

Guinness Global Innovators Fund

Innovation | Quality | Growth | Conviction

INVESTMENT COMMENTARY – February 2018

About the Fund

The Fund is a global growth fund designed to provide exposure to companies benefiting from innovations in technology, communication, globalisation or innovative management strategies. The Fund holds a concentrated portfolio of large and medium-sized companies in any industry and in any region.

Fund size	\$177m
AUM in strategy	\$418m
Fund launch date	31.10.14
Strategy launch date	01.05.03
Managers	Dr. Ian Mortimer, CFA Matthew Page, CFA

Performance 31.01.18

Cumulative % gross total return (GBP)	1 year	3 years	5 years	10 years
Strategy*	20.8	59.1	147.4	274.1
Index	11.9	50.3	99.1	175.7
Sector	13.2	42.6	75.7	122.3
Position in sector	26 /279	30 /247	5 /221	4 /151

Annualised % gross total return from strategy inception (GBP)

Strategy*	13.25%
Index	10.65%
Sector	9.38%

Strategy	Guinness Global Innovators*
Index	MSCI World Index
Sector	IA Global

Past performance should not be taken as an indicator of future performance. The value of this investment and any income arising from it can fall as well as rise as a result of market and currency fluctuations. *Composite simulation of performance. Guinness Global Innovators Fund (UCITS) launched on 31.10.14. Performance data prior to this date is based on the actual returns of a US mutual fund managed by the same team using the same investment process as applied to the UCITS version. Source: Financial Express (0.99% OCF), bid to bid, gross total return, in GBP.

Summary performance

In January, the Guinness Global Innovators Fund produced a total return of 0.4% (in GBP), versus the MSCI World Index return of 0.2%. The fund therefore outperformed the index by 0.2% in the month.

Over a one-year period to the end of January, the fund is ahead of the benchmark, up 20.8% (in GBP) versus the MSCI World Index return of 11.9%.

In the current sell-off in global equity markets, between January 26th and February 12th, the Guinness Global Innovators Fund was down 5.0% (total return in GBP), which was broadly in line with the MSCI World, down 5.1% over the same period. Given the fund is a growth portfolio with a beta of 1.1, we do not necessarily expect it to outperform in weak market environments. However, our desire for growth is tempered by our focus on balance sheet strength, high return on capital and a valuation discipline, and this has meant that in the current market sell off the fund has performed in line with the broader market, which we consider to be very satisfactory.

January in Review

Global markets were certainly not plagued with the January blues, but rallied sharply. The major equity markets continued their ascent of previous years, led by emerging Asia and the U.S. However, the tranquillity was disrupted as a sell-off led by the U.S. began on the 26th January.

The U.S. jobs report indicated an acceleration in wage growth, which showed average hourly wages climbed at a year-on-year rate of 2.9 per cent in January and 2.7 per cent in the previous month. This led to rising bond yields and a sell-off in global equity markets into February. Investors were concerned that the return of inflation and higher rates could erode the profitability for companies

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trading at elevated valuations. Market volatility also increased. As Janet Yellen had her final meeting as the chair of the Federal Reserve, there remained expectation of a further rate rise in March.

By the end of January, many companies had reported earnings and out of around 400 companies that are tracked by five or more analysts, 70.5% had their price targets upgraded. Generally, reported earnings beat expectations.

Eurozone economic data did not support the case for a rapid pullback in monetary stimulus. In December, Eurozone producer price growth slowed to +2.2%, missing forecasts and down from +2.8% the previous month. The overall eurozone inflation rate was shown to be 1.3% in January, below the ECB's target of around 2%, reducing pressure on the central bank to tighten quickly. Italians head to the polls for their national elections in March. Increasing Euroscepticism in one of the founding members of the EU and the Eurozone's 3rd largest economy will be watched carefully. In recent years Euroscepticism has been rising in Italy due to the country's deep recession, weak recovery and the migration crisis happening across its southern coast.

The EU and the UK are back to negotiating the guidelines of a Brexit transition period after the lengthier-than-expected first phase of Brexit negotiations. This is with a backdrop of disagreements emerging both within the UK Cabinet and with the EU.

In Asia, the UK Prime Minister Theresa May visited China but refused, along with France, to give written support for China's "new silk road" project. There is still concern that contracts for huge infrastructure schemes are not awarded transparently and favour Chinese companies. North Korea is to send its ceremonial head of state to the opening ceremony of the Winter Olympic Games in South Korea in February. There is hope that North Korea's participation in the games will ease tensions on the peninsula.

Market Movements

In January, the S&P 500 had its strongest month since March 2016, despite concerns that a correction could be overdue, which towards the end of the month appeared likely as markets continued their decline into the first week of February. As of the end of January, earnings revisions were notably stronger than their five-year average, pointing towards a strong start to the earnings season.

Given the strong rally in the beginning of the month and the rise in bond yields towards the end of the month it was not surprising to see Utilities and defensive sectors lagging. The leading sectors were Consumer Discretionary, notably retail, and IT. The rise in 10-year yields also helped support U.S. Financials. Europe saw less pronounced earnings revisions, and the STOXX 600 trailed its U.S. counterpart in January.

The Global Innovators Fund's Industrial stocks added most to outperformance over the month, notably Boeing and Fanuc, the Japanese robotics manufacturer. The current overweight position in Information Technology also contributed positively to performance over January.

Portfolio update

Individual stock performance in the month followed, in general, the market movements described above. Key stock movements are highlighted below.



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Nvidia (+27.0% total return in USD) continues to see strong demand for its graphics processing unit chips from computer gaming and datacentres, the machines driving the analysis behind big data, artificial intelligence and machine learning. Nvidia's chips are also key to the development of autonomous vehicles, giving the company an exciting avenue for future growth.

Boeing (+20.2% total return in USD) rallied strongly over the month as sentiment on its rising production of narrow and wide-body aircraft is expected to positively impact profitability. The company reported earnings at the end of January which demonstrated strong growth in cashflow.



Shire (-10.4% total return in USD), the global biotechnology group, specialises in drugs treating rare diseases and specialized conditions. Shire has seen benefits from its acquisition of Baxalta in 2016 in terms of synergies, combating slowing sales growth and looming patent challenges for older products. However, in January sentiment turned negative regarding what would happen after these synergistic benefits were exhausted. Shire's new plasma manufacturing facility will boost its capacity by 30% but will be a drag on 4Q gross margin.

WisdomTree (-7.7% total return in USD), an ETF provider, rallied into the middle of January but sold off as expectation of its Q4 2017 earnings turned negative amid weaker markets. WisdomTree's earnings reported in early February saw its business suffer outflows in Europe and inflows slow in its Canadian operations.

We made two changes to the portfolio in January. We bought KLA Tencor and Lam Research and sold Intel and Verifone.



Intel has been held in the fund since February 2011. It performed well over the holding period, with particularly strong performance materialising in 2017. Earnings released in October 2017 exceeded market expectations but we did not see strong growth continuing throughout 2018 and beyond. Cash flow return on investment has also been declining in recent years, adding to the potential risks.

Verifone provide the technology and infrastructure that allow merchants to offer a variety of payments options, including chip and pin, contactless card payments and the likes of Apple Pay and Google Wallet. The company was bought on the original expectation that it would benefit from the rollout of chip and pin technology in the U.S. which was being driven by a shift in card fraud liability to merchants that do not offer this technology. This rollout of this has remained slow and demand for Verifone's payment terminals has slowed, alongside softer card-network rules regarding fraud liability for non-chip terminals, decreasing the urgency to upgrade in certain merchant segments. This, combined with a declining cashflow return on investment profile and increasing debt on the balance sheet, contributed to our decision to sell Verifone.



KLA Tencor, a U.S.-based supplier of semiconductor process control and yield management solutions, is at the forefront of improving yields and reducing failure rates in the semiconductor industry. The company's products include defect inspection and calibration products. We see potential for the overall industry to expand, with the key market drivers being data centres, high performance computing, autonomous driving and artificial intelligence. KLA Tencor offers an attractive valuation of 14.4x with a strong cashflow return on

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investment profile and well-covered debt. We think the company is in a good position to meet our return requirements at a valuation which provides some downside protection.

Lam Research, the U.S. manufacturer of semiconductor processing equipment has been at the forefront of innovative wafer fabrication. Wafer manufacturing has been integral to a range of secular trends within the Information Technology sector. On a company level, Lam Research has seen improving cashflow return on investment while maintaining a strong balance sheet. The company has continually invested in R&D to help preserve its competitive edge. Recently, earnings and margins have been trending upwards. When looking at the company on a valuation basis it is attractively priced versus its own history, trading below its long-term average forward P/E and cheaper than the majority of its peers.

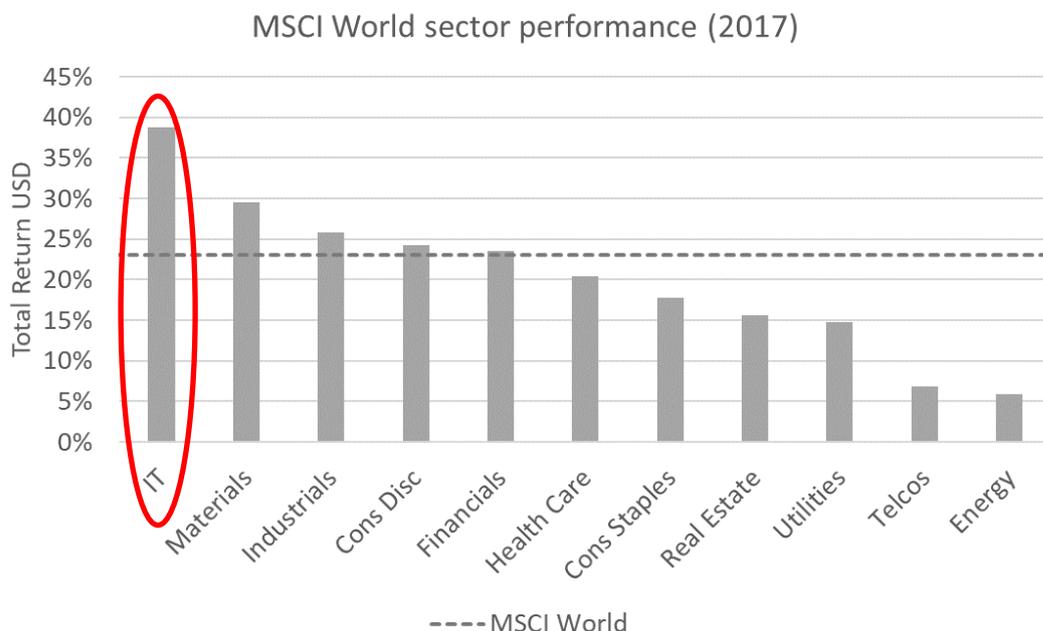
The overall effect on the portfolio was to maintain a similar exposure to the U.S. and the IT sector but to increase our exposure within IT to Semiconductors and to reduce our exposure to Technology, Hardware & Equipment. The fund remains at an allocation of just under 50% to the IT sector.

Given our significant weight in the IT sector and its recent strong performance, investors have understandably been asking us whether IT is now overvalued. In the next few pages we take a top-down view of what has driven the performance of the IT sector and how valuations and growth rates today compare to history, and look at where we see the most attractive combination of innovation, growth and valuation within the IT sector.

The IT sector in 2018 – growth driver, or expensive and overhyped?

Whether it was the “FAANG’s”¹ or “BAT’s”², the internet stocks, the disruptors, etc., 2017 was a strong year for IT companies. The global IT sector was the top-performing sector in 2017 and it generated an impressive total return of 38.74% (USD).

Chart 1



Source: Guinness Asset Management, Bloomberg

Whilst 2017 was a particularly strong year for the IT sector, it has also outperformed the MSCI World Index over the last seven years (by 76%) and again it was the best-performing sector over this period.

¹ Facebook, Amazon, Apple, Netflix, Google

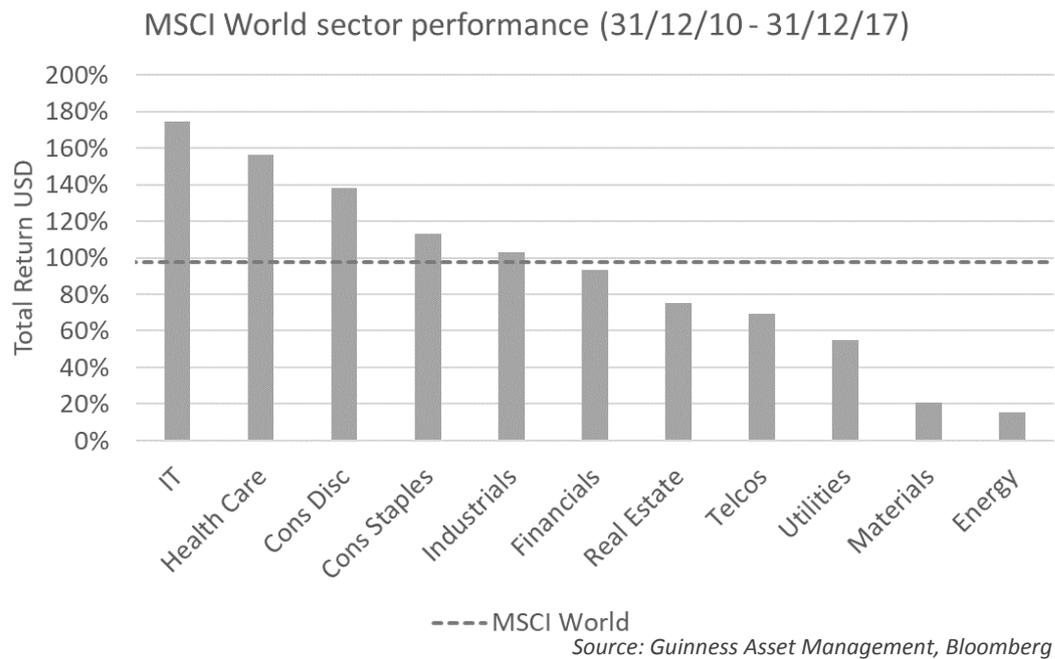
² Baidu, Alibaba, Tencent

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Chart 2



Chart 3



It is interesting to look back at this period and note the strong performance of the more innovative sectors, IT, Health Care, Consumer Discretionary, Industrials, in contrast to the generally less innovative sectors, such as Real Estate, Telcos, Utilities, Materials and Energy.

“Innovation distinguishes between a leader and a follower.” Steve Jobs

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However, given this strong performance from the IT sector over the last year and over the last seven years, should we be worried about IT company valuations?

“Learning and innovation go hand in hand. The arrogance of success is to think that what you did yesterday will be sufficient for tomorrow.” William Pollard

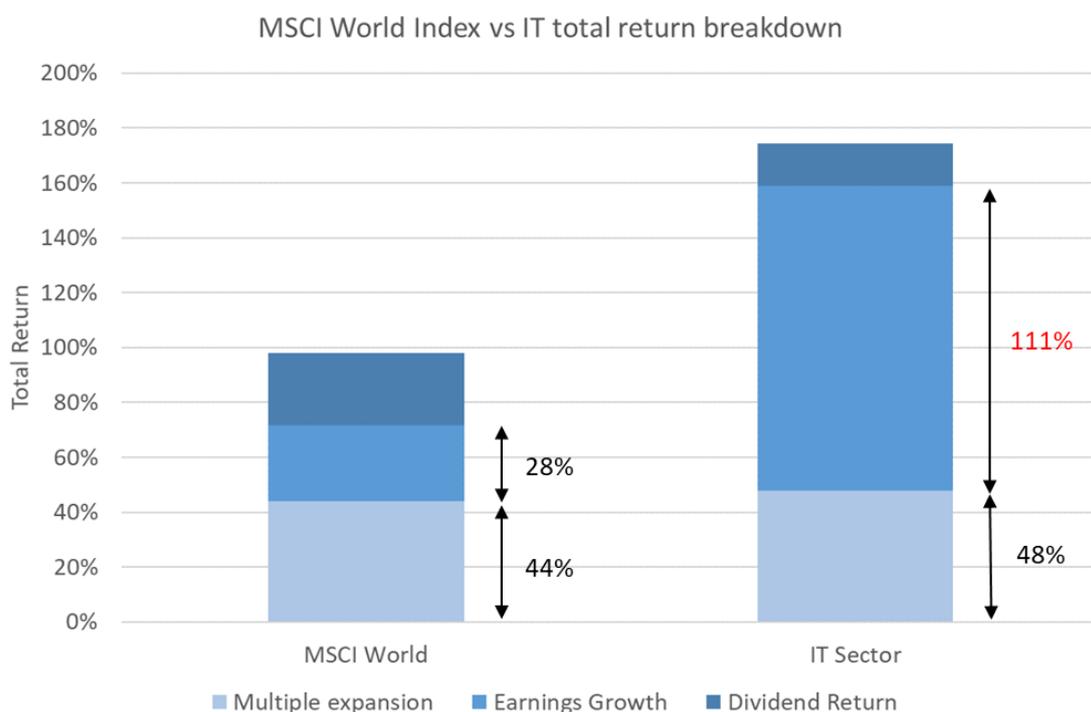
An interesting place to start to answer this question is to look at the performance drivers of the IT sector over the last seven years and compare it to the MSCI World Index.

We can decompose the total return of an equity, sector or index into three parts: first, the return due to a valuation multiple expansion, in this case the price-earnings multiple, secondly the return due to the growth in expected earnings, and thirdly the return due to dividends and their reinvestment.

As you can see in chart 2, when we compare the drivers of the return of the IT sector to that of the MSCI World Index we see that the return due to multiple expansion is very similar for both: 44% for the MSCI World index and 48% for the IT sector.

The main driver of the IT sector outperformance has come from very strong earnings growth. Indeed, earnings forecasts for the IT sector have grown by an impressive 111% over the last seven years, compared to only 28% for the MSCI World Index.

Chart 4

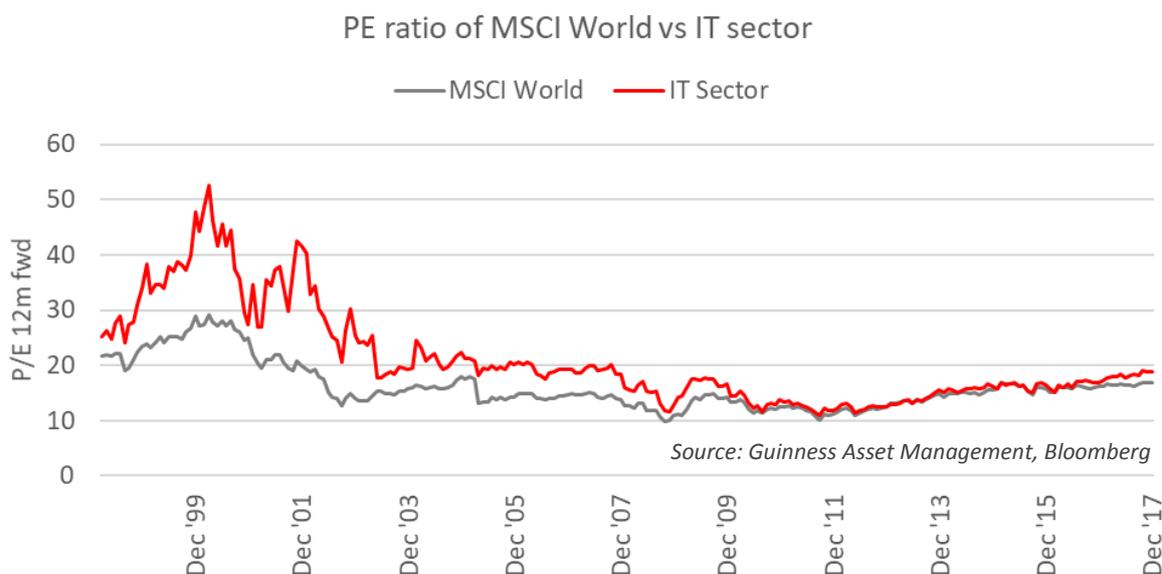


Given the multiple expansion in the IT sector has been very similar to that of the MSCI World index, arguably we should not be overly concerned about the valuation of the IT sector. If anything, should we not be more concerned about the other sectors that are not delivering such impressive earnings growth?

When we look at the valuation of the IT sector and compare it to the MSCI World Index and go back 20 years (as far as we can go back), we can see that the IT sector at the end of 2017 traded at a small premium to the MSCI World. Clearly, we are not in the territory of the excessive valuation of the “dot-com” bubble at the turn of the millennium.

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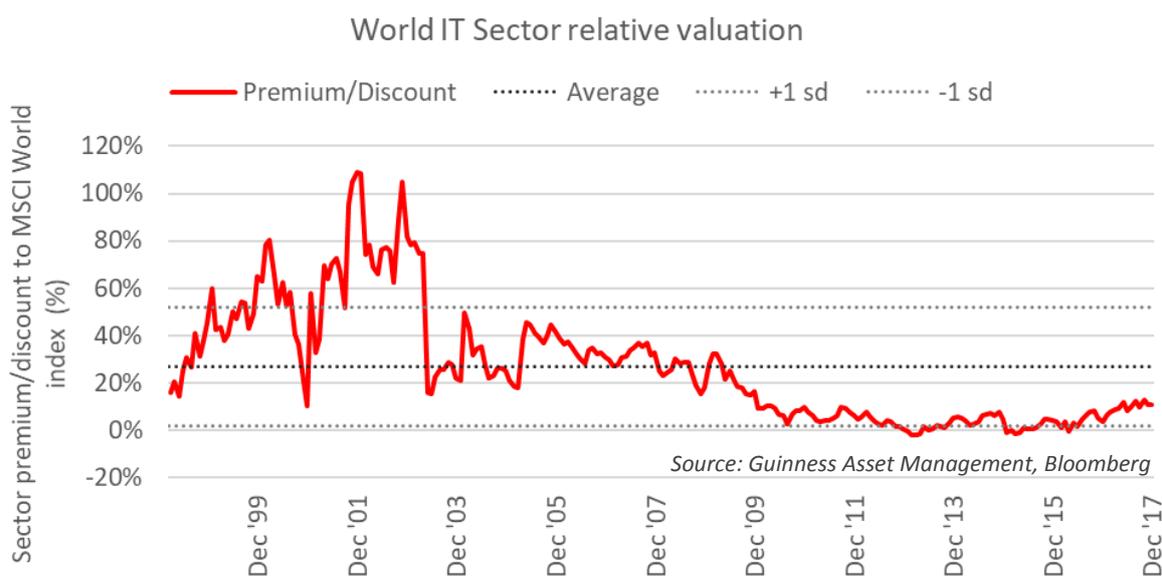
Chart 5



We should expect the IT sector to generally trade at a premium to the broad index given the historic growth rates and potential for future growth in this innovative sector. You might have thought that back in 2010 IT stocks were already expensive relative to the MSCI World Index, but that was not the case, as the chart below shows. In December 2010 the IT sector traded at a 10.0% premium to the MSCI World Index, whereas at the end of 2017 it traded at a 10.4% premium. If we look at the premium or discount that the IT sector has traded at relative to the MSCI World Index over the last 20 years, the premium at the end of 2017 of 10.4% is well below the 20-year average of 27%.

Certainly, the sector was looking particularly attractively priced through 2010 to 2015 where it was trading at around one standard deviation below the 20-year average premium, but there is still some way to go until IT stocks return to their average premium.

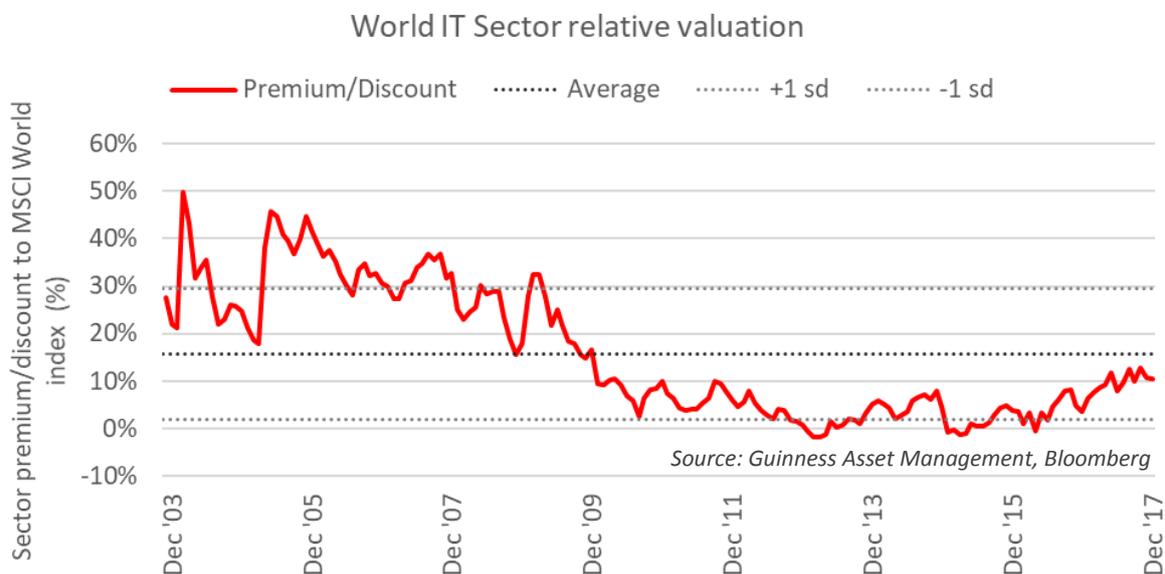
Chart 6



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Even if we look at the same data but strip out the years in anticipation of the dot-com boom and the hangover of the bust (1998-2003), then the IT sector today trades at its average premium over this period (2003-2017).

Chart 7



It is interesting to look at how growth expectations for the sector have evolved over the last 20 years. As the next chart shows, earnings expectations for the sector have moved dramatically over this period. Expectations around the time of the dot-com bubble were clearly far too high and did not last long. The global financial crisis and ensuing recession had a meaningful impact on expectations of earnings growth, but these recovered reasonably quickly. Despite these gyrations in expectations, on average over this period analysts have expected the sector to grow its earnings at 13%. However, analysts currently expect IT sector earnings to grow at a much faster rate of 23%.

Chart 8



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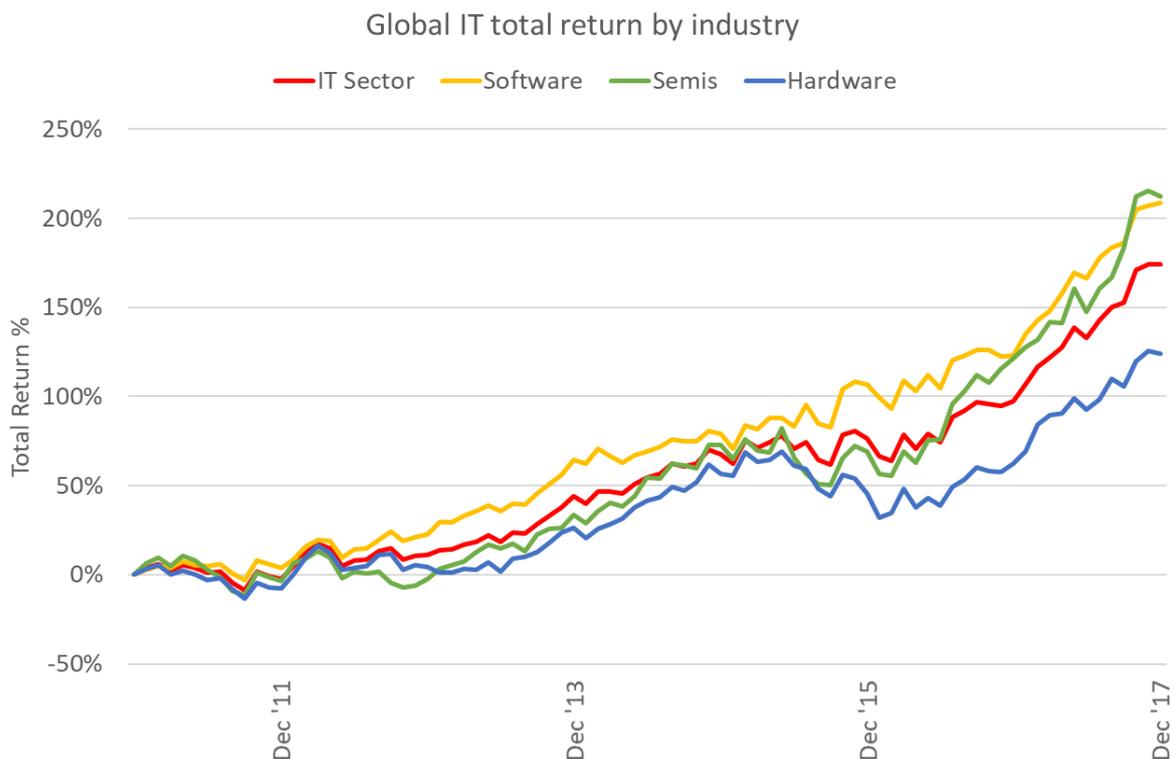
There seems therefore to be little to concern us when we take a broad, top-down view of the IT sector and compare it to historic norms. In summary:

1. The IT sector has indeed performed well over the last seven years, but this has been driven by strong earnings growth, not a big multiple expansion like the dot-com bubble. The multiple expansion of the IT sector over the last seven years has been very similar to the MSCI World Index.
2. IT companies are trading on a multiple which is below the 20-year average premium to the MSCI World Index, with a considerable gap to make up before we are even back to average (let alone an above-average) premium.
3. Currently analysts expect IT companies to grow their earnings at a faster rate than the 20-year average. This could be an area of concern if we thought analysts were being overly optimistic. However, with a global economy performing well as the U.S., Europe and China all release positive economic data, and various secular growth themes driving growth in IT (be it big data, internet of things, robotics, virtual and augmented reality, etc.), an above-average forecast of earnings growth seems far from outlandish.

We then wanted to go a little deeper to consider whether there are any subsectors with excessive valuation within the IT sector.

The IT sector can be split down in different ways, but we like to break it down into three industries: Software, Semiconductors, and Hardware. The chart below shows how these three have performed over the same period. We can see that the Hardware sector has lagged the average, but Software and Semiconductors have been particularly strong.

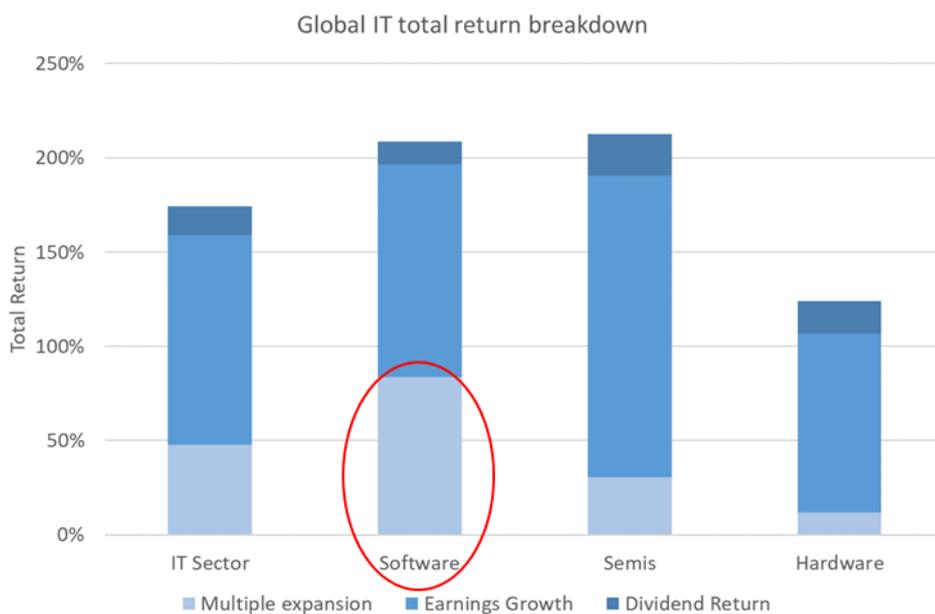
Chart 9



When we look at what has driven the performance of these three different industries we can see that again earnings growth has dominated their returns. However, it is noticeable that it is the Software industry that has seen the largest multiple expansion, while in Hardware and Semiconductors multiple expansion has been even lower than that of the MSCI World Index.

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Chart 10



Looking at how valuations have evolved for these industries, it is interesting to note that back in 2010 they traded on very similar multiples, with Semiconductors being the cheapest. However, over the last seven years we have seen a significant re-rating in the Software industry to the point where it now trades at a 50% premium to Hardware and Semiconductors.

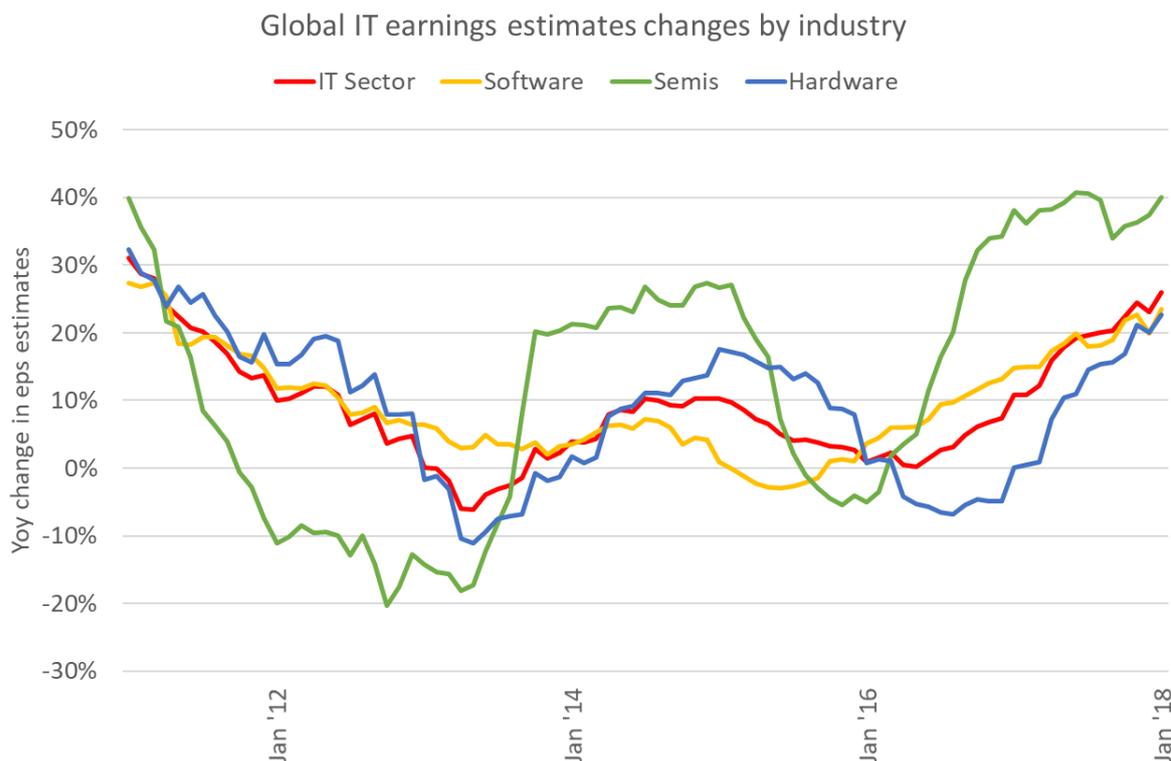
Chart 11



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If we look at how forward-looking expectations of earnings growth have evolved amongst the three industries Semiconductors stand out for their wide changes in analyst sentiment. Semiconductor cycles have historically tended to be quite short, as new capacity is brought on line and before long new technologies emerge which require a new equipment cycle and new opportunities for profits. This goes some way to explain why the Semiconductor companies tend to trade at a discount to other IT companies.

Chart 12



However, if we look at the cumulative growth in forward earnings estimates over this period we see that despite the Semiconductors’ cycles, it is they that have seen the greatest growth in forecast earnings.

Given the industry trades on a multiple of just 15x and earnings look set to continue to grow at a good pace, this looks like an interesting balance of attractive value and growth. When you consider that a number of today’s important innovation themes all demand more sophisticated and faster semiconductors, whether it is big data, artificial intelligence, machine learning or virtual and augmented reality, etc., despite the inevitable cyclicality the medium to long-term outlook looks favourable for these companies.

Chart 13



This top-down analysis largely reflects what we have seen when we have been following our bottom-up stock selection process. Indeed, the two additions to the portfolio in January (KLA Tencor and LAM Research) are two attractively valued semiconductor companies with attractive growth prospects.

“We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.” Bill Gates

Outlook

The Global Innovators Fund has always sought to provide exposure to many of the exciting innovation growth themes and last year the market began to react to the potential of many of these themes. Recent earnings results from many of the companies held in the fund suggest that growth opportunities are still present and continue to expand, and we are pleased with the way that our holdings have been executing on their growth plans as well as their share price performance. We also hold better-quality companies than the broader market. The current portfolio has, on average, more cash than debt on the balance sheet and a cashflow return on investment of 16%, which is almost 40% higher than the broader market.

We do not attempt to predict future market directions, but we feel confident that the strong balance sheets and superior return on capital of the businesses held in the portfolio will serve the fund well over the long term.

Thank you for your continued support.

Portfolio Managers

Dr Ian Mortimer, CFA
Matthew Page, CFA

Analysts

Joshua Cole
Sagar Thanki

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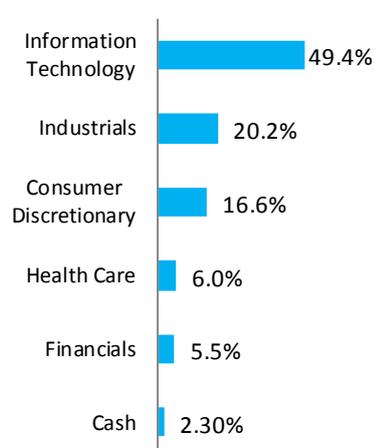
PORTFOLIO

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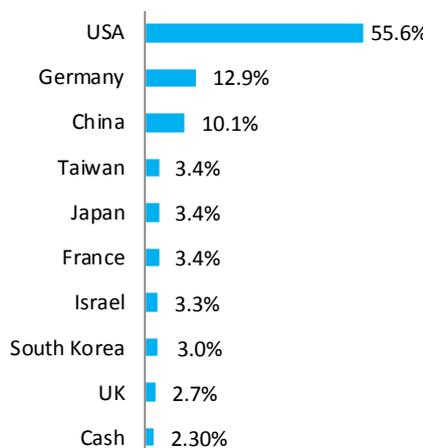
Fund top 10 holdings

Nvidia Corp	3.8%
Boeing	3.6%
Paypal	3.5%
Anta Sports Products	3.4%
Catcher Technology	3.4%
Fanuc Corp	3.4%
Schneider Electric	3.4%
Continental	3.4%
Alphabet	3.4%
AAC Technologies	3.3%
% of Fund in top 10	34.6%
Total number of stocks	30

Sector analysis



Geographic allocation



31/01/2018

Annualised % gross total return from strategy inception (GBP)

Guinness Global Innovators strategy*	13.25%
MSCI World Index	10.65%
IA Global sector average	9.38%

Discrete years % gross total return (GBP)

	Jan '14	Jan '15	Jan '16	Jan '17	Jan '18
Guinness Global Innovators strategy*	29.0	20.6	-2.2	34.6	20.8
MSCI World Index	12.6	17.7	1.1	32.7	11.9
IA Global sector average	9.5	12.6	-4.8	32.1	13.2

Cumulative % gross total return (GBP)

	1 month	Year-to-date	1 year	3 years	5 years	10 years
Guinness Global Innovators strategy*	0.4	0.4	20.8	59.1	147.4	274.1
MSCI World Index	0.2	0.2	11.9	50.3	99.1	175.7
IA Global sector average	0.7	0.7	13.2	42.6	75.7	122.3

RISK ANALYSIS

31/01/2018

Annualised, weekly, 5 years, in GBP	Index	Sector	Strategy*
Alpha	0	0.51	3.81
Beta	1	0.81	1.11
Information ratio	0	-0.36	0.93
Maximum drawdown	-14.03	-17.08	-17.14
R squared	1	0.80	0.87
Sharpe ratio	0.88	0.77	1.14
Tracking error	0	5.50	5.47
Volatility	12.16	11.06	14.50

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Source: Financial Express, bid to bid, gross total return, in GBP (0.99% OCF)

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Important information

Issued by Guinness Asset Management Limited, authorised and regulated by the Financial Conduct Authority.

This report is primarily designed to inform you about Guinness Global Innovators Fund. It may provide information about the Fund's portfolio, including recent activity and performance. It contains facts relating to the equity markets and our own interpretation. Any investment decision should take account of the subjectivity of the comments contained in the report.

This document is provided for information only and all the information contained in it is believed to be reliable but may be inaccurate or incomplete; any opinions stated are honestly held at the time of writing, but are not guaranteed. The contents of the document should not therefore be relied upon. It should not be taken as a recommendation to make an investment in the Fund or to buy or sell individual securities, nor does it constitute an offer for sale.

Risk

The Guinness Global Innovators Fund is an equity fund. Investors should be willing and able to assume the risks of equity investing. The value of an investment and the income from it can fall as well as rise as a result of market and currency movement, and you may not get back the amount originally invested. Details on the risk factors are included in the Fund's documentation, available on our website.

Documentation

The documentation needed to make an investment, including the Prospectus, the Key Investor Information Document (KIID) and the Application Form, is available from the website www.guinnessfunds.com, or free of charge from:-

- the Manager: Link Fund Administrators (Ireland) Ltd, 2 Grand Canal Square, Grand Canal Harbour, Dublin 2, Ireland; or
- the Promoter and Investment Manager: Guinness Asset Management Ltd, 14 Queen Anne's Gate, London SW1H 9AA.

Residency

In countries where the Fund is not registered for sale or in any other circumstances where its distribution is not authorised or is unlawful, the Fund should not be distributed to resident Retail Clients.

NOTE: THIS INVESTMENT IS NOT FOR SALE TO U.S. PERSONS.

Structure & regulation

The Fund is a sub-fund of Guinness Asset Management Funds PLC (the "Company"), an open-ended umbrella-type investment company, incorporated in Ireland and authorised and supervised by the Central Bank of Ireland, which operates under EU legislation. If you are in any doubt about the suitability of investing in this Fund, please consult your investment or other professional adviser.

Switzerland

The prospectus and KIID for Switzerland, the articles of association, and the annual and semi-annual reports can be obtained free of charge from the representative in Switzerland, Carnegie Fund Services S.A., 11, rue du Général-Dufour, 1204 Geneva, Switzerland, Tel. +41 22 705 11 77, www.carnegie-fund-services.ch. The paying agent is Banque Cantonale de Genève, 17 Quai de l'Île, 1204 Geneva, Switzerland.

Singapore

The Fund is not authorised or recognised by the Monetary Authority of Singapore ("MAS") and shares are not allowed to be offered to the retail public. The Fund is registered with the MAS as a Restricted Foreign Scheme. Shares of the Fund may only be offered to institutional and accredited investors (as defined in the Securities and Futures Act (Cap.289)) ('SFA') and this material is limited to the investors in those categories

Telephone calls will be recorded and monitored.

GUINNESS

ASSET MANAGEMENT

Guinness Asset Management Ltd is authorised and regulated by the Financial Conduct Authority

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