

Guinness Global Innovators Fund

Innovation | Quality | Growth | Conviction

INVESTMENT COMMENTARY – March 2021

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	£422m
AUM in strategy	£569m
Fund launch date	31.10.14
Strategy launch date	01.05.03

Managers	Dr. Ian Mortimer, CFA Matthew Page, CFA
-----------------	--

Analysts	Sagar Thanki Joseph Stephens
-----------------	---------------------------------

Performance 28.02.21

Cumulative % total return (GBP)	1 year	3 years	5 years	10 years
Strategy*	34.3	50.8	141.0	328.0
Index	18.2	34.0	92.8	186.0
Sector	23.1	33.9	90.6	150.0
Position in sector	50 /356	49 /308	19 /270	8 /182

Annualised % total return from strategy inception (GBP)

Strategy*	13.49%
Index	9.97%
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, total return, in GBP.



Summary performance

For the month of February, the Guinness Global Innovators Fund provided a total return of 0.52% (GBP) against the MSCI World Index net total return of 0.74% (GBP). Hence the fund marginally underperformed the benchmark by -0.22% (GBP). However, year to date, the fund has produced a total return of 0.07% (GBP) against the MSCI World -0.72% (GBP).

With nations in lockdown and vaccine rollouts, in many cases, continuing at a strong pace, equity markets drove higher in February with the re-opening of economies seeming a real possibility in the second half of 2021. However, market gains were tempered towards the end of the month as COVID-19 mutations made headlines, while a rise in bond yields on the expectation of higher inflation, sent equity markets down, led by more interest rate sensitive sectors such as IT. While the fund's overweight position to IT was a drag from an allocation perspective, strong stock selection from the fund's semiconductor holdings ultimately led to IT being the fund's main contributor to relative performance. Conversely, investors' rotation into Energy and Bank stocks on higher inflation expectations was a drag on performance with the fund owning no stocks in these areas.

While the fund currently sits in the 2nd quartile YTD versus peers, over all over periods the fund's performance has been very strong. The fund sits in the top quartile versus its IA Global Equity sector peers over 1, 3, 5, and 10 years.

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

	YTD	1 year	3 years	5 years	10 years
Global Innovators	0.07	34.32	50.77	140.95	328.02
Index	-0.72	18.17	33.95	92.80	186.04
Sector	0.30	23.10	33.89	90.59	149.96
Position in sector	175/375	50/356	49/308	19/270	8/182
Quartile	2nd	1st	1st	1st	1st

Source: Financial Express. Cumulative Total Return in GBP, as of 28th February 2021

February in review:

With vaccine rollouts underway, COVID-19 case numbers falling in many regions, and further government stimulus packages in the pipeline, investors turned their attention to the possibility of higher inflation and thus higher rates in the nearer term. The resultant increase in US 10Y yields caused a rotation out of the more interest-sensitive areas such as IT towards the end of the month.

Yield on 10-year U.S. Treasury note



Source: Tullett Prebon

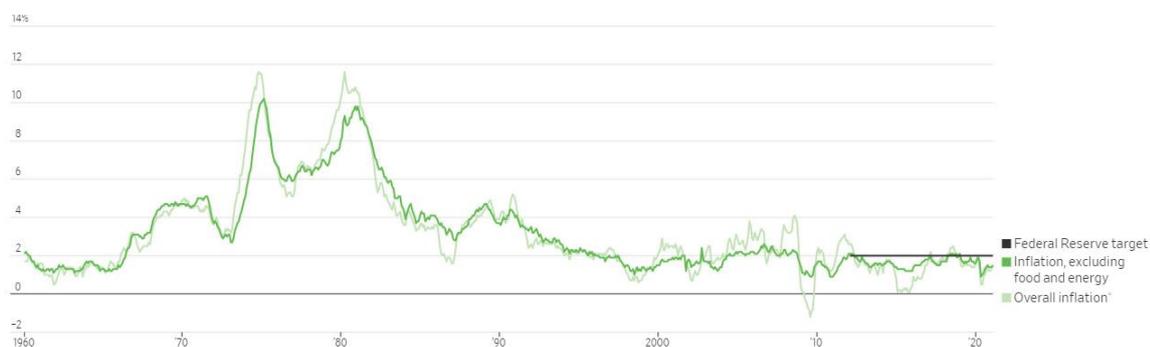
Future inflation implied by Treasury yields has risen sharply since a plunge in March



Source: Federal Reserve Bank of St. Louis

While this was a drag on the portfolio – with IT being the fund’s largest overweight exposure relative to the benchmark – the market’s focus on higher inflation should not necessarily be viewed as a negative. Inflation in the US has continued to trend below the US Fed’s 2% target even with quantitative easing post the financial crash unable to stimulate substantial increases in inflation. However, with unprecedented monetary and fiscal packages in response to the COVID-19 pandemic – far greater than those seen in the financial crisis – investors are now pricing in higher inflation in the next 5 years.

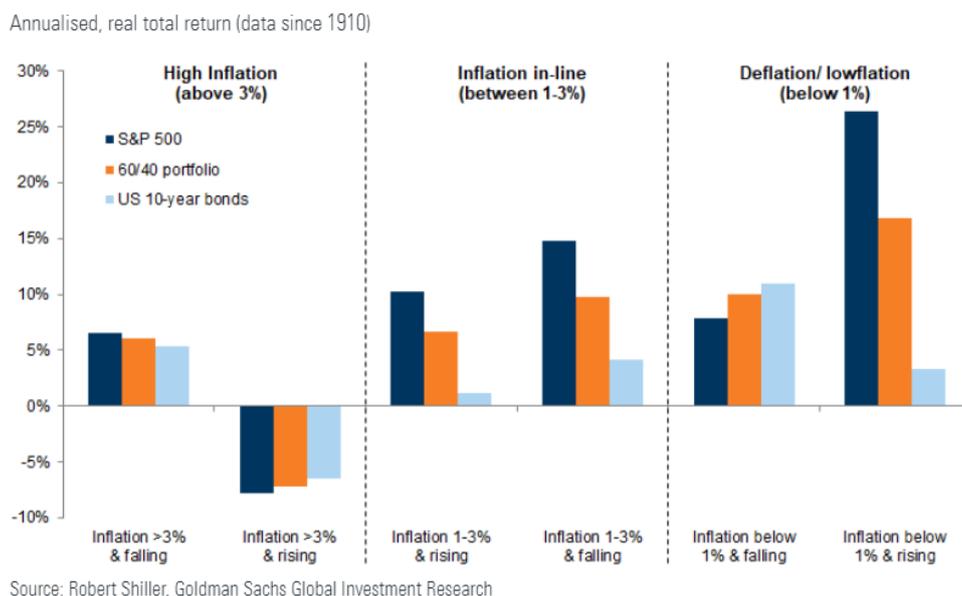
Inflation remains under Fed target



*Annual change in price index of personal consumption expenditures
Sources: U.S. Commerce Dept. (Inflation), Federal Reserve (target)

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

However, rising inflation expectations and thus interest rates, from moderate base levels, can be taken as a sign of positivity with economies returning to growth. What is more, history shows us there is reason to be optimistic from an equity perspective, with increases in inflation expectations from a moderate base, correlated with strong equity markets.



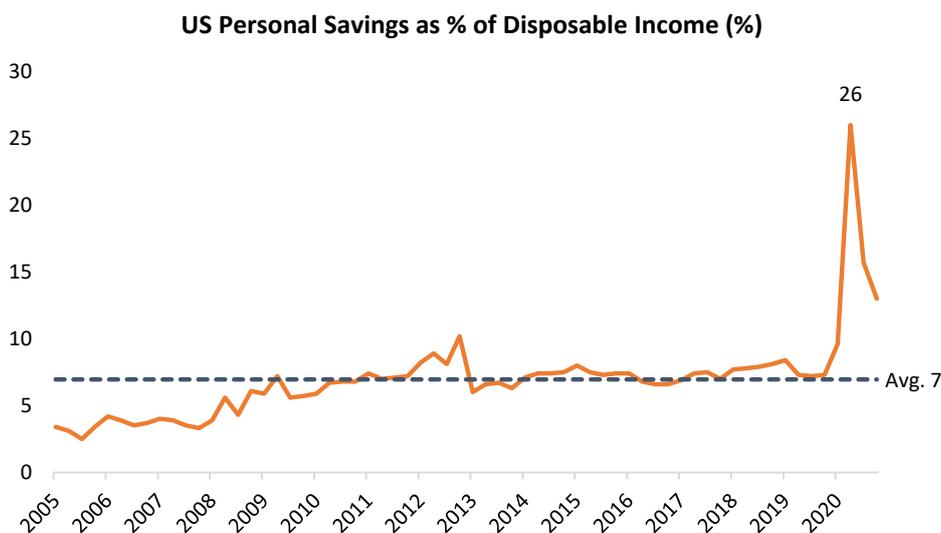
In addition, the economic growth outlook in the short to medium term continues to look very good.

Let us consider the equation for GDP:

$$\text{GDP} = \text{Consumption} + \text{Investment} + \text{Government spending} + \text{Net Exports}$$

Looking at some of the components we have:

- **Consumption:** The average consumer is flush with cash while the vaccine rollout and subsequent unlocking should unleash consumer spending.

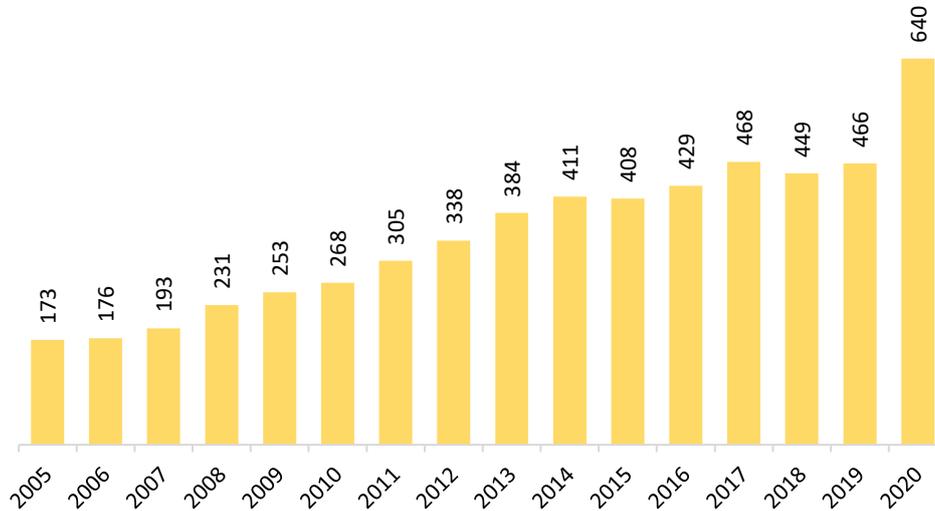


Source: Bloomberg in USD, as of 26th February 2021

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

- **Investment:** The average company also has ample cash on-hand having borrowed cheaply and will now need to invest in capex and R&D to maintain competitive edge, keep up with demand and restock inventory. S&P500 cash on balance sheets is up c 40% on 2019.

S&P 500 Cash & Equivalents (\$bn)



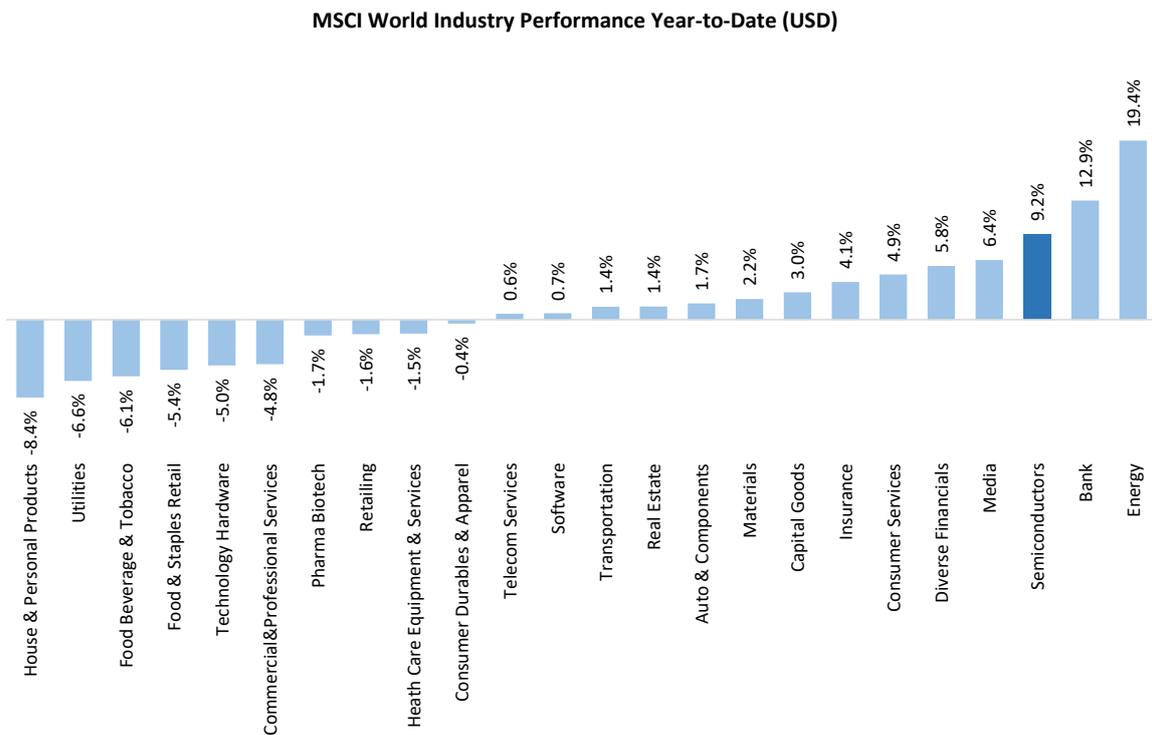
Source: Bloomberg in USD, as of 26th February 2021

- **Government Spending:** The US and European Fiscal stimulus plans are very large. The current Biden stimulus bill going through Congress is c\$1.9 trillion compared to US GDP of \$21.4 trillion. This is on top of the two previous bills which totalled \$3.1 trillion.

In all, there is good reason to be optimistic from an equity perspective as the world tentatively reopens and a new normality ensues, with the potential unlocking of pent-up demand/spending.

Semiconductors leading the market recovery:

Over the past year, we have seen COVID-19 accelerate many of the innovative changes that were taking place across sectors from contactless payments and cloud computing to video streaming and robotics. The key enabler of these technologies is semiconductors. Year-to-date, the semiconductor industry has continued in its strength with the majority of businesses reporting strong demand, while short-term chip shortages only add to a bullish outlook.



Source: Bloomberg in USD, as of 26th February 2021

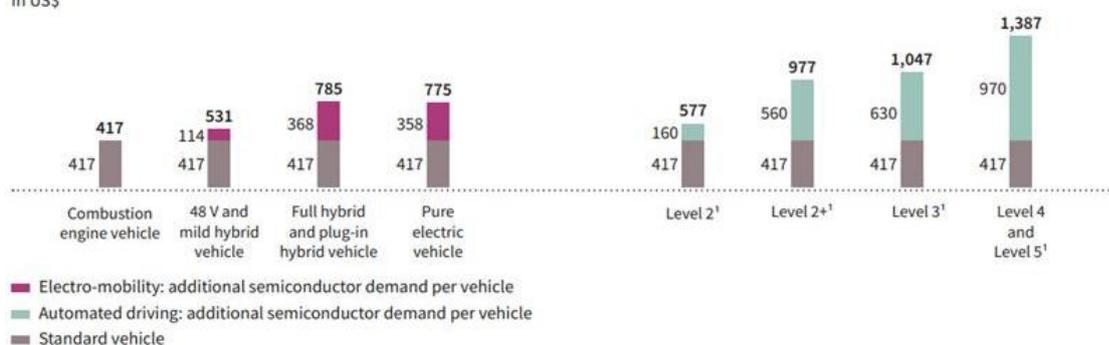
Indeed, there is currently a short-term supply issue related to COVID-19, particularly within the auto industry, as a consequence of a number of factors:

1. The automotive industry cut their orders for semiconductors as they saw demand for new cars fall in q2 2020. Now their suppliers have allocated capacity to other industries.
2. Mass working from home has led to the highest growth rate for PCs in a decade, as well as TVs and monitors
3. Demand for 5G smartphones has doubled
4. Increased demand for cloud applications means more demand from datacentres
5. Cryptocurrency mining has rebounded as cryptocurrencies have rallied
6. COVID-19 caused supply chain disruption

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

Looking closer at why semiconductor foundries, such as TSMC, are unwilling or unable to allocate capacity back to the automotive industry, we find that the automotive industry does not have substantial bargaining power. For example, Apple’s iPhone silicon needs are greater than those of the entire automotive industry, and the iPhone only constitutes 25% of the smartphone market. So, any individual auto manufacturer does not have much bargaining power. Semiconductor fabrication plants (or fabs) also want to be running at full capacity and as such cannot redistribute capacity based on short-term supply imbalances in favour of more secure long-term contracts. However, it should be noted that the automotive industry will be an increasingly important driver of semiconductor demand, as the volume and sophistication of silicon per vehicle increases with the transition to electric and more automated transportation. According to Infineon, one of the leading automotive semiconductor suppliers and a fund holding, the US\$ semiconductor content per vehicle should increase almost 2x for pure electric vehicles vs traditional combustion engine vehicles, while Level 4 and 5 autonomous vehicles will demand 3x the semi content per vehicle.

Additional semiconductor demand per vehicle raised by electro-mobility and automated driving in US\$

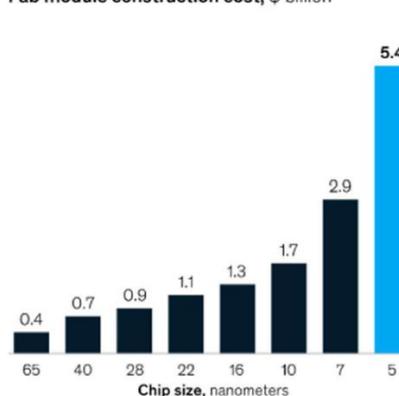


¹ Refers to the defined degree of automatization.

Sources: Strategy Analytics, "Automotive Semiconductor Content," August 2019; IHS Markit, Automotive Group, "Alternative propulsion forecast," September 2019; Infineon

Further still, as we have discussed before, almost all of our Innovation themes point towards increasing demand for semiconductors. There is a growing realisation in the US and Europe of how strategically critically important it is to have leading edge semiconductor manufacturing capacity closer to home. The world is extremely reliant on TSMC’s Taiwan-based plants which, given what China has done in Hong Kong, is worrying certain policymakers. However, the cost and expertise to build new cutting-edge fabs is a huge barrier, with the estimated cost to construct a leading-edge 5nm fab module being almost double the cost for 7nm.

Fab module construction cost, \$ billion



Source: McKinsey estimates

The US Semiconductor industry estimates it will need \$50b funding from Congress to make it competitive. This might not even be enough if you consider TSMC is going to spend \$28b on CAPEX in 2021 alone. Currently the “Creating Helpful Incentives to Produce Semiconductors for America Act (CHIPS)” calls for \$10b for a new federal grant program.

Either way the outlook for Semiconductor equipment companies remains very attractive:

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

Guinness Global Innovators Fund

1. They have very high barriers to entry given the increasing levels of capital and expertise required
2. They are quasi-monopolies
3. They have very robust balance sheets (LAM Research and Applied Materials have more cash than debt, for example)
4. They are growing rapidly, and profitably – ROC of US Semiconductor equipment companies has been growing since 2013
5. Valuations are not demanding (particularly relative to other parts of the IT sector)

We thank you for your continued support.

Portfolio Managers

Dr Ian Mortimer, CFA
Matthew Page, CFA

Analysts

Joseph Stephens
Sagar Thanki

Data sources

Fund performance: *Financial Express, Total return in GBP*

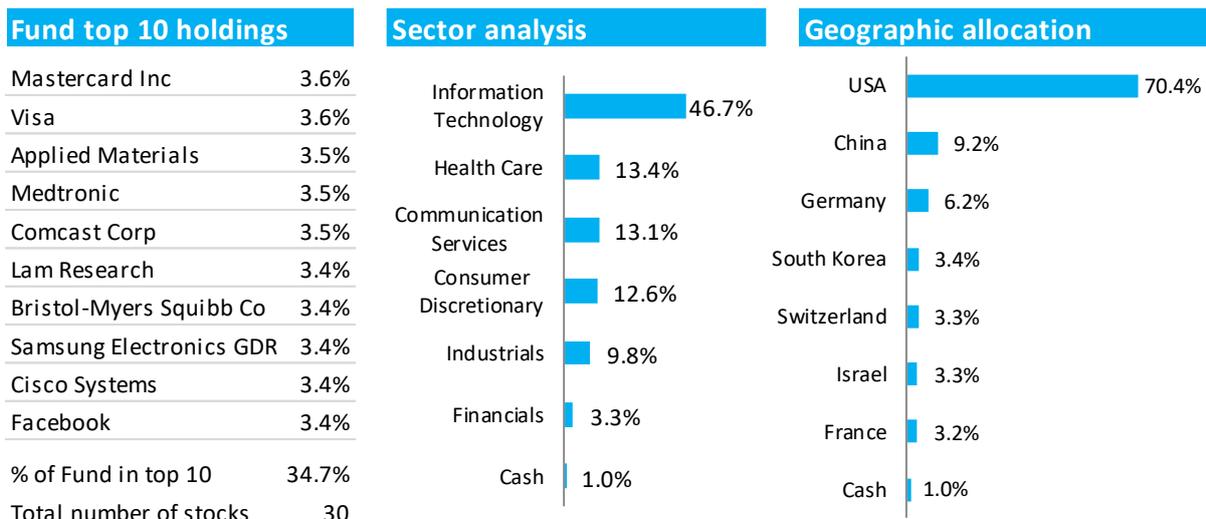
Index and stock data: *Bloomberg*

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

Guinness Global Innovators Fund

PORTFOLIO

28/02/2021



28/02/2021

Annualised % total return from strategy inception (GBP)

Guinness Global Innovators strategy*	13.49%
MSCI World Index	9.97%
IA Global sector average	9.38%

Discrete years % total return (GBP)

	Feb '21	Feb '20	Feb '19	Feb '18	Feb '17
Guinness Global Innovators strategy*	34.3	17.7	-4.7	18.1	35.4
MSCI World Index	18.2	8.9	4.0	6.0	35.8
IA Global sector average	23.1	6.9	1.7	8.5	31.2

Cumulative % total return (GBP)

	1 month	Year-to-date	1 year	3 years	5 years	10 years
Guinness Global Innovators strategy*	0.5	0.1	34.3	50.8	141.0	328.0
MSCI World Index	0.7	-0.7	18.2	34.0	92.8	186.0
IA Global sector average	0.4	0.3	23.1	33.9	90.6	150.0

RISK ANALYSIS

28/02/2021

Annualised, weekly, 5 years, in GBP	Index	Sector	Strategy*
Alpha	0	1.99	4.62
Beta	1	0.83	1.06
Information ratio	0	-0.03	0.72
Maximum drawdown	-24.58	-21.61	-22.23
R squared	1	0.86	0.85
Sharpe ratio	0.66	0.72	0.90
Tracking error	0	5.89	6.97
Volatility	15.33	13.79	17.59

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.

Source: Financial Express, bid to bid, total return, in GBP. Fund Y class composite (0.99% OCF). *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 investment team using the same investment process as applied to the UCITS version. The past performance of the US mutual fund is not indicative of the future performance of Guinness Global Innovators Fund. Fund returns are for share classes with a current Ongoing Charges Figure (OCF) stated above; returns for share classes with a different OCF will vary accordingly

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise as a result of market and currency fluctuations.

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 Manager Solutions (Ireland) Limited, 2 Grand Canal Square, Grand Canal Harbour, Dublin 2, Ireland; or,
- the Promoter and Investment Manager: Guinness Asset Management Ltd, 18 Smith Square, London SW1P 3HZ.

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

This is an advertising document. 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

Tel: +44 (0) 20 7222 5703

Email: info@guinnessfunds.com

Web: guinnessfunds.com