

Guinness Global Innovators Fund

Innovation | Quality | Growth | Conviction

INVESTMENT COMMENTARY – September 2020

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 | £266m |
| AUM in strategy | £410m |
| 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 **31.08.20**

| Cumulative % total return (GBP) | 1 year | 3 years | 5 years | 10 years |
|--|-------------------|-------------------|-------------------|------------------|
| Strategy* | 26.2 | 45.9 | 138.5 | 407.2 |
| Index | 6.2 | 27.5 | 88.6 | 218.4 |
| Sector | 6.7 | 24.3 | 75.9 | 166.2 |
| Position in sector | 20 /332 | 43 /293 | 12 /260 | 3 /173 |

Annualised % total return from strategy inception (GBP)

| | |
|------------------|---------------|
| Strategy* | 13.27% |
| Index | 9.84% |
| Sector | 9.03% |

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 August, the Guinness Global Innovators Fund provided a total return of 3.67% (in GBP) against the MSCI World Index net total return of 4.57%. Hence the fund marginally underperformed the benchmark by 0.9%. This year, the fund has produced a total return of 20.00% against the MSCI World's 4.22%. The fund remains 16.78% ahead of the MSCI World year to date (in GBP).

Equity markets continued in their remarkable ascent following the drawdown in March with a broadly solid earnings season (albeit from low expectations) and the prospect of low interest rates for longer in the US, offsetting some divergent regional COVID-19 case numbers. Indeed, as the number of US cases continued to fall following their second spike, cases in Europe took a turn for the worse as France and Spain case numbers came back close to their previous highs. To summarise fund attribution:

- Nvidia was the fund's best performer over the month (up 26.0% in USD) as it continued its strong year with CEO Jensen Huang recently outlining the firm's plan to provide the full technology stack needed to run data centres.
- Healthcare was the fund's largest sector contributor on positive stock selection. Medtronic (up 11.4% USD) and Bristol-Myers Squibb (up 6.0% in USD) were the stand-out performers following better results than expected after relative weakness this year. Indeed, Medtronic's CEO pointed to a faster recovery than expected from the depths of the pandemic experienced in April.

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

- Information Technology, however, was a drag on performance primarily due to weakness in our semiconductor equipment names alongside the continued rally in Apple shares which we do not own (and which is the largest position in the benchmark).
- From a regional perspective, the fund's exposure to Asia Pacific was the main drag on performance with weaker stock selection arising from Samsung (down 2.4% in USD) and Tencent (down 0.7% in USD) in particular.

Over both the short and long term, it is pleasing to see that the fund continues to deliver strong performance versus its IA Global Equity Sector peers.

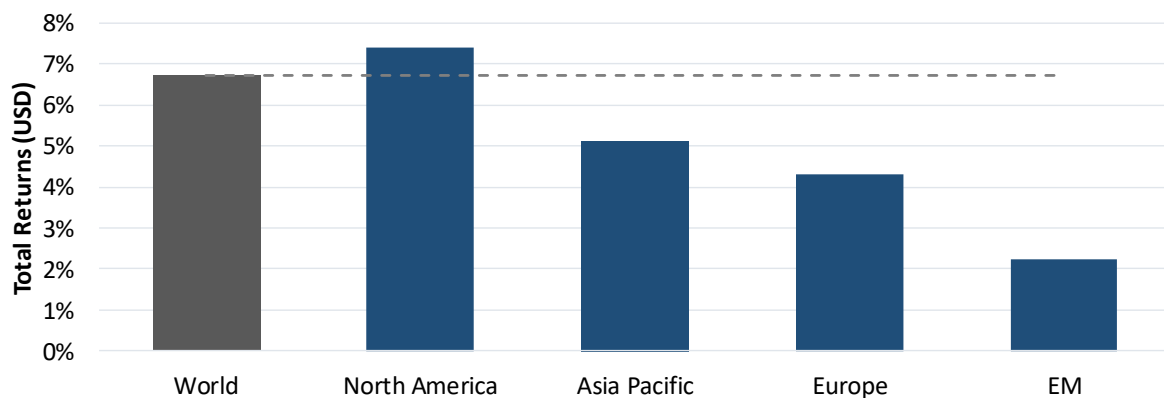
| | YTD | 1 year | 3 years | 5 years | 10 years |
|---------------------------|--------|--------|---------|---------|----------|
| Global Innovators | 20.00 | 26.17 | 45.93 | 138.49 | 407.17 |
| Index | 4.22 | 6.22 | 27.45 | 88.56 | 218.44 |
| Sector | 4.56 | 6.72 | 24.33 | 75.94 | 166.15 |
| Position in sector | 30/339 | 20/332 | 43/293 | 12/260 | 3/173 |
| Quartile | 1st | 1st | 1st | 1st | 1st |

Source: Financial Express. Cumulative Total Return in GBP, as of 31st August 2020

August in review

Although the number of cases of COVID-19 continued to rise globally, there was support for equity prices particularly from the US Federal Reserve which helped to lift the MSCI World to its best August return since 1986. The Fed announced a change in how the FOMC looks to adjust interest rates. Specifically, the FOMC now seeks to achieve an *average* inflation of 2% over time (although no time period was specified). This is a divergence with the previous method of pre-emptively adjusting rates and may allow inflation to run over 2% following a period of sub-2% inflation. All this made for support for equity prices as markets noted interest rates may be lower for longer. This had the knock-on effect of continuing to drive the US dollar weaker, which will benefit US sectors such as IT and Energy which derive higher proportions of revenue from abroad. However, a weaker US dollar is a worry for the European Central Bank (ECB), as a relatively stronger Euro will weigh on exports, drag down asset prices and force the ECB's hand into further stimulus. This, in addition to regional rises in COVID-19 cases from EU countries including Spain and France, led to a relatively weak performance from European stocks, while US stocks benefitted.

MSCI World regional performance: 31st July 2020 – 31st August 2020

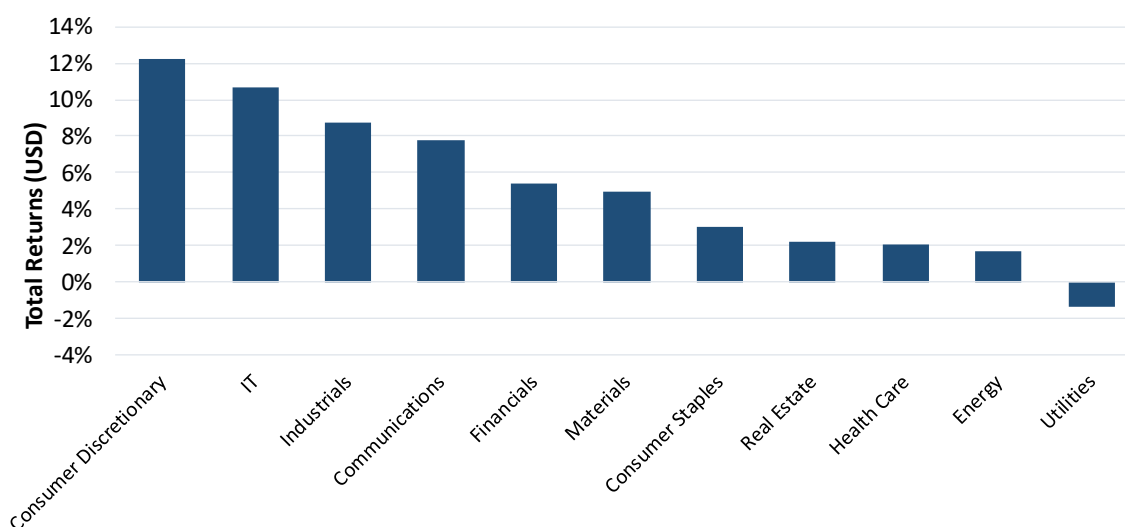


Source: Bloomberg. Data as of 31st August 2020

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.

In Asia, Japanese prime minister Abe announced his resignation due to his deteriorating health. In doing so he cut short his second term as prime minister after seven years and eight months in the post (making him Japan’s longest-serving prime minister) and ended the era of ‘Abenomics’. In China, the US continues to protect its national interests with a new set of sanctions announced on Chinese company Huawei. These require companies to obtain a licence before selling any microchip to Huawei made using US equipment or software. This is an escalation from previous sanctions that allowed the sale of chips to the business as long as they were not designed by Huawei or its subsidiaries. The news, cited as a ‘death sentence’ for the Chinese business by some analysts, was taken as a negative for the fund’s semiconductor equipment manufacturers in general as analysts looked to a reduction in demand for US equipment from the Chinese market. This made Lam Research (down 10.8% in USD) and Applied Materials (down 3.9% in USD) two of our bottom three performers over the month.

MSCI World sector performance: 31st July 2020 – 31st August 2020



Source: Bloomberg. Data as of 31st August 2020

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.

Opportunities in Innovation

The Guinness Global Innovators Fund was set up over 15 years ago to invest in quality businesses exposed to innovative themes that are transforming industries – be it artificial intelligence, cloud computing or robotics & automation. These businesses can be seen to exhibit wider profit margins, faster growth and less susceptibility to cyclical pressures. And while COVID-19 and subsequent lockdowns have slowed or halted sales for many businesses, we have seen the acceleration of many of the innovation transformations we seek in the fund – from businesses operating remotely and improving the resiliency of supply chains, to consumers increasingly shopping online (e-commerce) and using cashless payments.

In our recent paper, *Opportunities in Innovation*, we take a closer look at the fund’s nine core innovation themes, giving colour to the rationale behind the investment prospect and examining the opportunity set within the fund’s investible universe.

[Read the paper in full here](#)



In the following pages, we present an extract from the paper, looking specifically at the theme of cloud computing.

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.



CLOUD COMPUTING

Sub Themes: Cyber Security, Networking, Software-as-a-Service

Cloud computing can be defined as the delivery of computing services – such as servers, storage, databases, networking, software, and analytics – over the internet (“the cloud”). The service, provided by cloud vendors including Amazon Web Services (AWS) and Microsoft Azure, gives companies access to faster, more flexible resources and economies of scale. Typically, companies such as SAP or Dropbox, which deliver their products to consumers using the cloud, pay cloud vendors including AWS only for the cloud resources they use – not dissimilar to your electricity bill. This helps to create lower fixed costs by eliminating expenditure incurred in setting up their own on-site data centres, while giving them the flexibility to increase usage as they scale. Cloud computing is enabling businesses across industries to deliver their products and services on-demand: from file storage and backups to video gaming, data analytics, and video conferencing.

As the use of the cloud has expanded, we have seen the increasing use of Subscriptions-as-a-Service (SaaS) business models. These new models charge consumers periodic fees for the right to use their product or service, as opposed to one (much larger) license payment. This enables companies to deliver automatic updates

or the latest content as soon as they’re available, while receiving smoother payments throughout the year with higher retention rates (you’re more likely to keep paying your \$8+ a month Netflix fee as opposed to repeating a larger one-off fee to get hold of the latest content). Adobe, for instance, has been transitioning consumers from perpetual licences to subscriptions for its various software packages, and has consequently seen recurring revenue grow to 89% of revenues in 2019, whilst operating margins have expanded from 18.4% in 2015 to 29.2% in 2019.

As consumers increasingly demand greater user experiences and as firms increasingly see the benefit in transferring their products and services to the cloud, the opportunity for long-term growth across the value-chain is set to be immense. The growth in data volume will require greater quantities of more sophisticated networking hardware and software in data centres to manage the flow of data, whilst the increasing propensity to store data in the cloud will increase the need for more robust cyber security systems. This gives rise to numerous investment opportunities across the cloud computing value chain, from your upstream data centre providers to end market SaaS business models.

CAPITAL INTENSITY



There is a large capex requirement to build vast data centres capable of aggregating and computing enormous quantities of data (AWS spent \$13bn on cloud capex in 2019 alone).

However, the beneficiaries tend to have more asset-light models with no need to build on-site data centres.

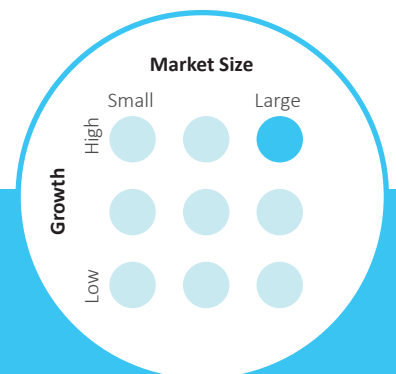
R&D, however, is key to continue developing this technology: from optimisation of data flow, to reducing the vast energy consumption and cooling systems required to operate the centres (Microsoft’s project Natick is testing the feasibility of subsea data centres powered by offshore renewable energy).

BUSINESS MODEL



With few players able to afford the large upfront costs involved in designing and building vast data centres, the market is currently dominated by several vendors which are able to enjoy healthy margins (AWS operating margin 26% 2019 vs MSCI World 12%). Further, SaaS businesses are able to lower their long-term operating costs by utilising the cloud, thereby expanding their margins. Cloud computing poses vast opportunities across industries: not only is it being harnessed by the big players in gaming and video streaming, but also in mission-critical applications that enable data access and remote working, which ultimately enable a business to continue operating. This leads us to our low cyclicality rating.

OPPORTUNITY



As the world continues to produce ever increasing volumes of data, the need for greater aggregation, storage and computational power grows.

Additionally, as a growing number of businesses move to cloud-based products and services, the need for this technology becomes vital across applications – from streaming content to a business’s operational software. Indeed, AWS has grown revenues at 35% CAGR over the last 5 years. These reasons point to a considerable market size together with significant growth rates.

UNIVERSE STATISTICS

| DESCRIPTION | QUALITY | GROWTH |
|--------------------------------|-------------------|--------------------|
| Total Number of Companies: 114 | Gross Margin: 57% | R&D/Sales: 12% |
| Market Cap (\$bn): 14 | ROC: 13% | Capex/Sales: 3% |
| Company Age (years): 21 | NET D/E: 4% | 5Y Sales CAGR: 10% |

All data median, unless otherwise stated

OPPORTUNITY SET

The firms set to yield the greatest rewards are the **cloud vendors**. These are the companies with the substantial financial ability required to build new data centres capable of delivering content on-demand on a mass scale. The market is currently comprised of a handful of players including AWS, Microsoft Azure, Alibaba Cloud, and Google Cloud Platform (with AWS and Azure being the

dominant players). These companies generate large economic moats as they benefit from economies of scale realised from providing cloud computing to an increasing number of businesses, while large upfront costs disincentivise any potential new entrants.



Another set of companies highly exposed to growth in cloud computing is a group that can be collectively described as the **enablers**. In order to set up and manage the vast quantities of data in the cloud, the cloud vendors must use highly sophisticated equipment: networking companies such as Cisco and Arista produce switches and routers along with optimisation software to

manage the flow of data, while semiconductor companies design the ‘brains’ of the data centres – from central processing units (CPU) sold by Intel, to the more advanced so-called accelerator chips including field programmable gate arrays (FPGA) and graphic processing units (GPU) produced by Xilinx and Nvidia respectively.



Firms willing to transfer their products and services to the cloud-based equivalents can benefit from a more asset-light business model, higher recurring revenues, and subsequent opportunity for margin expansion. These **beneficiaries** are diverse and span varying industries, from Netflix (delivering your videos on-demand) to SAP (customer relationship management software) and Adobe (cloud-based creative software). Additionally, with the increased

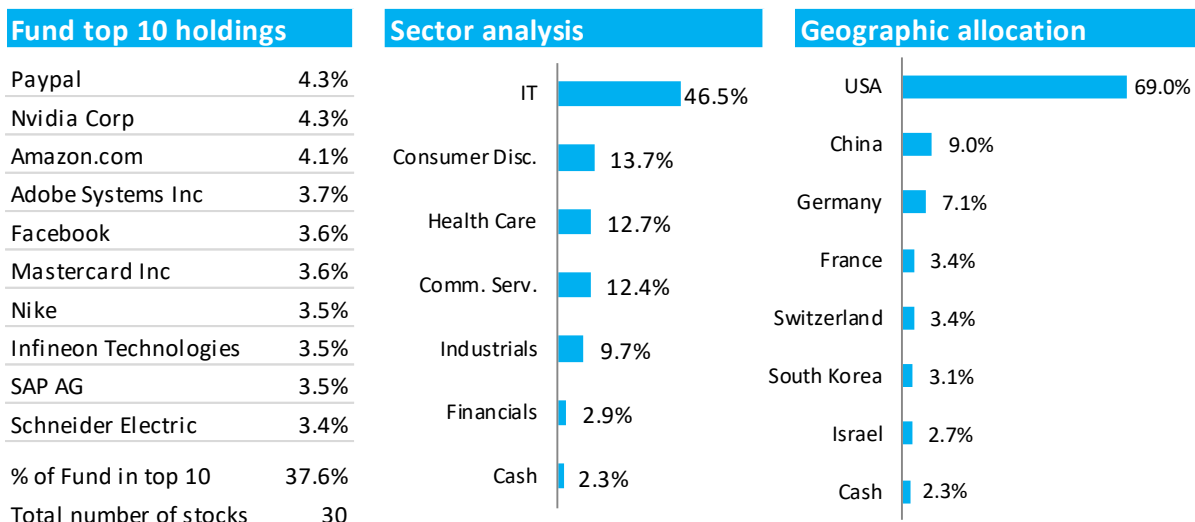
use of the cloud to store and transfer data, this is driving demand for more sophisticated cyber security software. With data privacy ever more at the forefront of consumers’ minds as a result of firms increasingly being targeted by cyber-attacks – the attack on Sony Pictures in 2014 being particularly memorable – firms such as Cisco and Fortinet are benefitting from the growing need for businesses to protect their consumers’ data.



Guinness Global Innovators Fund

PORTFOLIO

31/08/2020



31/08/2020

Annualised % total return from strategy inception (GBP)

| | |
|--------------------------------------|--------|
| Guinness Global Innovators strategy* | 13.27% |
| MSCI World Index | 9.84% |
| IA Global sector average | 9.03% |

Discrete years % total return (GBP)

| | Aug '20 | Aug '19 | Aug '18 | Aug '17 | Aug '16 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Guinness Global Innovators strategy* | 26.2 | 3.3 | 12.0 | 26.2 | 29.5 |
| MSCI World Index | 6.2 | 7.0 | 12.1 | 18.1 | 25.2 |
| IA Global sector average | 6.7 | 5.4 | 10.5 | 17.6 | 20.3 |

Cumulative % total return (GBP)

| | 1 month | Year- to-date | 1 year | 3 years | 5 years | 10 years |
|--------------------------------------|------------|------------------|-----------|------------|------------|-------------|
| Guinness Global Innovators strategy* | 3.7 | 20.0 | 26.2 | 45.9 | 138.5 | 407.2 |
| MSCI World Index | 4.6 | 4.2 | 6.2 | 27.5 | 88.6 | 218.4 |
| IA Global sector average | 3.7 | 4.6 | 6.7 | 24.3 | 75.9 | 166.2 |

RISK ANALYSIS

31/08/2020

| Annualised, weekly, 5 years, in GBP | Index | Sector | Strategy* |
|-------------------------------------|--------|--------|-----------|
| Alpha | 0 | 0.84 | 4.53 |
| Beta | 1 | 0.82 | 1.06 |
| Information ratio | 0 | -0.24 | 0.73 |
| Maximum drawdown | -24.58 | -21.61 | -22.23 |
| R squared | 1 | 0.83 | 0.85 |
| Sharpe ratio | 0.68 | 0.63 | 0.91 |
| Tracking error | 0 | 6.44 | 6.87 |
| Volatility | 15.48 | 13.88 | 17.75 |

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 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

Source: Financial Express, bid to bid, total return, in GBP

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