003 we have always employed a value discipline, and it has served us well. Value in this context does not mean simply optically cheap stocks. It means identifying companies where profitable growth opportunities exist and where the market under-appreciates these opportunities. More importantly, it means avoiding companies with characteristics that are statistically likely to destroy your capital. Weak business are one way to destroy capital. Companies with excessive valuations are another. But most importantly it is the combination of a weak business and excessive valuation that is most likely to lose you money, and we will always avoid these companies. Benjamin Graham's observations are well entrenched in our thinking:

"The risk of paying too high a price for good quality stocks – while a real one – is not the chief hazard... Observation over many years has taught us that the chief losses to investors come from the purchase of low quality securities at times of favourable business conditions." Benjamin Graham

With interest rates having been at historic lows as a result of untried accommodative central bank policy, one might class the years since the banking crisis as having been "favourable business conditions". Most importantly, this will have allowed poor quality businesses to continue operating where they may have struggled in a more difficult scenario. A combination of a more uncertain macro backdrop (slowdown in Chinese growth, currency wars or rising interest rates in the US) and low quality businesses with excessive valuations could prove to be a risky bet in 2016.

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May we wish you a happy a prosperous New Year, and we look forward to updating you on the progress of the fund over the course of 2016.

Matthew Page, CFA
Dr Ian Mortimer, CFA

Portfolio managers, Guinness Global Innovators Fund

January 2016

* 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 or 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 .99% or 1.24% expense cap, respectively.

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.

Top 10 Holdings of Guinness Atkinson Global Innovators Fund as of 12/31/15:

1. Oracle Corp 3.82% 2. Intercontinental Exchange Inc 3.72% 3. Cisco Systems Inc 3.62% 4. Intel Corp 3.59% 5. PTC Inc 3.58% 6. Samsung Electronics Co Ltd 3.48% 7. PayPal Holdings Inc 3.46% 8. Oracle Corp 3.45% 9. Alphabet Inc - A Shares 3.40% 10. Gilead Sciences Inc 3.40%

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)

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The MSCI World Value Index captures large and mid cap securities exhibiting overall value style characteristics across 23 Developed Markets countries.

The MSCI World Growth Index captures large and mid cap securities exhibiting overall growth style characteristics across 23 Developed Markets countries.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

S&P 500 Index is a broad based unmanaged index of 500 stocks, which is widely recognized as representative of the equity market in general.

Correlation is a statistical measure of how two securities move in relation to each other.

Cash flow return on Investment (CFROI) is a valuation model that assumes the stock market sets prices on cash flow, not on corporate earnings. It is determined by dividing a company's gross cash flow by its gross investment.

Delta is the ratio comparing the change in the price of the underlying asset to the corresponding change in the price of a derivative. Sometimes referred to as the "hedge ratio."

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

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