For professional clients only. Not to be distributed to retail clients. This is a marketing communication. Please refer to the prospectus of the fund and to the key investor information document before making any final investment decisions.
Unless otherwise stated all data is as at 30 September 2022.

Q3 2022

Thematic ETFs Performance

Key risk
The value of an investment and any income taken from it is not guaranteed and can go down as well as up;
You may not get back the amount you originally invested. Simulated past performance is not a guide to the future.
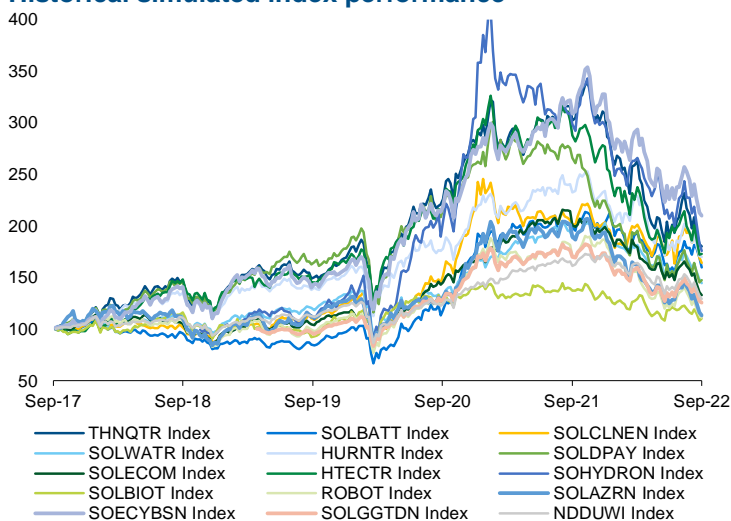
Contents

L&G Thematic ETFs

Performance commentary

Thematic strategies fell in the third quarter of 2022, with the exception of battery value-chain. Hydrogen economy and e-commerce logistics weighed most on performance, while cyber security retreated the least, followed by artificial intelligence. Other themes fell in line with equity markets.

Visit lgim.com/uk-etf for further information and latest updates.

Historical simulated index performance*

Legend:
- THNQTR Index
- SOLBATT Index
- SOLCLNEN Index
- SOLWATR Index
- HURNTR Index
- SOLDPAY Index
- SOLECOM Index
- HTECTR Index
- SOHYDRON Index
- SOLBIOT Index
- ROBOT Index
- SOLAZRN Index
- SOECYBSN Index
- SOLGGTDN Index
- NDDUWI Index

*The back-tested index data have been sourced from the index providers; they are based on what they perceive to be reasonable assumptions and objective data.

Rolling 12 month performance to 30-09-2022

Index ticker	ETF ticker	2017	2018	2019	2020	2021	2022
THNQTR Index	AIAI	38.4%	48.6%	2.1%	50.5%	33.4%	-40.2%
SOLBATT Index	BATT	32.2%	-3.9%	-11.4%	39.1%	68.5%	-19.9%
SOLCLNEN Index	RENW	17.4%	2.3%	8.2%	36.2%	34.5%	-18.7%
SOLWATR Index	GLUG	18.9%	14.2%	7.0%	8.7%	43.4%	-23.0%
HURNTR Index	USPY	9.7%	36.7%	3.0%	27.6%	29.6%	-26.2%
SOLDPAY Index	DPAY	38.9%	46.8%	12.8%	29.8%	23.2%	-43.9%
SOLECOM Index	ECOM	23.0%	5.2%	0.0%	38.4%	38.5%	-34.1%
HTECTR Index	DOCT	34.3%	50.0%	-1.1%	50.1%	31.1%	-40.0%
SOHYDRON Index	HTWO	-	-	-	77.7%	49.9%	-41.7%
SOLBIOT Index	BIOT	17.8%	18.0%	-20.6%	40.9%	4.5%	-19.1%
ROBOT Index	ROBO	39.4%	9.4%	-8.2%	27.1%	35.8%	-35.2%
SOLAZRN Index	LAZR	56.7%	11.6%	1.8%	16.6%	45.8%	-40.6%
SOECYBSN Index	ESPY	16.3%	41.9%	0.5%	53.7%	40.6%	-31.3%
SOLGGTDN Index	THMZ	-	-	-	34.4%	31.7%	-26.2%
NDDUWI Index	MSCI World	18.2%	11.2%	1.8%	10.4%	28.8%	-19.6%

Simulated past performance is not a guide to the future. All values are based in USD; as of close 30-Sep-22.
Performance is based on index levels gross of fees but net of dividend withholding taxes, where
applicable. The effect of fees and charges would reduce the returns shown.

Key risk

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You may not get back the amount you originally invested. Simulated past performance is not a guide to the future.

Macro update

Economy and policy

The third quarter of 2022 was busy with central bank policy meetings and the ongoing narrative around elevated energy prices. The hawkish stance maintained by major central banks, sustained inflation and the ongoing war with Russia kept volatility high.

Fiscal and monetary stimulus: The Federal Reserve and the Bank of England raised rates twice to 3-3.25% and 2.25%, respectively, and the European Central Bank hiked rates by 75 basis points. New UK Prime Minister Liz Truss announced a package of unprecedented fiscal support that triggered a spike in UK government bond yields and pushed the central bank to restart its gilt purchase programme.

CLIMATE NEWS

A Benchmark Mineral Intelligence analysis found that the battery industry needs to invest $200 billion in gigafactories to meet growing demand for electric vehicles and energy storage by 2030, and that demand for lithium-ion batteries is expected to increase sixfold by the end of the decade compared with 2021.

Separately, the International Energy Agency's Tracking Clean Energy Progress report found electric vehicles are the only energy system component, along with lighting, out of 55, that is on track with the net zero by 2050 scenario trajectory.
Source: Benchmark Mineral Intelligence, July 2022; IEA, May 2022

Global Electric Car Stock, 2010 – 2021
BEV (Battery Electric Vehicles) and PHEV (Plug-in Hybrid Electric Vehicles)
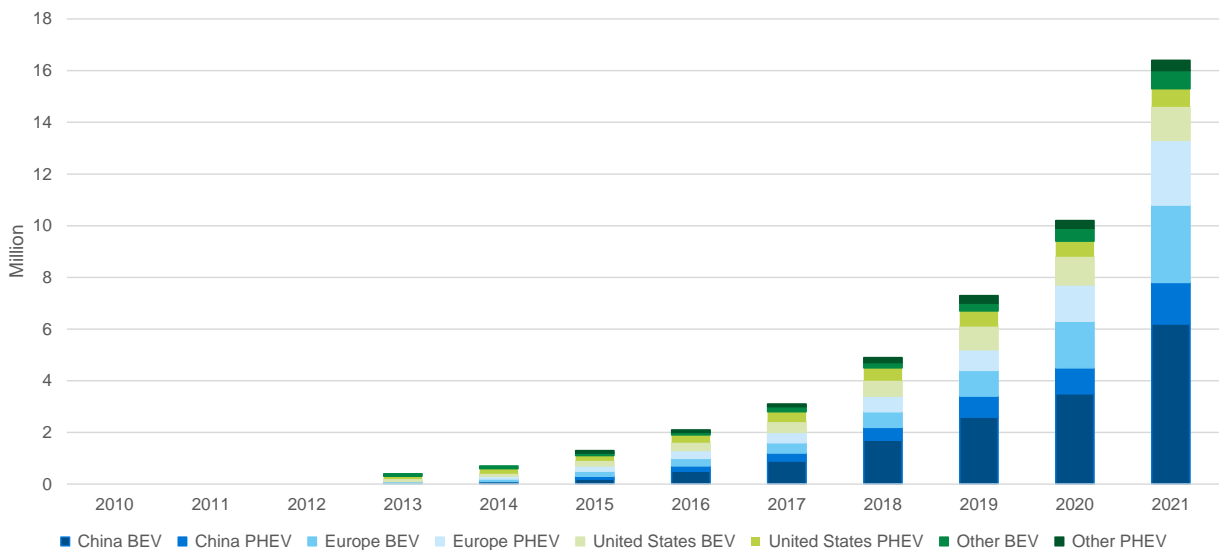
Source: IEA, May 2022

Source: LGIM, Bloomberg, Benchmark Mineral Intelligence, IEA.

For illustrative purposes only. The above information does not constitute a recommendation to buy or sell any security

Macro update

Investment themes

Artificial Intelligence – One of the biggest events of the quarter was the passage of the CHIPS Act in the US, which aims at reshoring and new production of cutting-edge and legacy (automotive) semiconductor chips. $52.7 billion out of the $280 billion worth of funding for the next 10 years will be dedicated to semiconductor manufacturing, R&D and workforce development, and $24 billion to tax credits for chip production. The semiconductor market is expected to double to $1 trillion by 2030.
Source: ROBO Global®

Clean Water – During the very hot summer we saw several droughts and their consequences. Desalination, the process that takes seawater and transforms it into drinking water, and wastewater treatment and reuse are critical solutions that can ensure supplies of fresh water where it is most needed.
Source: Global Water Intelligence

Hydrogen Economy – With the US publishing a draft of its Hydrogen Strategy over the quarter, the number of countries with a national hydrogen strategy has risen to 35. Seventeen countries are preparing one, three are supporting pilot and demonstration projects, and eight are having initial policy discussions. The number is on the rise.
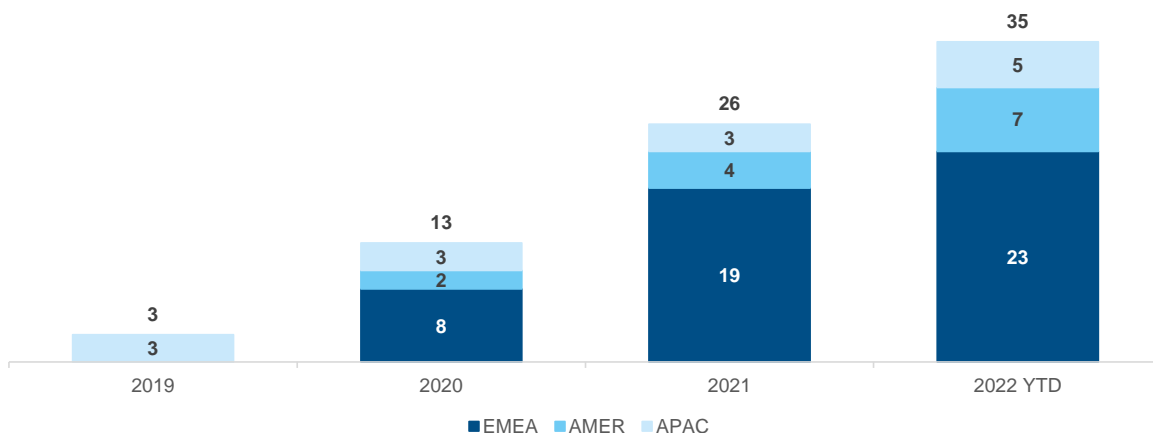*Source: BNEF*

Did you know?

Photonics, the science of harnessing light to benefit humankind, is one of the European Commission's six Key Enabling Technologies of the 21st century that can increase industrial innovation to address societal challenges and create advanced and sustainable economies. Lasers and sensors are key segments in the optical technology and photonics value-chain.
Source: LGIM

Total number of countries with H2 strategies

Year	EMEA	AMER	APAC	Total
2019			3	3
2020	8	2	3	13
2021	19	4	3	26
2022 YTD	23	7	5	35

■ EMEA ■ AMER ■ APAC

Source: BNEF, September 2022

Source: LGIM, ROBO Global®, Global Water Intelligence, BNEF.

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ETF Launches

In September we launched three new thematic ETFs. As we have continued to build our thematic ETF range, we have sought to provide investors with purer and differentiated access to new and emerging themes that are shaping the future.

L&G Emerging Cyber Security ESG Exclusions UCITS ETF

The L&G Emerging Cyber Security ESG Exclusions UCITS ETF aims to track the performance of the Solactive Emerging Cyber Security Index and provides exposure to companies engaged in the cyber security industry.

This ETF will focus on emerging and high growth segments, such as hardware security, threat intelligence and blockchain enabled security solutions, as well as cloud and network related security solutions.

L&G Optical Technology & Photonics ESG Exclusions UCITS ETF

Optical Technology & Photonics is recognized as one of the six key enabling technologies of the 21st century by the European Commission. The L&G Optical Technology & Photonics ESG Exclusions UCITS ETF aims to track the performance of the Solactive EPIC Optical Technology & Photonics Index NTR and provides exposure to companies engaged in the global optical technology and photonics value-chain.

Photonics is the science of creating, manipulating, transmitting and detecting light. However, its far-reaching impact is often overlooked. The technology has a wide range of applications in multiple different industries and will have a leading role in emerging segments like quantum technologies.

L&G Global Thematic ESG Exclusions UCITS ETF

The L&G Global Thematic ESG Exclusions UCITS ETF aims to track the performance of the Solactive L&G Global Thematic Index and provides direct exposure to the underlying equity securities included in thematic funds.

As of October 2022, this will combine nine of our investment themes in the areas of technology, energy and resources, and changing demographics, all of which are currently available to investors via L&G building-block ETFs.

Overlap across our themes

The following chart shows the overlap across our thematic range of investment strategies. When we design an investment strategy, we aim to provide pure exposure to the theme, which results in our thematic ETFs usually having little to no overlap, where possible. This allows investors to allocate according to their preferences and aim to reduce concentration risks in a portfolio.

	Artificial Intelligence	Battery Value-Chain	Clean Energy	Clean Water	Cyber Security	Digital Payments	eCommerce Logistics	Emerging Cyber Security	Global Thematic	Healthcare Breakthrough	Hydrogen Economy	Pharma Breakthrough	Photonics
Battery Value-Chain	1% (1)												
Clean Energy	1% (1)	6% (3)											
Clean Water	0% (0)	0% (0)	0% (0)										
Cyber Security	9% (8)	0% (0)	0% (0)	0% (0)									
Digital Payments	7% (5)	0% (0)	0% (0)	0% (0)	1% (1)								
eCommerce Logistics	4% (3)	2% (1)	0% (0)	0% (0)	0% (0)	1% (1)							
Emerging Cyber Security	9% (7)	0% (0)	0% (0)	0% (0)	50% (24)	2% (1)	0% (0)						
Global Thematic	12% (68)	14% (21)	12% (37)	8% (45)	13% (41)	1% (6)	9% (35)	8% (26)					
Healthcare Breakthrough	5% (4)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	17% (76)				
Hydrogen Economy	0% (0)	0% (0)	2% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)			
Pharma Breakthrough	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	14% (23)	10% (8)	0% (0)		
Photonics	3% (2)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	1% (10)	1% (1)	0% (0)	0% (0)	
Robotics and Automation	14% (11)	2% (2)	2% (2)	1% (1)	0% (0)	0% (0)	3% (3)	0% (0)	12% (74)	12% (10)	0% (0)	0% (0)	13% (9)

Source: LGIM, Bloomberg. Figures represent % weight and number of stocks. Percentage overlap is calculated as the minimum of weight overlap between two portfolios.

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Artificial Intelligence

Company spotlight

Alteryx

Alteryx is a leading, multi-award-winning provider of data science analytics headquartered in the US. It empowers businesses to make better decisions by providing intelligent data integration tools powered by artificial intelligence. The company owns an Analytics Automation Platform that enables over 8,000 clients globally to save time by automating the steps of data preparation, blending and analytics.

The company has reaccelerated its revenue growth over the last few quarters. With a new management team and new product cycle, Alteryx has been able to demonstrate 50% revenue growth Y/Y in 2Q. Over the past two years, Alteryx has grown its customer base by 30% while maintaining 90% gross margins.

New product offerings such as Auto Insights, Machine Learning, and Designer Cloud are bolstered by the February 2022 completed acquisition of Trifacta, which provides leading cloud-forward no and low-code analytics solutions. One of the key reasons for Alteryx's product development cadence and success is its ability to utilize its own technology, like Auto Insights, across multiple business departments and teams.

Alteryx's guidance of $835 million annual recurring revenue (ARR) is an indication that they are seeing a stable demand environment and with the modernization of the data infrastructure and digital transformation initiatives that is currently taking place. The company noted that sales cycles are improving and that it's currently experiencing the strongest pipeline in the history of the company. Shares of Alteryx are currently trading at less than 4x EV/Sales while growing revenues double digits. AI projects are finally beginning to show signs of recovery and we believe Alteryx is well positioned to benefit from the $65 billion addressable market.

Last quarter performance commentary

The ROBO Global Artificial Intelligence Index fell -4.1% over the quarter.

Earnings season saw outperformance versus expectations, with 79% of companies beating topline and 85% beating earnings guidance. Despite this, forward EV/sales continued downward to 4.6x at quarter-end, even with positive-trending 2023 catalysts on the horizon such as intelligence EV push globally, as well as continued investment in cloud infrastructure and software services.

The passage of the CHIPS Act in the US, which ensures reshoring and new production of cutting-edge and legacy (automotive) semiconductor chips, led to the announcement of hundreds of billions of new investments into manufacturing plants, or 'fabs'. While the industry traded down over the quarter as consumer-led demand has waned, cloud and automotive are holding steady, with the latter seeing a massive ramp-up in 2023 and beyond with the influx of more intelligent EV's coming to market. In Cloud, deployment remained steady, such as Alphabet's recent announcement to launch their first data centre in Japan next year, part of a $730 million infrastructure investment plan.

The main performance contributors were iRobot (returned +53.3%), Butterfly Network (+53.1%) and Etsy (+36.8%). iRobot, the robotic vacuuming pioneer, was acquired by Amazon in an all-cash deal valued at $1.7 billion, making it Amazon's fourth largest acquisition to date. Etsy reported strong results that showed market share retention after the pandemic. Etsy and Butterfly Network also reported positive results for the second quarter.
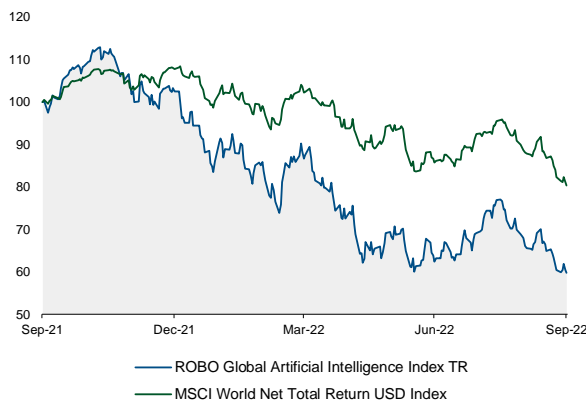
The main detractors were Alibaba (-29.6%), which faced regulatory risks and further competition on the ecommerce business line; Rapid7 (-35.8%), which fell among peers reporting mixed outlooks; and Kingdee International (-44.2%), whose profitability forecasts were affected by COVID-19-related disruption.

Artificial Intelligence

Performance

Historical performance (1y)*
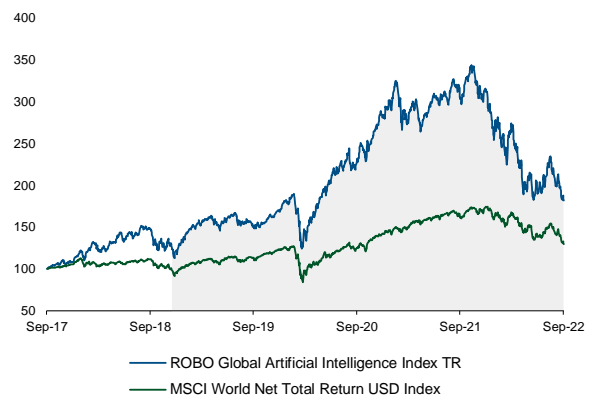
— ROBO Global Artificial Intelligence Index TR
— MSCI World Net Total Return USD Index

Historical performance (5y)*

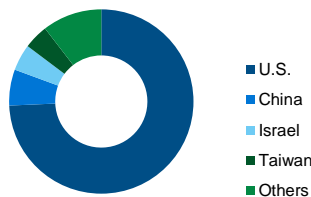— ROBO Global Artificial Intelligence Index TR
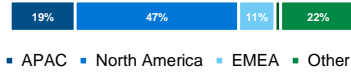— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.
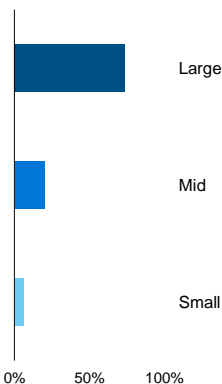
Geographical Breakdown

By Domicile

- U.S.
- China
- Israel
- Taiwan
- Others

By Revenue Source

19%	47%	11%	22%

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

| | Large | Mid | Small |
| 0% | 50% | 100% |

Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-4.07%	-40.17%	20.12%	82.13%
Annualized Return			6.30%	12.73%
Volatility	33.06%	36.15%	31.78%	28.27%
Information Ratio	-46.01%	-111.18%	19.83%	45.04%
Max Drawdown	-22.19%	-46.87%	-46.87%	-46.87%

Index total return contribution (QtD)

Top 5		Bottom 5	
Irobot Corp	▲ 0.73%	Alibaba Grp-Adr	▼ -0.57%
Butterfly Networ	▲ 0.67%	Rapid7 Inc	▼ -0.53%
Etsy Inc	▲ 0.48%	Kingdee Intl Sft	▼ -0.48%
Netflix Inc	▲ 0.36%	Appen Ltd	▼ -0.38%
Mercadolibre Inc	▲ 0.36%	Tencent	▼ -0.38%

Portfolio composition

Latest Additions	Latest Deletions
Crowdstrike	Appen
	CD Projekt
	Upstart Holdings
	iRobot

Key ratios

	Current	Q3 2021
EPS	0.89	0.78
Price/Sales	5.33	10.73
BPS	12.67	10.48
P/E Positive	29.06	49.41
ROE	6.12	9.86
Price/Book	5.96	11.71
P/E (1y fwd)	45.94	86.15
P/E (3y fwd)	29.64	50.00
Sales (1y fwd)	20,971	17,997
Sales (3y fwd)	28,183	25,341

Analyst recommendation**

Buy	Hold
100%	0%
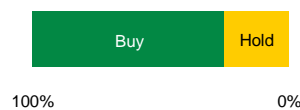
Constituents overlap

S&P 500	11.9%
MSCI World	10.8%
Nasdaq 100	17.8%
Total stocks = 71	

Fund Information

Ticker	AIAI LN	ISIN	IE00BK5BCD43
TER	0.49%	Inception date	02/07/2019
Currency	USD	Index inception date	14-Dec-18
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Battery Value-Chain

Company spotlight

Allkem

Allkem is an Australian specialty lithium chemical company that was formed in 2021 following the merger of Orocobre and Galaxy Resources, with a mission statement to "produce and develop sustainable lithium products responsibly across the globe".

The company's flagship operation is Olaroz, its lithium brine facility in Argentina. Originally designed to allow for future developments and/or expansion plans to occur in line with market demand, its expansion projects now make it on track to become one of the world's largest lithium evaporation pond systems. The facility leverages Northern Argentina's dry and windy weather to facilitate brine evaporation, and it uses innovative techniques to extract lithium brine at competitive costs. The environmental footprint of the facility can be considered low thanks to the use of solar energy, zero liquid discharge, minimal waste and no impact on fresh water. The facility also benefits from favourable infrastructure, as it is supported by a gas pipeline, high voltage electricity, paved highways, and access to major seaports in Argentina and Chile.

Allkem has a joint marketing committee arrangement with Toyota Tsusho Corporation (TTC), a RENW member operating in project implementation, for the sale of lithium carbonate products. TTC manages Olaroz in partnership with and JEMSE, a mining investment company. Battery grade lithium carbonate from this facility is sold to a diverse customer base of approximately 100 customers in Asia, Europe and North America directly to cathode and electrolyte manufacturers for the production of lithium-ion batteries used in EVs.

Allkem also owns facilities and projects in Australia, Japan and Canada. It has a goal to expand production 3-fold by 2026 and maintain 10% of global lithium production over the next decade.

Last quarter performance commentary

The Solactive Battery Value-Chain Index returned +0.9% over the quarter.

Lithium prices plateaued around their peak, benefitting producers and adding pressure on consumers.

Volkswagen started to build its first cell factory in Salzgitter, Germany, and launched PowerCo, a new company that will be responsible for its battery business. PowerCo entered a €3 billion joint venture with Umicore, under which they will produce battery materials for 2.2 million vehicles, and it is expected, alongside partners, to invest €20 billion by 2030 to increase vertical integration in the battery value-chain.

The main contributors to performance were Pilbara Minerals (returned +85.2%), Livent (+35.1%) and Mineral Resources (+29.8%). Pilbara Minerals has been taking advantage of high lithium prices to fund development projects, for example, excess cash is being used to expand capacity at its Pilgan plant and potentially issue its first dividend next year. Livent benefitted from the approval of the Inflation Reduction Act (IRA), which is expected to boost the US lithium supply chain, by providing incentives and tax credits to companies that source materials from the US or its free-trade partners, such as Australia. Livent is also receiving a $198 million upfront payment resulting from the offtake agreement entered with General Motors, in which from 2025 it will supply battery-grade lithium for six years. Mineral Resources benefitted from high lithium prices and announced it is considering a spin-off of its lithium business.
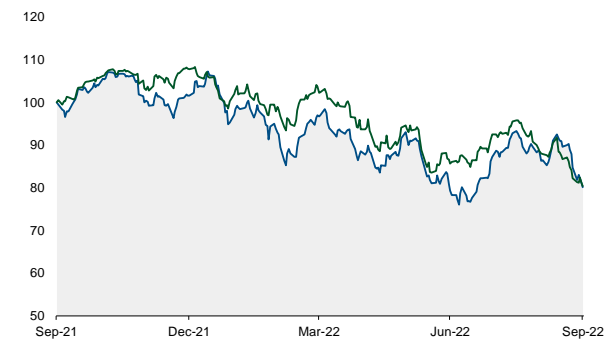
The main detractors were auto manufacturers BYD (returned -38.1%), Nissan Motors (-18.3%) and Solaredge Technologies (-15.4%), which struggled after reporting reduced margins because of the fall in the euro, which offset strong sales in Europe and added to supply chain pressures.
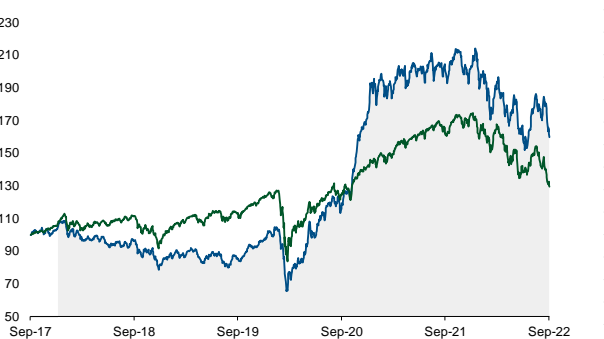
Battery Value-Chain

Performance

Historical performance (1y)*

Line legend: —— Solactive Battery Value-Chain Index —— MSCI World Net Total Return USD Index

Historical performance (5y)*

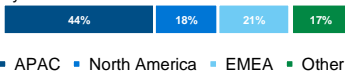Line legend: —— Solactive Battery Value-Chain Index —— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.
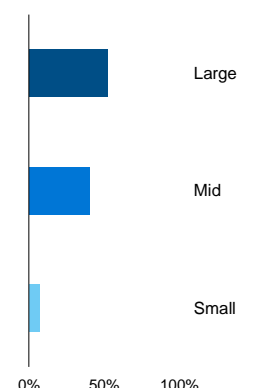
Geographical Breakdown

By Domicile

- Japan
- Australia
- U.S.
- Germany
- Others

By Revenue Source

44%	18%	21%	17%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

Large / Mid / Small

Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	0.88%	-19.88%	87.78%	59.98%
Annualized Return			23.37%	9.85%
Volatility	23.78%	22.43%	23.65%	20.21%
Information Ratio	14.97%	-88.70%	98.80%	48.73%
Max Drawdown	-13.10%	-29.07%	-37.30%	-39.55%

Index total return contribution (QtD)

Top 5		Bottom 5		
Pilbara Minerals	▲2.73%	Byd Co Ltd-H	▼	-2.11%
Livent Corp	▲1.10%	Nissan Motor Co	▼	-0.74%
Mineral Resource	▲0.93%	Solaredge Techno	▼	-0.58%
Allkem Ltd	▲0.81%	Panasonic Holdin	▼	-0.43%
Tesla Inc	▲0.60%	Mercedes-Benz Gr	▼	-0.39%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	0.93	1.32
Price/Sales	0.96	1.04
BPS	13.14	16.73
P/E Positive	16.15	17.49
ROE	9.69	10.87
Price/Book	1.70	2.02
P/E (1y fwd)	27.19	19.72
P/E (3y fwd)	17.61	21.10
Sales (1y fwd)	30,493	40,416
Sales (3y fwd)	37,032	41,392

Analyst recommendation**

Buy	Hold

100%   0%
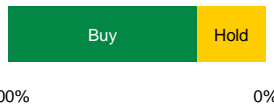
Constituents overlap

S&P 500	2.6%
MSCI World	2.1%
Nasdaq 100	3.9%
Total stocks = 31	

Fund Information

Ticker	BATT LN	ISIN	IE00BF0M2Z96
TER	0.49%	Inception date	23/01/2018
Currency	USD	Index inception date	03-Jan-18
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Clean Energy

Company spotlight

First Solar

First Solar is the largest US solar module manufacturer and the only US manufacturer to be in the top 10 list globally, which is dominated by Chinese players. With nearly 8GW worth of module production in 2021, it expects to reach an annual capacity of over 20GW by 2025.

The company uses its advanced technologies such as machine-to-machine communication, artificial intelligence and Internet of Things connectivity, to produce alternatives to conventional crystalline silicon photo voltaic (PV) panels that are more energy-efficient and according to First Solar have the smallest environmental impact in the industry. First Solar's thin film modules have a 90%+ recovery rate and require 2.5x lower carbon footprint, 3x lower water footprint and 1-2% of the semiconductor material compared with traditional modules, but produce a similar amount of power.

With a $1.5+ billion cumulative R&D spend, First Solar is a leader in R&D investment among PV solar module manufacturers and is also a leader in vertical integration from advanced research, product development, manufacturing and applications. R&D is focused on improving the energy yield of its modules and also improving durability and manufacturing efficiency. 15 years ago First Solar launched the industry's first-ever PV recycling programme, thanks to which it recycles over 90% of the materials in each module.

The company has a vertically integrated model that allows for greater transparency of the production process and reduced timelines. Thanks to the reliability of its business model and reduced political and compliance risk compared with suppliers that source some of their assets from China, in July First Solar announced a record bookings backlog on the back of higher PV module demand.

Last quarter performance commentary

The Solactive Clean Energy Index NTR fell -6.2% over the quarter.

Over the quarter, the performance of clean energy stocks was driven mainly by the sign-off of the Inflation Reduction Act (IRA) in the US and the consequences of the war in Ukraine.

The US Senate finally passed the IRA, a package including $369 billion worth of funding for clean technologies, $260 billion of which is allocated to tax credits, grants, loans and support for wind, solar and nuclear, as well as new technologies such as hydrogen and CCUS. The approval of the act, which is key for the US to achieve its energy security ambitions, benefitted solar stocks with a US-based manufacturing capacity. Rising demand from Europe to offset high energy prices also supported revenues for solar companies, which benefit from shorter lead times than companies installing wind power plants. The proposal introduced by the European Commission to cap the price of electricity from non-gas electricity producers benefitted renewable energy stocks.

The main contributors to performance were solar energy original equipment manufacturer First Solar (returned +94.1%), and solar component suppliers Array Technologies (+50.6%) and Enphase Energy (+42.1%). First Solar benefitted from a Q2 earnings beat as well as from the approval of the IRA. Enphase reported record revenues for the second quarter, with rising demand from Europe.
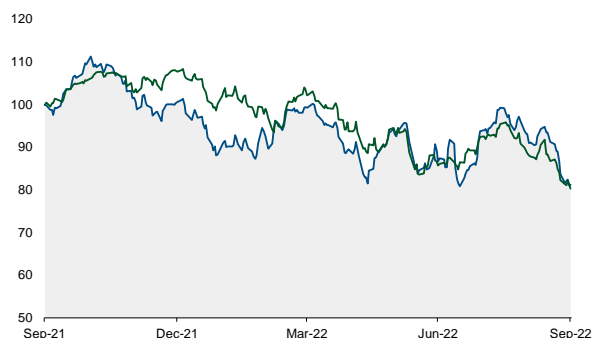
The main detractors were independent power producers Saipem (returned -76.7%), due to corporate action; Azure Power Global (-51.4%); Solaria Energia y Medio Ambiente (-25.5%); and Orsted (-23.5%), which was affected by higher input costs and rates.

Clean Energy
Performance

Historical performance (1y)*

— Solactive Clean Energy Index NTR   — MSCI World Net Total Return USD Index
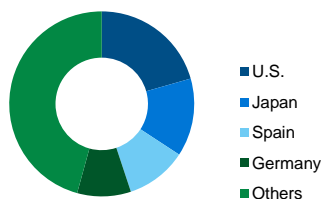
Historical performance (5y)*

— Solactive Clean Energy Index NTR   — MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Japan
- Spain
- Germany
- Others

By Revenue Source

18%	28%	38%	10%

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-6.19%	-18.73%	48.94%	64.88%
Annualized Return			14.20%	10.51%
Volatility	28.86%	24.54%	25.68%	21.43%
Information Ratio	-77.60%	-76.37%	55.28%	49.05%
Max Drawdown	-18.46%	-27.37%	-40.72%	-40.72%

Index total return contribution (QtD)

Top 5		Bottom 5	
First Solar Inc	▲1.35%	Saipem Spa	▼ -6.37%
Array Technologi	▲1.00%	Azure Power Glob	▼ -0.72%
Enphase Energy	▲0.95%	Solaria Energia	▼ -0.42%
Infrastructure A	▲0.85%	Orsted A/S	▼ -0.40%
Ameresco Inc-A	▲0.47%	Scatec Asa	▼ -0.38%

Portfolio composition

Latest Additions	Latest Deletions	
Aes Corp	Eon	American Superconductor
Marubeni	Centrica Enbridge	Hyundai E&C
Nexans	China Steel	Peab
PNE	CTCI Corp	Samsung SDI
Solaria Energia y Medio Ambiente	Delta Electronics	Sumitomo Heavy I.
	Atlas Copco	Yokogawa Electric

Key ratios

	Current	Q3 2021
EPS	0.83	0.82
Price/Sales	1.42	2.03
BPS	10.03	8.90
P/E Positive	26.97	37.47
ROE	8.91	7.15
Price/Book	2.47	2.89
P/E (1y fwd)	35.33	36.30
P/E (3y fwd)	21.82	32.47
Sales (1y fwd)	12,591	12,771
Sales (3y fwd)	13,322	12,427

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	2.7%
MSCI World	2.6%
Nasdaq 100	2.0%
Total stocks = 53	

Fund Information

Ticker	RENW LN	ISIN	IE00BK5BCH80
TER	0.49%	Inception date	11/11/2020
Currency	USD	Index inception date	26-Jun-20
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

The value of an investment and any income taken from it is not guaranteed and can go down as well as up;
You may not get back the amount you originally invested. Simulated past performance is not a guide to the future.

Clean Water

Company spotlight

Advanced Drainage Systems

Advanced Drainage Systems (ADS) is a US water technology and digital solutions provider serving customers primarily in the storm and waste water industry.

The company generates the majority of revenues from its Pipe segment, in which it manufactures and markets high performance thermoplastic corrugated pipe, 10 billion feet of which are used worldwide. The company also provides other solutions for water quality, such as separators and filters, water detention and infiltration, onsite leach field products, basins and specialty fittings.

When it acquired the regional rival Hancor in 2005, ADS became the world's largest HDPE corrugated plastic pipe manufacturer. Last year it acquired Jet Polymer Recycling to expand its recycling capabilities and support the production of high-density polyethylene (HDPE) pipes and the green building lineup, made from high-quality recycled material. The company recycles over 0.5 bn pounds of plastic made of everyday household items and over half of the plastic they purchase is recycled to be used in its highly engineered products. In 2012 ADS established Green Line Polymers to source, purchase and process high-quality plastic material that ADS could then use. The subsidiary would supply over 80% of the recycled high-density polyethylene (HDPE) that ADS would use and the brand was subsequently integrated into ADS under the ADS Recycling brand.

In May 2022, ADS completed the acquisition of Cultec, Inc. (Cultec), a family-owned technology leader in the stormwater and on-site septic wastewater industries.

ADS achieved record revenue and adjusted EBITDA for the First Quarter Fiscal 2023 thanks to growth in the construction end markets, which offset inflationary cost pressures.

Last quarter performance commentary

The Solactive Clean Water Index NTR fell -6.4% over the quarter.

The Valuing Water Finance Initiative was launched in August. The initiative, supported by approximately 60 international investment groups, calls for water to be prioritised in decision making in different water value chains and sectors. Its six actionable 'corporate expectations' concern water quantity, water quality, ecosystem protection, access to water and sanitation, board oversight, and public policy engagement.

In the US, the Inflation Reduction Act (IRA) contained some drought mitigation measures, such as funding for water conservation projects, habitat restoration and water supply projects to serve disadvantaged communities. However, this package was small compared with the Infrastructure Investment & Jobs Act delivered in Q4 2021, which remains the largest single federal investment in water.

Over the quarter, the Nasdaq Veles California Water Index reached a new peak as the price of water in California rose steadily over the summer. The rise in the cost of water and energy, plus higher interest rates, were headwinds companies faced during the quarter. However, a high inflation environment can be a good opportunity to accelerate the roll-out of digital technologies.

The main contributors to performance were Advanced Drainage Systems (returned +38.2%) on the back of estimated revenue beats; Energy Recovery (+12.0%); and Cia de Saneamento Basico (+14.0%), which soared at the end of the quarter due to developments in the Brazilian presidential race and increased the likelihood of privatisation.
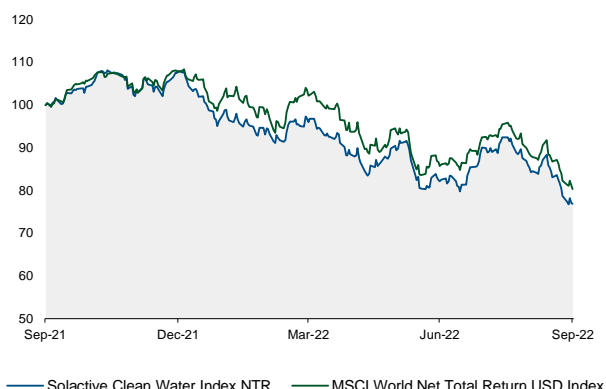
The main detractors were China Lesso (returned -36.9%), Pennon Group (-22.4%) and Genuit Group (-29.5%). Pennon and Genuit were caught in the sell-off of UK assets at the end of September.

Clean Water

Performance

Historical performance (1y)*

— Solactive Clean Water Index NTR — MSCI World Net Total Return USD Index

Historical performance (5y)*

— Solactive Clean Water Index NTR — MSCI World Net Total Return USD Index
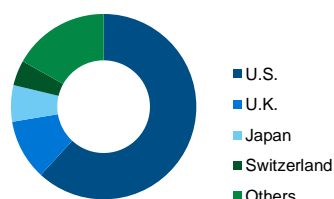
*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- U.K.
- Japan
- Switzerland
- Others

By Revenue Source

18%	41%	18%	19%

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Large

Mid

Small

0%   50%   100%
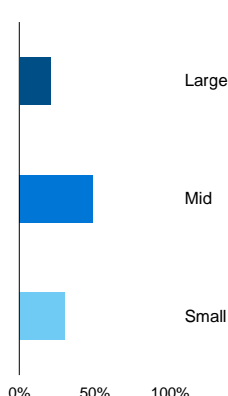
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-6.40%	-23.04%	19.95%	46.48%
Annualized Return			6.25%	7.93%
Volatility	19.95%	18.09%	22.55%	19.25%
Information Ratio	-115.82%	-127.44%	27.71%	41.20%
Max Drawdown	-16.95%	-28.92%	-36.00%	-36.00%

Index total return contribution (QtD)

Top 5		Bottom 5		
Advanced Drainag	▲0.56%	China Lesso	▼	-0.83%
Energy Recovery	▲0.25%	Pennon Grp Plc	▼	-0.43%
Sabesp-Adr	▲0.25%	Genuit Group Plc	▼	-0.43%
Badger Meter Inc	▲0.24%	United Utilities	▼	-0.41%
Xylem Inc	▲0.22%	Severn Trent	▼	-0.40%

Portfolio composition

Latest Additions	Latest Deletions
Consolidated Water	Danaher
Idex Corp	Guangdong Investment
Nomura Micro Science	Ingevity
	Northwest Pipe
	Uponor

Key ratios

	Current	Q3 2021
EPS	1.38	1.51
Price/Sales	2.20	3.10
BPS	12.53	12.72
P/E Positive	27.82	34.17
ROE	12.57	11.41
Price/Book	2.70	3.63
P/E (1y fwd)	24.53	33.93
P/E (3y fwd)	20.62	28.26
Sales (1y fwd)	2,244	2,358
Sales (3y fwd)	2,446	2,369

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	0.6%
MSCI World	0.5%
Nasdaq 100	0.0%
Total stocks = 54	

Fund Information

Ticker	GLUG LN	ISIN	IE00BK5BC891
TER	0.49%	Inception date	02/07/2019
Currency	USD	Index inception date	07-Jun-19
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Cyber Security

Company spotlight

Trend Micro

Trend Micro offers security-related products and services for endpoint devices such as computers, mobile phones, email website /browsers, and for cloud and internet networks. Its XGenTM security approach is itself an innovation in the cyber security industry. Trend Micro uses cutting-edge machine learning (ML) and artificial intelligence (AI) techniques to intercept new threats, and for faster responses and effective protection.

Trend Micro has made 11 acquisitions in total since its listing. Its most significant acquisition to date was TippingPoint, bought from Hewlett-Packard in October 2015 for $300 million. Cloud Conformity was most recently acquired in October 2019 for $70 million to solidify its cloud security services business.

Trend Micro's research centres and security experts are continuously collecting intelligence to enforce security solutions in organisations all over the world. The company prioritises its research work on demystifying existing threats and gauging cyber vulnerabilities, while building the future of cyber security via a robust R&D pipeline that has led to the filing of 700+ patents.

A leader in cloud and enterprise security, Trend Micro One is an all-in-one platform optimised by forming alliances with cloud providers Amazon, Microsoft and Google, as well as other platform and application developers including IBM and VMware. It offers centralised visibility of IT infrastructure for fast threat detection and response to mitigate cyber risks. The ability to offer a unified platform of security tools – including vendor consolidation and integration with the IT environment – reduces operational costs by up to 63%.

In 2021, Gartner, a leading technology research organisation, named Trend Micro as a leader in its Magic Quadrant for Endpoint Protection Platform segment. Similarly, Forrester named Trend Micro a leader for Endpoint Detection and Response (EDR) in Q2 2022, and the top ranked provider in the XDR category in Q4 2021.

Last quarter performance commentary

The ISE Cyber Security UCITS Net Total Return Index fell -2.4% over the quarter.

Although the performance of some cloud security and threat intelligence providers started recovering earlier in the quarter, the macro market environments sent other portfolio constituents into negative territory.

Recent research (dated August 2022) from MarketsandMarkets projects the cyber security market to grow from its current level of $173.5 billion to $266.2 billion in 2027, i.e. a CAGR of 8.9% during 2022-2027. This report indicates cloud-based security deployment will grow at the fastest pace during the period.

From a regulatory standpoint, cyber security remains a key topic: the US House of Representatives passed two cyber security bills in July 2022. The first bill, authored by Congressman Bilirakis, will require the Federal Trade Commission to report cross border complaints involving ransomware and other cyberthreat incidents. The second bill – the Energy Cybersecurity University Leadership Act – directs the Department of Energy to establish an energy cyber security university leadership programme.

The companies contributing most to the portfolio in performance terms were Ping Identity (+55%), Cloudflare (+27%), CyberArk Software (+17%), Micro Focus (+81%) and Trend Micro (+11%). Ping Identity, a provider of the Intelligent Identity solution for the enterprise, has announced that it entered into a definitive agreement to be acquired by Thoma Bravo for $28.50 per share in an all-cash transaction valued at an enterprise value of approximately $2.8 billion. The offer represents a premium of approximately 63% over Ping Identity's closing share price on 2 August 2022.
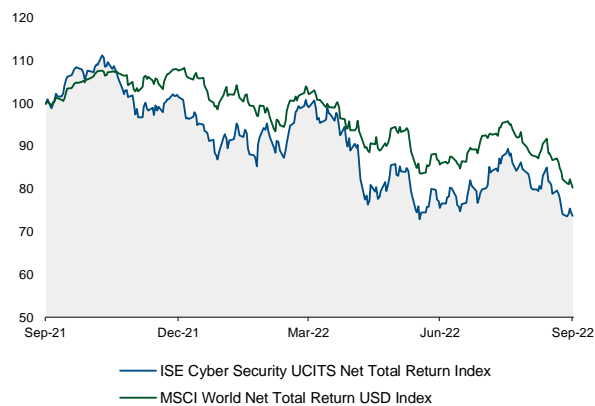
Among the companies that contributed negatively to this quarter's performance were Fastly (-21%), Splunk (-15%), Darktrace (-8%) and Ziff Davis (-13%).

Cyber Security

Performance

Historical performance (1y)*

- ISE Cyber Security UCITS Net Total Return Index
- MSCI World Net Total Return USD Index

Historical performance (5y)*

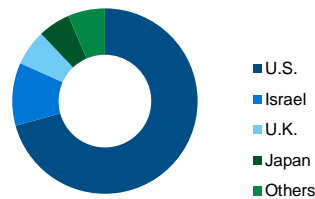- ISE Cyber Security UCITS Net Total Return Index
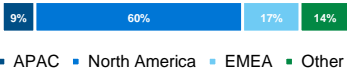- MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Israel
- U.K.
- Japan
- Others

By Revenue Source

9%	60%	17%	14%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

Large

Mid

Small

0%   50%   100%

Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-2.42%	-26.22%	22.04%	71.77%
Annualized Return			6.86%	11.42%
Volatility	29.56%	29.66%	26.71%	23.75%
Information Ratio	-31.33%	-88.45%	25.70%	48.08%
Max Drawdown	-17.72%	-34.42%	-34.42%	-34.42%

Index total return contribution (QtD)

Top 5		Bottom 5	
Ping Identity Ho	▲1.75%	Fastly Inc -Cl A	▼ -0.57%
Cloudflare Inc-A	▲0.84%	Splunk Inc	▼ -0.56%
Cyberark Softwar	▲0.60%	Darktrace Plc	▼ -0.52%
Micro Focus Intl	▲0.58%	Ziff Davis Inc	▼ -0.48%
Trend Micro Inc	▲0.40%	Akamai Technolog	▼ -0.44%

Portfolio composition

Latest Additions	Latest Deletions
Jamf Holding	Sailpoint Technologies
Micro Focus International	VMware
SentinelOne	
Ziff Davis	

Key ratios

	Current	Q3 2021
EPS	- 0.08	0.49
Price/Sales	3.42	6.02
BPS	6.10	8.14
P/E Positive	27.71	33.88
ROE	- 4.90	4.11
Price/Book	3.08	4.98
P/E (1y fwd)	30.90	29.58
P/E (3y fwd)	23.57	28.34
Sales (1y fwd)	2,952	3,184
Sales (3y fwd)	2,872	2,796

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	0.8%
MSCI World	0.9%
Nasdaq 100	3.3%
Total stocks = 45	

Fund Information

Ticker	USPY LN	ISIN	IE00BYPLS672
TER	0.69%	Inception date	28/09/2015
Currency	USD	Index inception date	31-Aug-15
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Digital Payments

Company spotlight

Wise

Wise is a pure play Cardless Payments and Ancillary Payment Services provider. The company is headquartered in the UK and provides data and transaction processing software to personal and business accounts. Previously known as Transferwise, its mission is to make money work without borders. Wise supports cross-border transactions for individuals and businesses through multi-currency accounts and a debit card, allowing them to convert money in 53 currencies and in 80 countries.

In September Wise announced the rollout of a new International Receive Service, for customers to receive and send crossborder payments even when not connected to SWIFT. This service can be particularly useful for neobanks, which find it costly and time consuming to register to SWIFT.

Thus far in 2022, Wise has launched six new partnerships, increasing the total number of bank and non-bank partners to over 50. These include the development of a platform with Turkish bank Fibabanka, an integration with Israeli credit card company Max, and collaborations with US-based Firstbase, which helps entrepreneurs fund their businesses, UK-based HR service Onfolk, Malaysia- and Singapore-based investment platforms GoTrade and Tiger Brokers. Most of these partnerships have been entered to facilitate crossborder transactions for customers worldwide, thanks to APIs that allow them not to leave their partner apps. Wise was the first fintech, after banks, to enter an open finance agreement with Plaid. The partnership with the data connectivity solutions provider should give 13 million customers the ability to connect to 6,000 apps and move money between accounts.

Last quarter performance commentary

The Solactive Digital Payments Index fell -1.6% over the quarter.

After the acceleration seen during the peak of the pandemic, with the shift to cashless transactions, companies within the theme are seeing further consolidation. Visa is considering a stake in Airwallex, an Australian company that provides cross-border payments, card issuing and expense management. Billtrust and EVO Payments were acquired. In-store volume has started to slow as a result of falling disposable income, although this is somewhat counterbalanced by inflation. In order to diversify its business and become more resilient in the face of supply chain disruption, Adyen launched its first terminals to provide merchants with the ability to add payment acceptance to their mobile devices. Payment companies are seeing mixed performance from different types of clients, with travel businesses doing better than online retail companies.

In the meantime, central banks continue studies on Central Bank Digital Currencies (CBDC). FIS launched an infrastructure technology solution to help central banks navigate digital-first payment economies, and the ECB wrote about the potential benefits of interlinking domestic payment systems with CBDCs.

The main contributors to performance were BTRS Holdings (Billtrust) (returned +85.9%), Wise (+103.0%) and Evo Payments (+41.6%). EQT announced the acquisition of Billtrust at a 47% premium, and portfolio member Global Payments announced the acquisition of EVO Payments at a 34% premium to expand in faster growing markets. Wise, which is already profitable and cash flow positive, released a positive update on volumes and sales.
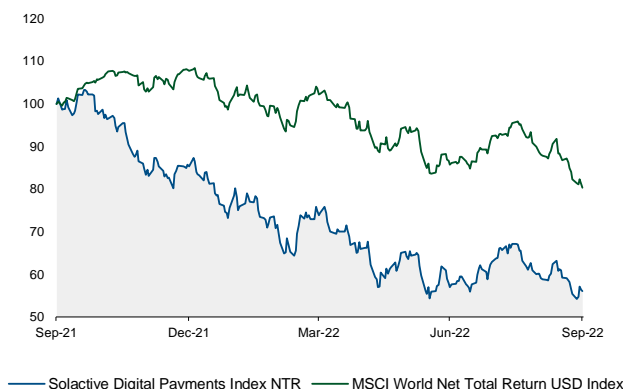
The main detractors were Repay Holdings (returned -45.1%) on the back of earnings misses, EML Payments (-39.5%) on more idiosyncratic issues and OneSpan (-27.7%).

Digital Payments

Performance

Historical performance (1y)*
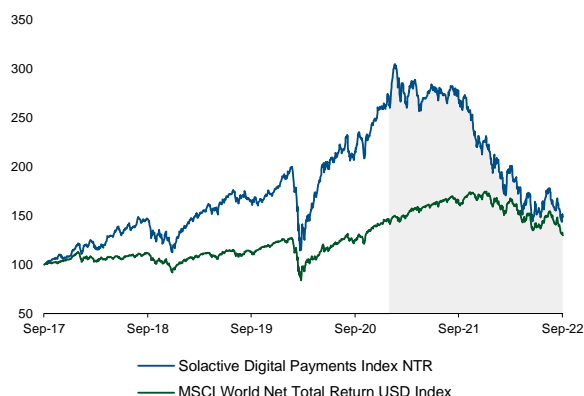
— Solactive Digital Payments Index NTR — MSCI World Net Total Return USD Index

Historical performance (5y)*
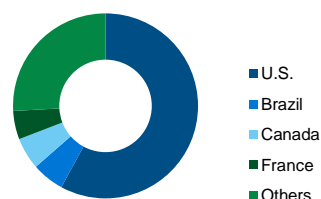

— Solactive Digital Payments Index NTR
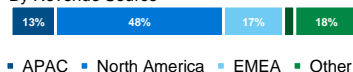— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Brazil
- Canada
- France
- Others

By Revenue Source

| 13% | 48% | 17% | 18% |

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Large

Mid

Small

0%   50%   100%
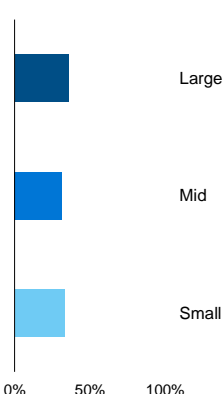
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-1.61%	-43.91%	-10.27%	48.56%
Annualized Return			-3.55%	8.23%
Volatility	30.33%	32.73%	30.41%	26.34%
Information Ratio	-20.59%	-134.23%	-11.67%	31.26%
Max Drawdown	-19.35%	-47.48%	-52.89%	-52.89%

Index total return contribution (QtD)

Top 5		Bottom 5		
Btrs Holdings In	▲2.25%	Repay Holdings C	▼	-1.01%
Wise Plc - A	▲2.00%	Eml Payments Ltd	▼	-0.78%
Evo Payments-A	▲0.96%	Onespan Inc	▼	-0.64%
Network Internat	▲0.91%	Tencent	▼	-0.63%
Flywire Corp-Vot	▲0.68%	Dlocal Ltd	▼	-0.58%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	0.57	1.07
Price/Sales	3.46	6.53
BPS	7.69	10.02
P/E Positive	28.29	46.85
ROE	4.71	8.33
Price/Book	2.80	5.27
P/E (1y fwd)	27.29	39.70
P/E (3y fwd)	19.58	34.85
Sales (1y fwd)	6,523	6,333
Sales (3y fwd)	7,454	7,192

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	2.9%
MSCI World	2.2%
Nasdaq 100	1.6%
Total stocks = 43	

Fund Information

Ticker	DPAY LN	ISIN	IE00BF92J153
TER	0.49%	Inception date	27/05/2021
Currency	USD	Index inception date	26-Jan-21
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Ecommerce Logistics

Company spotlight

Manhattan Associates

Manhattan Associates is a unified omnichannel commerce & digital supply chain provider based in the US. The company operates in the technology segment of e-commerce logistics and offers point of sale (POS) and store fulfilment, ordering and customer service, omnichannel inventory and digital supply chain solutions. It is a leader in supply chain R&D spending, with $353 million spent since 2007.

Manhattan's Active SaaS platform has been designed for supply chain management, omnichannel optimisation and inventory integration solutions. The suite of solutions aims to integrate digital and physical retail, stock management and distribution models that have risen through trends such as online shopping, rising disposable income for millennials, store-based fulfilment growth and B2B e-commerce market growth. These solutions can optimise operations for selling, customer service, fulfilment and distribution. The inventory platform allows users to view their stock management strategy, from forecasting and replenishment through to planning and allocation. The omni platform allows customers to maintain a view on clients, inventories, orders, pickups and returns from any location. The supply chain solution provides customers with a unique view of distribution, labour, automation and transportation that can help them gain real-time visibility and control of their supply chains. Manhattan Associates is an expert in this space, having been ranked as a leader in the Gartner Magic Quadrant for Warehouse Management Systems (WMS) 12 consecutive times. Finally, the integration platform allows customers to view orders and stock on a single platform across the whole business.

Thanks to these technology solutions, Manhattan's customers, who operate across many industries from retail pharmaceuticals to third-party logistics and manufacturing, can improve the customer experience, supplier relationships and navigate the increasing complexity of their local and global supply chains.

Last quarter performance commentary

The Solactive eCommerce Logistics Index fell -11.4% over the quarter.

Following the US-China trade war and Russia's invasion of Ukraine, global supply chains are being shaped by political rather than economic logic, something described as ally sourcing. Proof of this is the 29% rise in bilateral trade between Russia and China between January and May 2022.

Over the quarter, we also started to experience the whiplash effect in inventories. After a prolonged period of supply-chain bottlenecks and shortages – which are still affecting some sectors such as automotive – compensating by over-ordering has filled up inventories and reversed the issue, with many retailers finding themselves overstocked and facing margin cuts. This underscored the importance of smart and sustainable inventory management. The logistics and transportation industry has faced additional challenges such as drought, halting transport on the Danube and the Rhine, and rising energy prices.

The main contributors to performance were Manhattan Associates (returned +16.1%) on the back of strong results, supply management solution provider SPS Commerce (+9.9%) and transportation and logistics company Ryder System (+7.1%) on the back of a potential acquisition by Apollo Global Management. Ryder System completed the acquisition of start-up Baton Technologies, which provides customer-facing logistics technologies that optimise transportation networks.
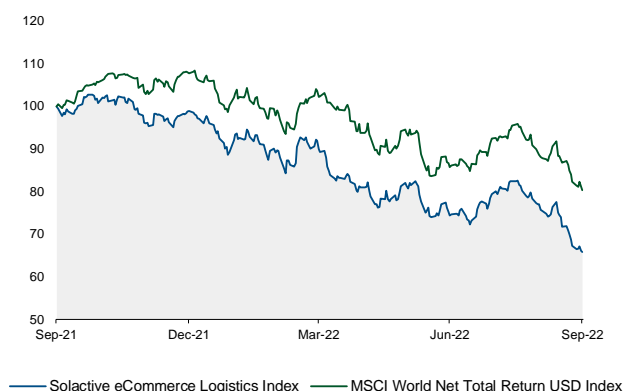
The main detractors were FedEx (-34.2%), which missed expectations due to rising costs and a challenging macro environment in Asia and service issues in Europe; Alibaba (-29.6%), which faced regulatory risks and further competition on the ecommerce business line; and Ocado (-44.7%), due to higher costs and customer behaviour.

Ecommerce Logistics

Performance

Historical performance (1y)*
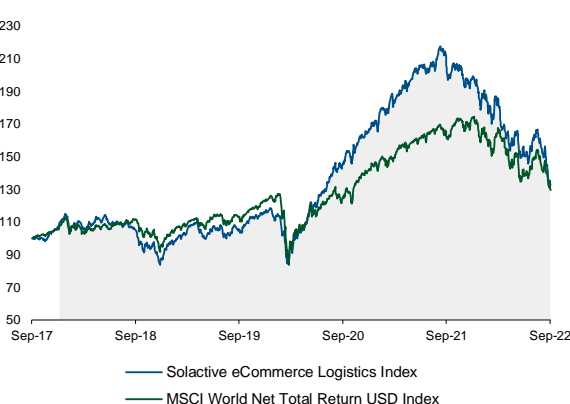
— Solactive eCommerce Logistics Index   — MSCI World Net Total Return USD Index

Historical performance (5y)*

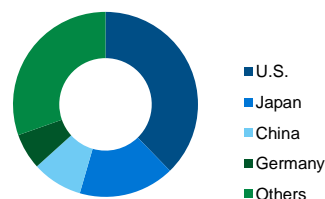— Solactive eCommerce Logistics Index
— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Japan
- China
- Germany
- Others

By Revenue Source

30%	32%	19%	19%

- APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Large

Mid

Small

0%   50%   100%
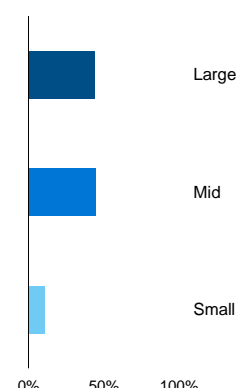
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-11.42%	-34.12%	26.25%	32.89%
Annualized Return			8.08%	5.85%
Volatility	19.97%	19.50%	18.39%	16.35%
Information Ratio	-191.39%	-175.07%	43.93%	35.78%
Max Drawdown	-20.00%	-35.70%	-38.77%	-38.77%

Index total return contribution (QtD)

Top 5		Bottom 5		
Manhattan Assoc	▲0.34%	Fedex Corp	▼	-1.02%
Sps Commerce Inc	▲0.23%	Alibaba Grp-Adr	▼	-0.88%
Ryder System Inc	▲0.21%	Ocado Group Plc	▼	-0.81%
Walmart Inc	▲0.14%	Cj Logistics	▼	-0.73%
Amazon.Com Inc	▲0.09%	Kerry Logistics	▼	-0.57%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	2.46	1.76
Price/Sales	0.56	1.05
BPS	13.79	15.03
P/E Positive	10.49	21.74
ROE	14.29	20.09
Price/Book	1.93	3.74
P/E (1y fwd)	19.38	28.79
P/E (3y fwd)	10.29	18.19
Sales (1y fwd)	45,687	41,128
Sales (3y fwd)	55,266	49,181

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	4.2%
MSCI World	4.0%
Nasdaq 100	2.6%
Total stocks = 41	

Fund Information

Ticker	ECOM LN	ISIN	IE00BF0M6N54
TER	0.49%	Inception date	23/01/2018
Currency	USD	Index inception date	03-Jan-18
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

The value of an investment and any income taken from it is not guaranteed and can go down as well as up;
You may not get back the amount you originally invested. Simulated past performance is not a guide to the future.

Emerging Cyber Security

Company spotlight

Broadcom

Broadcom develops semiconductors and infrastructure software solutions. Broadcom offers a series of products and services from storage adapters, networking processors to hardware security and security software to optimise and secure complex hybrid environments.

Broadcom offers highly integrated System-On-Chip (SoC) solutions with complex technologies and robust software. To secure microprocessors, accounting for both software and hardware protection is essential. Broadcom includes multiple layers of security features in both the hardware and software design.

Secure processors provide a safe execution environment by checking the system's integrity. This provides hardware-based key creation for managing, generating, encrypting and decrypting data. A private key is stored in the chip and cannot be divulged to hackers. SoCs can be used for applications requiring security such as smart point-of-sale devices, consumer vending machines or point-of-sale payment terminals.

As part of its mission to protect further parts of networks and servers, it also offers secure ethernet adapters through its NetXtreme® E-Series; these adapters occupy a strategic location in a server, and a single compromised ethernet adapter could impact thousands of unsuspecting users by snooping, diverting or blocking application traffic. It has recently announced the delivery of Trident 4C, an Ethernet switch analysing traffic and capable of detecting anomalies in real time without compromising performance.

Broadcom also provides further cyber security solutions; it acquired the enterprise security business unit of Symantec in 2019, allowing it to provide an integrated cyber defence solution for on-premises and cloud infrastructures. It has also recently announced the acquisition of VMware, expected to be completed next year in 2023.

Last quarter performance commentary

The L&G Emerging Cyber Security ESG Exclusions UCITS ETF was launched on 7th September 2022. We will start commenting on performance on the Q4 edition of the quarterly report.

Emerging Cyber Security

Performance

Historical performance (1y)*

- Solactive Emerging Cyber Security Index NTR
- MSCI World Net Total Return USD Index

Historical performance (5y)*

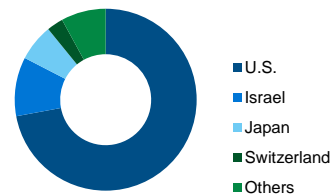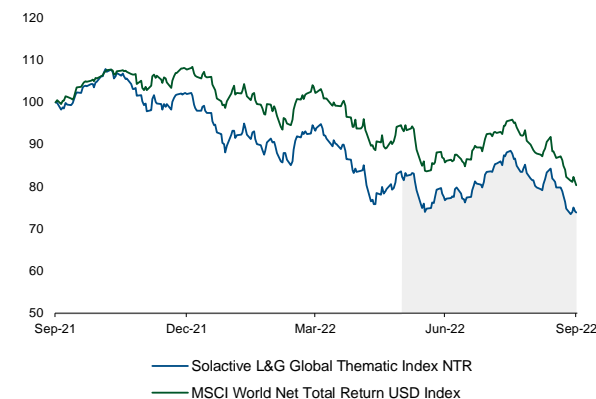- Solactive Emerging Cyber Security Index NTR
- MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Israel
- Japan
- Switzerland
- Others

By Revenue Source

12%	54%	18%	16%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

- Large
- Mid
- Small

0% 50% 100%

Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-6.44%	-31.25%	48.58%	111.89%
Annualized Return			14.11%	16.20%
Volatility	30.09%	32.69%	30.40%	27.50%
Information Ratio	-77.15%	-95.65%	46.40%	58.90%
Max Drawdown	-19.17%	-41.21%	-41.21%	-41.21%

Index total return contribution (QtD)

Top 5		Bottom 5		
Palo Alto Networ	▲3.80%	Rackspace Techno	▼	-1.26%
Ping Identity Ho	▲1.57%	Fingerprint Ca-B	▼	-0.99%
Cloudflare Inc-A	▲1.15%	Rapid7 Inc	▼	-0.94%
Arista Networks	▲0.84%	Onespan Inc	▼	-0.84%
Identiv Inc	▲0.72%	Okta Inc	▼	-0.81%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	0.00	0.14
Price/Sales	4.24	7.07
BPS	6.17	6.53
P/E Positive	25.39	32.38
ROE	- 0.62	4.11
Price/Book	4.18	6.97
P/E (1y fwd)	36.35	39.67
P/E (3y fwd)	33.34	38.79
Sales (1y fwd)	5,664	6,060
Sales (3y fwd)	7,107	5,961

Analyst recommendation**

Buy	Hold

100% 0%

Constituents overlap

S&P 500	1.3%
MSCI World	1.3%
Nasdaq 100	4.7%
Total stocks = 33	

Fund Information

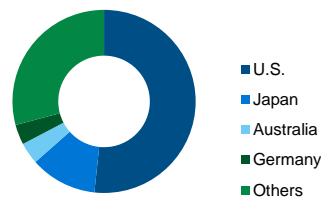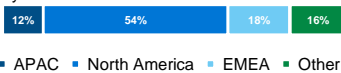| Ticker	ESPY LN	ISIN	IE000ST40PX8
TER	0.49%	Inception date	07/09/2022
Currency	USD	Index inception date	18-Jul-22
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Global Thematic

Index methodology

The ETF aims to provide exposure to a basket of securities as part of investment themes, each of which is already tracked by our thematic building-block ETFs.

The fund allocates across these themes using a quantitative allocation model, which ensures each theme contributes an equal level of risk to the portfolio. This is to improve overall portfolio volatility and return characteristics as the idiosyncratic risks associated with each theme evolve over time, which also has the effect of providing a lower total volatility than most single theme approaches.

The fund's investment universe comprises of LGIM's existing thematic ETFs, which aims to give exposure to multiple global growth themes across three broad categories.

Technology
• Artificial intelligence
• Robotics and automation
• Cyber security

Energy and Resources
• Battery value-chain
• Clean water
• Clean energy

Demographics
• Ecommerce logistics
• Healthcare breakthrough
• Pharma breakthrough

While the above themes reflect what the fund currently invests in, this will evolve over time. To select themes for inclusion, minimum thresholds apply to the following criteria:
• Track record
• TER
• Diversification within themes and with broader benchmarks
• Stage of evolution of the theme

Last quarter performance commentary

The L&G Global Thematic ESG Exclusions UCITS ETF was launched on 7th September 2022. We will start commenting on performance on the Q4 edition of the quarterly report.

Global Thematic

Performance

Historical performance (1y)*
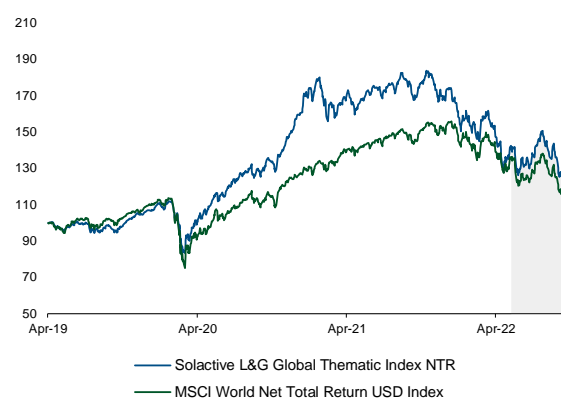
Legend:
— Solactive L&G Global Thematic Index NTR
— MSCI World Net Total Return USD Index

Historical performance (5y)*

Legend:
— Solactive L&G Global Thematic Index NTR
— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Japan
- Australia
- Germany
- Others

By Revenue Source

12%	54%	18%	16%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

Large
Mid
Small

0%   50%   100%
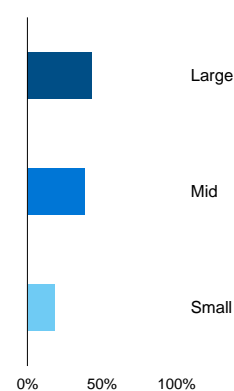
Index Performance*

Index Performance*	QtD	1 year	3 years
Cumulative Return	-3.75%	-26.17%	30.67%
Annualized Return			9.33%
Volatility	20.43%	21.27%	19.40%
Information Ratio	-68.91%	-123.10%	48.06%
Max Drawdown	-16.97%	-31.88%	-31.88%

Index total return contribution (QtD)

Top 5		Bottom 5		
Pilbara Minerals	▲0.51%	Byd Co Ltd-H	▼	-0.27%
Ping Identity Ho	▲0.29%	Sino Biopharm	▼	-0.18%
Alnylam Pharmace	▲0.26%	Pharma Mar Sa	▼	-0.16%
Sarepta Therapeu	▲0.26%	Ultragenyx Pharm	▼	-0.16%
First Solar Inc	▲0.24%	Emergent Biosolu	▼	-0.14%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	1.19	1.17
Price/Sales	2.96	4.78
BPS	12.19	11.81
P/E Positive	23.47	34.46
ROE	10.04	10.45
Price/Book	3.04	4.83

P/E (1y fwd)	29.98	38.66
P/E (3y fwd)	20.80	30.25
Sales (1y fwd)	12,144	11,533
Sales (3y fwd)	14,402	13,541

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	11.0%
MSCI World	13.5%
Nasdaq 100	8.0%
Total stocks = 404	

Fund Information

Ticker	THMZ LN	ISIN	IE000VTOHNZ0
TER	0.6%	Inception date	07/09/2022
Currency	USD	Index inception date	30-May-22
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Healthcare Technology

Company spotlight

Alnylam Pharmaceuticals

Alnylam Pharmaceuticals is a pioneer in RNA interference (RNAi) therapeutics focused on genetic, cardio-metabolic, infectious, central nervous system, and ocular diseases. The US based company is one of the few biotech pure plays in the strategy due to its truly innovative approach to shaping the healthcare landscape. It has three approved products on the market, 11 programs in clinical development, over 35 clinical studies and its scientists and collaborators have published research on RNAi therapeutics in over 250 peer-reviewed papers, including many in the world's leading scientific publications.

With their first product on the market in 2018, overall product, collaboration, and royalty revenues have grown at a 5-year 78% CAGR and are on target to surpass $1B this year. Growth of an additional 60% is expected next year as newer products begin to recognize sales globally and there are dozens more in the pipeline. Through their partnership (royalties) with Novartis, they also expect Leqvio to be a blockbuster, billion-dollar drug targeting the cardiovascular segment, specifically lowering cholesterol (LDL-C).

In June, Alnylam gained its fifth approved RNAi to market in less than four years, Amtvutta (Vutrisiran), which is the first and only drug approved for the Treatment of Polyneuropathy of Hereditary Transthyretin-Mediated Amyloidosis (hATTR) in adults, through an injection given once every three months in the US market. In mid-September, the drug received European approval. Alynam saw a 50% intra-daily share gain on the news that their Patisiran drug, which is already approved for another indication made $290M in sales in the first half of 2022 under the brand name Onpattro. Analysts see a potential $5B in annual sales from Patisiran alone.

Last quarter performance commentary

The ROBO Global Healthcare Technology and Innovation Index fell -6.3% over the quarter.

The index has now declined 50% from its high of February 2021. While much of the public discourse has been focused on COVID-19, innovation in healthcare continues at an accelerating pace. Revenue grew by 22% in 2021 and is expected to grow by an additional 12% this year and 10% in 2023. This leaves the index trading on 3.9x forward EV/sales at the median, compared with the February 2021 high of 7.2x and the March 2020 low of 4.0x.

During the quarter, we saw several positive developments in the space. In the US, the Inflation Reduction Act was passed, which provides future access to lower prescription drug prices through 2025, such as a yearly out-of-pocket cap of $2,000 for Medicare. Medical Instruments, our largest subsector at 28.5% weighting and (-2.4%) for the quarter, saw solid developments across numerous companies.

The main performance contributors were Penumbra (returned +52.3%), Alnylam Pharmaceuticals (+37.2%) and Butterfly Network (+53.1%). Penumbra delivered positive results despite a challenging labour and supply chain situation. Additionally, its RED Reperfusion Catheters for acute ischemic stroke patients started to be commercialised in Europe. Alnylam reported positive developments in the areas of muscular dystrophy and Butterfly Network reported positive results for the second quarter.
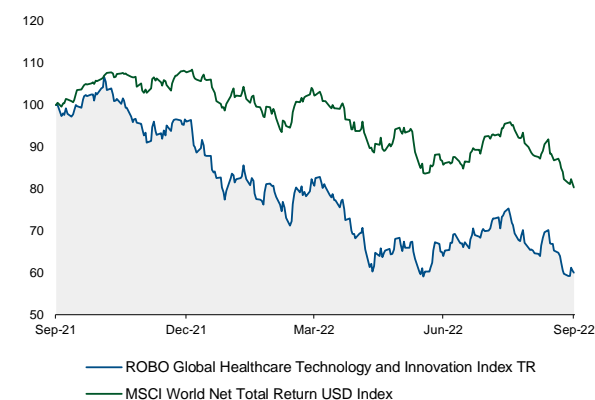
The main detractors were Grifols (-54.0%), on the back of earnings misses; diagnostic and genomics solutions provider Azenta (-40.6%), on the back of a normalisation of COVID-19-related demand; and Codexis (-42.1%), due to a disappointing outlook.

Healthcare Technology

Performance

Historical performance (1y)*
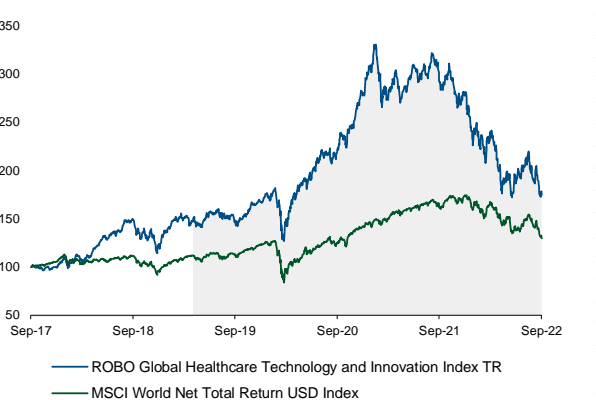
— ROBO Global Healthcare Technology and Innovation Index TR
— MSCI World Net Total Return USD Index

Historical performance (5y)*

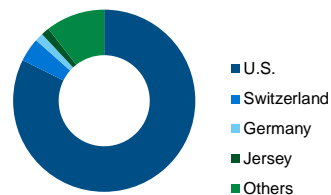— ROBO Global Healthcare Technology and Innovation Index TR
— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Switzerland
- Germany
- Jersey
- Others

By Revenue Source

7%	59%	11%	23%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown
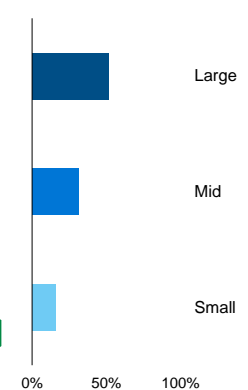
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-6.26%	-39.97%	18.11%	75.10%
Annualized Return			5.70%	11.85%
Volatility	30.81%	31.46%	28.00%	24.72%
Information Ratio	-73.42%	-127.10%	20.37%	47.93%
Max Drawdown	-21.39%	-44.60%	-47.93%	-47.93%

Index total return contribution (QtD)

Top 5		Bottom 5		
Penumbra Inc	▲0.65%	Grifols Sa	▼	-0.66%
Alnylam Pharmace	▲0.62%	Azenta Inc	▼	-0.65%
Butterfly Networ	▲0.53%	Codexis Inc	▼	-0.55%
Guardant Health	▲0.51%	Catalent Inc	▼	-0.51%
Natera Inc	▲0.36%	Gn Store Nord	▼	-0.47%

Portfolio composition

Latest Additions	Latest Deletions
Privia Health Group	Emis Group
	Editas Medicine

Key ratios

	Current	Q3 2021
EPS	1.40	0.78
Price/Sales	4.09	7.37
BPS	17.51	16.16
P/E Positive	26.56	43.03
ROE	9.60	7.39
Price/Book	3.63	6.38
P/E (1y fwd)	34.79	53.45
P/E (3y fwd)	22.68	39.03
Sales (1y fwd)	5,591	4,967
Sales (3y fwd)	6,756	6,480

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	4.8%
MSCI World	4.3%
Nasdaq 100	3.4%
Total stocks = 78	

Fund Information

Ticker	DOCT LN	ISIN	IE00BK5BC677
TER	0.49%	Inception date	02/07/2019
Currency	USD	Index inception date	01-May-19
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Hydrogen Economy

Company spotlight

Bloom Energy

Bloom Energy is a solid oxide US fuel cell manufacturer and a pioneer in fuel cell technology and electrolysis. Fuel cells are the core unit of the electrolysis process as they convert fuel into electricity without combustion. In 1960 Bloom Energy created the first hydrogen fuel cell as part of NASA's Gemini programme. This was followed by the development of systems for space shuttles, missions and stations.

The Bloom Electrolyser is innovative because it is about 45% more efficient than other electrolysers that, operating at lower temperatures, require more energy. This efficiency gain is important to make green hydrogen economically accessible, considering that up to 80% of the cost of producing it is electricity.

Following a $200 million investment, in July Bloom Energy opened a new multi-gigawatt factory in California in which it provides clean energy and green hydrogen. The microgrid facilities that Bloom Energy installed provide a solution for the region to California's extreme weather events such as droughts, heatwaves and wildfires, as well as earthquakes, which have impacted the ability to provide resilient energy. The microgrids function like islands of energy resiliency that provide energy capacity 24/7, without polluting the air and protecting residents against outages caused by extreme weather, earthquakes and potential cyber attacks.

Bloom Energy works with several partners. In a recent collaboration with Taylor Farms, North America's largest producer of healthy fresh foods, Ameresco (a RENW member) and Concept Clean Energy, its fuel cells were used to install a microgrid capable of taking one of their California food processing facilities completely off the traditional energy grid and offering 24/7 independent power availability.

Last quarter performance commentary

The Solactive Hydrogen Economy Index NTR fell -14.3% over the quarter.

Positive news came from the US on clean hydrogen. First, with the approval of the Inflation Reduction Act (IRA), the US introduced the world's first tax credits for hydrogen production. While this may not be sufficient for commercialisation, it is a step in the right direction, as these credits of up to $3/kg can make clean hydrogen competitive with brown hydrogen in many areas of the US and potentially the cheapest in the world toward the end of the decade.

Secondly, the US released a draft of its first hydrogen strategy. If the goal of producing 10 million metric tons of hydrogen per year by 2030 is met, hydrogen production could be completely decarbonised in the US.

These policies can be a game changer for companies such as Bloom Energy that not only make fuel cells and electrolysers but are also involved in carbon capture, biogas, certified gas, marine, microgrids and primary power.

The main contributors to performance were US fuel cell manufacturers Bloom Energy (returned +21.2%) and Plug Power (+26.8%), and US hydrogen producer Cummins (+5.9%), supported by the IRA.
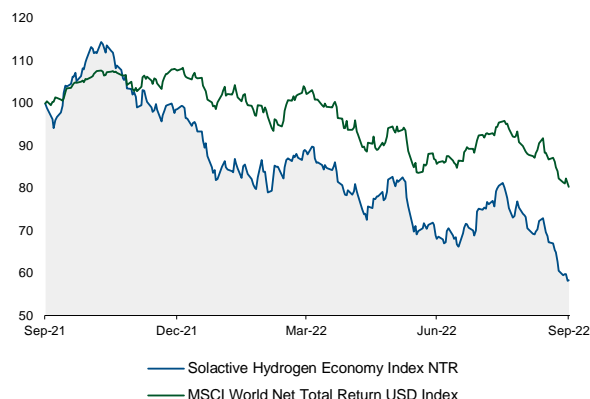
The main detractors were industrial mobility provider Weichai Power (returned -38.4%), German utility Uniper (-74.0%) and British fuel cell manufacturer Ceres Power Holdings (-38.4%). Weichai Power reported declines in sales, amid continuing lockdowns in China and supply chain issues impacting sales for its German subsidiary, Kion. As the gas crisis in Europe worsened, Uniper requested a bailout from the German government, which agreed to buy Fortum's 75% share and increase ownership to 98.5%. Ceres Power missed revenue expectations.

Hydrogen Economy

Performance

Historical performance (1y)*
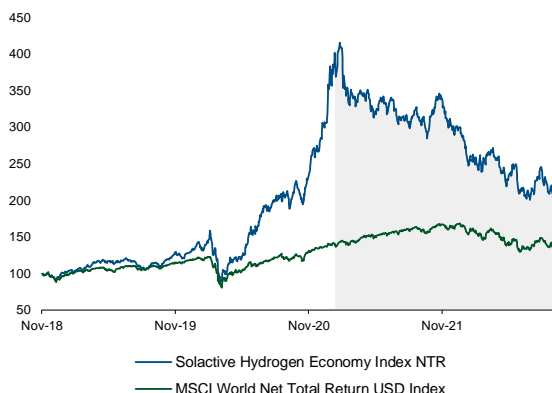
— Solactive Hydrogen Economy Index NTR
— MSCI World Net Total Return USD Index

Historical performance (5y)*

— Solactive Hydrogen Economy Index NTR
— MSCI World Net Total Return USD Index
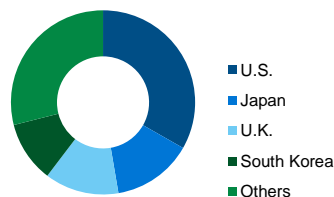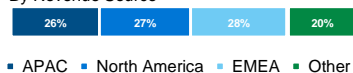
*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- ■ U.S.
- ■ Japan
- ■ U.K.
- ■ South Korea
- ■ Others

By Revenue Source

26%	27%	28%	20%

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Large

Mid

Small
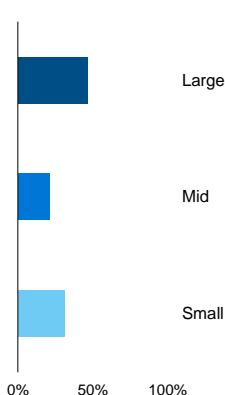
Index Performance*

Index Performance*	QtD	1 year	3 years
Cumulative Return	-14.27%	-41.66%	55.42%
Annualized Return			15.83%
Volatility	32.17%	29.27%	33.73%
Information Ratio	-142.18%	-142.42%	46.93%
Max Drawdown	-28.40%	-49.21%	-57.75%

Index total return contribution (QtD)

Top 5		Bottom 5		
Bloom Energy C-A	▲0.64%	Weichai Power-H	▼	-1.93%
Plug Power Inc	▲0.60%	Uniper Se	▼	-1.89%
Cummins Inc	▲0.19%	Ceres Power Hold	▼	-1.28%
Xebec Adsorption	▼-0.08%	Hyzon Motors Inc	▼	-1.19%
Afc Energy Plc	▼-0.09%	Itm Power Plc	▼	-0.99%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	- 0.04	0.12
Price/Sales	2.62	4.18
BPS	6.09	8.17
P/E Positive	15.36	17.78
ROE	- 3.03	5.14
Price/Book	1.89	3.39
P/E (1y fwd)	19.22	25.79
P/E (3y fwd)	15.07	16.93
Sales (1y fwd)	25,853	25,873
Sales (3y fwd)	23,681	23,391

Analyst recommendation**

Buy	Hold	

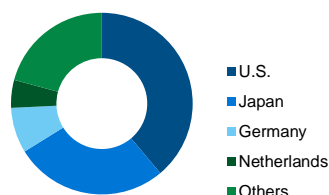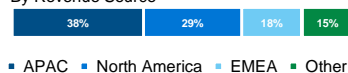100%   0%

Constituents overlap

S&P 500	0.7%
MSCI World	1.0%
Nasdaq 100	0.0%
Total stocks = 29	

Fund Information

Ticker	HTWO LN	ISIN	IE00BMYDM794
TER	0.49%	Inception date	10/02/2021
Currency	USD	Index inception date	26-Jan-21
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

The value of an investment and any income taken from it is not guaranteed and can go down as well as up;
You may not get back the amount you originally invested. Simulated past performance is not a guide to the future.

Optical Technology & Photonics

Company spotlight

Hamamatsu Photonics KK

Hamamatsu Photonics KK is a Japanese mid-cap photonics company and a leader in the field of optical detection technology. The firm's products include photosensitive electronic tubes, optical/image sensors, X-ray-related products, laser-related products, photodiodes, light-emitting diodes (LEDs) and video cameras used for measuring equipment. Such products have a wide range of applications spanning industrial equipment, consumer electronics, dental imaging, quantum technologies, automotive, optical communication and life sciences among other applications.

Hamamatsu Photonics reported operating income for the third quarter that beat the average analyst estimate. For example, the company's net income grew by more than +46% year-over-year while estimates predicted a 21% year-over-year increase. In addition, Hamamatsu Photonics completed construction of a building at its Joko factory site. The project is hoped to help boost production capacity to 1.7 times its current level.

Earlier this year the company acquired Danish company NKT Photonics through its subsidiary, Photonics Management Europe S.R.L. NKT Photonics is a fiber laser manufacturer with photonic crystal fiber production technology for ultrashort pulse laser amplification and fiber transmission. The company operates in Asia, Europe and North America through subsidiaries.

Last quarter performance commentary

The L&G Optical Technology & Photonics ESG Exclusions UCITS ETF was launched on 7th September 2022. We will start commenting on performance on the Q4 edition of the quarterly report.

Optical Technology & Photonics

Performance

Historical performance (1y)*
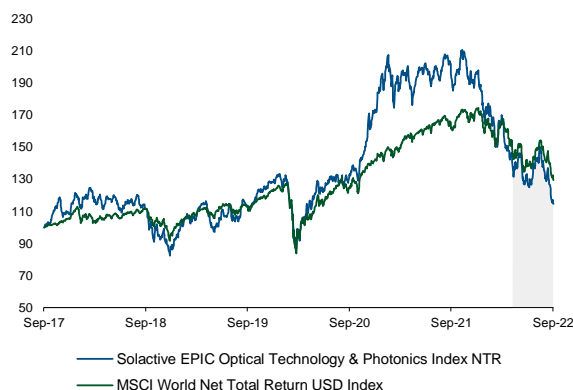
— Solactive EPIC Optical Technology & Photonics Index NTR
— MSCI World Net Total Return USD Index

Historical performance (5y)*

— Solactive EPIC Optical Technology & Photonics Index NTR
— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Japan
- Germany
- Netherlands
- Others

By Revenue Source

38%	29%	18%	15%

■ APAC ■ North America ■ EMEA ■ Other

Market Cap Breakdown

Large
Mid
Small

0%   50%   100%
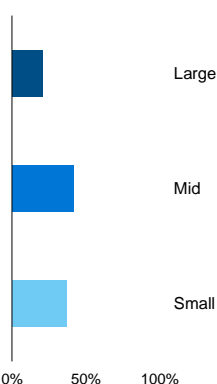
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-10.62%	-40.61%	0.97%	14.67%
Annualized Return			0.32%	2.77%
Volatility	26.92%	26.24%	24.81%	22.66%
Information Ratio	-133.64%	-154.84%	1.30%	12.25%
Max Drawdown	-23.30%	-45.34%	-45.34%	-45.34%

Index total return contribution (QtD)

Top 5		Bottom 5	
Fabrinet	▲0.53%	Sunny Optical	▼ -1.26%
Hamamatsu Photon	▲0.31%	Ams-Osram Ag	▼ -0.73%
Hoya Corp	▲0.24%	Bystronic Ag	▼ -0.62%
Desktop Metal-A	▲0.10%	Stratasys Ltd	▼ -0.60%
Novanta Inc	▲0.08%	Luna Innovations	▼ -0.57%

Portfolio composition

Latest Additions	Latest Deletions
no rebalancing in Q3	no rebalancing in Q3

Key ratios

	Current	Q3 2021
EPS	1.06	0.73
Price/Sales	2.45	4.30
BPS	13.17	10.08
P/E Positive	21.81	32.53
ROE	11.93	9.59
Price/Book	2.29	3.96
P/E (1y fwd)	33.64	37.04
P/E (3y fwd)	21.98	35.12
Sales (1y fwd)	2,749	2,763
Sales (3y fwd)	2,916	3,000

Analyst recommendation**

Buy	Hold
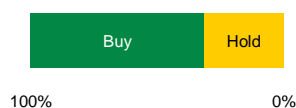
100%   0%

Constituents overlap

S&P 500	0.1%
MSCI World	0.8%
Nasdaq 100	0.0%
Total stocks = 38	

Fund Information

Ticker	LAZR LN	ISIN	IE000QNJAOX1
TER	0.49%	Inception date	07/09/2022
Currency	USD	Index inception date	06-May-22
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Pharma Breakthrough

Company spotlight

Sarepta Therapeutics

Sarepta Therapeutics is a US-based biopharmaceutical company focused on the discovery and development of unique RNA-based therapeutics for the treatment of both rare and infectious diseases, such as Duchenne muscular dystrophy (DMD), Limb-girdle muscular dystrophies (LGMDs) and other neuromuscular and central nervous system (CNS) related disorders. It has over 40 therapies in various stages of development (12 at discovery, 15 at pre-clinical, seven at clinical stage, and three at commercial stage that have been FDA-approved). The majority of these are for gene therapy (21), followed by RNA technologies (14) and gene editing (two). Gene therapy consists in adding a copy of a missing or malfunctioning gene, RNA technologies such as exon skipping allow to bypass gene mutations and gene editing consists in actually removing or excising certain exons, in order to treat the disease.

The company's mission is to shorten the time from lab to patient and build the world's largest gene therapy manufacturing capacity. In order to accelerate research, it has started strategic collaborations with industry and academic partners, including the Harvard University's Department of Stem Cell and Regenerative Biology.

In July the company's share price rallied as it planned to submit an accelerated approval application for one of its investigational gene therapies for muscular dystrophy, which had already been granted FDA Fast Track designation in 2020. The therapy has been developed in partnership with Roche, as the two companies work to accelerate access to the drug. The partnership leverages Sarepta's therapy research and Roche's global reach, commercial presence and regulatory expertise. Sarepta and Roche will share development expenses, but Sarepta will retain all rights in the US.

Last quarter performance commentary

The Solactive Pharma Breakthrough index fell -5.5% over the quarter.

Healthcare is one of the key items addressed by the Inflation Reduction Act (IRA). For the first time, Medicare, the US government healthcare scheme for the over 65s and disabled, will be able to negotiate drug prices, from which orphan drugs are exempt. The scheme will start with 10 drugs in 2026, rising to 60 by 2029, and manufacturers that hike prescription drug prices faster than inflation will have to pay a rebate. The pharmaceutical industry welcomed the block of the inflation rebate rule for the commercial market, which was eligible under the initial proposal of the act. Orphan drugs manufacturers based in the US were relieved to be excluded from the scheme, as it could have made certain drugs less attractive for firms to invest in and, according to some, threaten innovation. Meanwhile, the debate between investment and affordability continues in Europe, where the German Health Ministry shared a draft of the Financial Stability of the Public Health Insurance bill. If approved, it could cut reimbursements for prescription-only drugs and apply a charge to orphan drug manufacturers.

The main contributors to performance were Sarepta Therapeutics (returned +47.5%), Biogen (+30.9%) and Alnylam Pharmaceuticals (+37.2%), on the back of positive developments in the areas of muscular dystrophy, Alzheimer's and Hereditary Transthyretin-Mediated Amyloidosis, respectively.
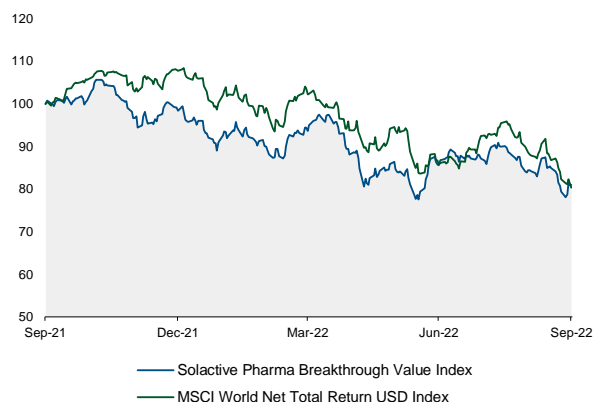
The main detractors were Grifols (-54.0%) on the back of earnings misses, Ultragenyx Pharmaceutical (-30.6%) on the back of mixed study updates on an Angelman syndrome therapy, and Emergent BioSolutions (-32.4%) on the back of earnings misses.

Pharma Breakthrough

Performance

Historical performance (1y)*
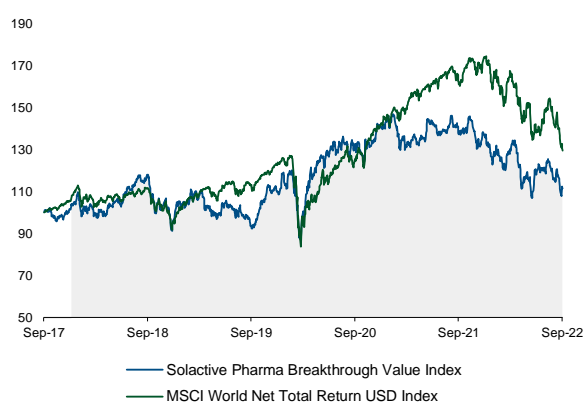
- Solactive Pharma Breakthrough Value Index
- MSCI World Net Total Return USD Index

Historical performance (5y)*

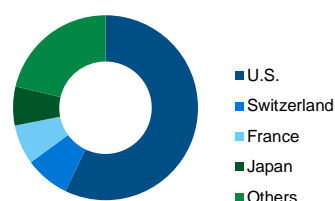- Solactive Pharma Breakthrough Value Index
- MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Switzerland
- France
- Japan
- Others

By Revenue Source

| 8% | 48% | 11% | 32% |

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

Large
Mid
Small

0%   50%   100%
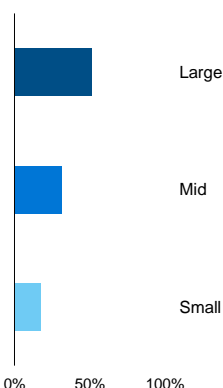
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-5.48%	-19.07%	19.17%	11.64%
Annualized Return			6.02%	2.23%
Volatility	18.17%	19.24%	20.95%	19.44%
Information Ratio	-110.43%	-99.21%	28.73%	11.45%
Max Drawdown	-14.08%	-26.64%	-27.35%	-27.35%

Index total return contribution (QtD)

Top 5		Bottom 5	
Sarepta Therapeu	▲1.42%	Grifols Sa	▼ -2.11%
Biogen Inc	▲1.09%	Ultragenyx Pharm	▼ -0.98%
Alnylam Pharmace	▲1.05%	Emergent Biosolu	▼ -0.87%
Ptc Therapeutics	▲1.01%	Pharma Mar Sa	▼ -0.85%
Ionis Pharmaceut	▲0.88%	Sino Biopharm	▼ -0.84%

Portfolio composition

Latest Additions		Latest Deletions	
Amicus Therapeutics	Beigene	Amryt Pharma	Johnson & Johnson
Basilea Pharmaceutica	Sanofi	Endo International	Kyowa Kirin
Travere Therapeutics	Xencor	Genmab	Nektar Therap.
Supernus Pharmaceuticals		Halozyme Therap.	Oxford Biomedica
Seagen		Ionis Pharmaceuticals	Sarepta Therap.

Key ratios

	Current	Q3 2021
EPS	2.21	2.13
Price/Sales	4.25	5.19
BPS	15.50	14.75
P/E Positive	16.75	21.02
ROE	13.45	11.88
Price/Book	3.38	4.81
P/E (1y fwd)	14.50	19.07
P/E (3y fwd)	15.31	17.04
Sales (1y fwd)	10,207	8,410
Sales (3y fwd)	10,578	10,578
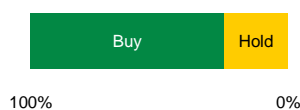
Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	1.7%
MSCI World	2.6%
Nasdaq 100	1.4%
Total stocks = 32	

Fund Information

Ticker	BIOT LN	ISIN	IE00BF0H7608
TER	0.49%	Inception date	23/01/2018
Currency	USD	Index inception date	03-Jan-18
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

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Robotics and Automation

Company spotlight

Harmonic Drive

Harmonic Drive is a Japanese company that develops enabling technologies for motion control. In its 60-year track record, it has developed its flagship products: the Harmonic Drive® strain wave gears and the Harmonic Planetary® gears, that are used in a wide array of industries.

The company dominates the global market for small high-precision speed reducers, a critical component of small robotics systems, with an 80% share. As such, it is a major beneficiary of the explosive growth in demand for collaborative robots, the next generation of industrial robots that can work seamlessly with human operators. Over the past five years, Harmonic Drive nearly doubled its annual revenue to over $500m in 2022, for a 13% CAGR, and has faced a tsunami of orders in 2021 as robot manufacturers rushed to secure speed reducers in the face of constrained capacity.

ROBO Global estimate that demand from cobot manufacturers such as Universal Robot and Fanuc accounts for a high single-digit percentage of the company's revenue, leaving ample room for further rapid growth over the next five years as the cobot market continues to grow at a 20-30% annual pace. They expect Harmonic Drive to double its revenue again by 2027. The company's order backlog stood at more than JPY50bn in March 2022. While the market was quick to punish the stock for the recent decline in orders from extremely high levels, this has simply reflected a normalization of ordering patterns. Harmonic Drive presents a high degree of cyclicality in revenue but its profitability (30% EBITDA margin) and returns on capital are remarkable and a reflection of its strong technology and market leadership.

Last quarter performance commentary

The ROBO Global Robotics and Automation UCITS Index fell -7.5% over the quarter.

While earnings estimates for 2022 and 2023 have been cut by 1-3% over the past three months, revenue estimates have seen marginally positive upgrades and currently point to 12% sales growth for 2022 and 9% for 2023.

In Factory Automation, which accounts for around a third of the index by revenue, concerns are mounting that the increasingly recessionary environment could derail the strong growth trajectory we have seen in the past two and a half years. The global manufacturing PMI has now fallen below 50, which has historically led to capex downcycles. However, order backlogs at market and technology leaders remain extraordinarily high and provide business leaders with much better visibility than in prior soft markets. While we anticipate the demand environment in Europe to remain weak, we continue to see strength in North America, where robotics orders rose 25% to a new record high in 2Q to over 12,300 machines. We also expect Japanese companies, which account for 22% of the index and have a combined 40% share of the world's industrial robot market, to benefit from the depreciation in the Japanese yen, which provides a substantial cost advantage.

The main performance contributors were iRobot (returned +53.3%), acquired by Amazon in its fourth largest acquisition to date, and Tecan Group (+20.0%) and National Instruments (+21.7%) on the back of earnings beats.
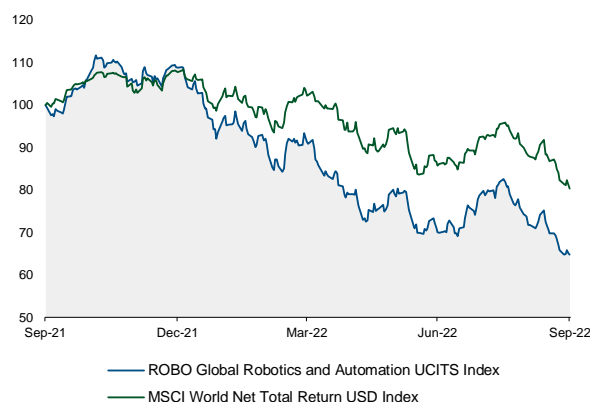
The main detractors were diagnostic and genomics solutions provider Azenta (-40.6%), on the back of a normalisation of COVID-19-related demand; Ocado (-44.7%), due to higher costs and customer behaviour; and Airtac International (-29.6%), due to a weak outlook.

Robotics and Automation
Performance

Historical performance (1y)*
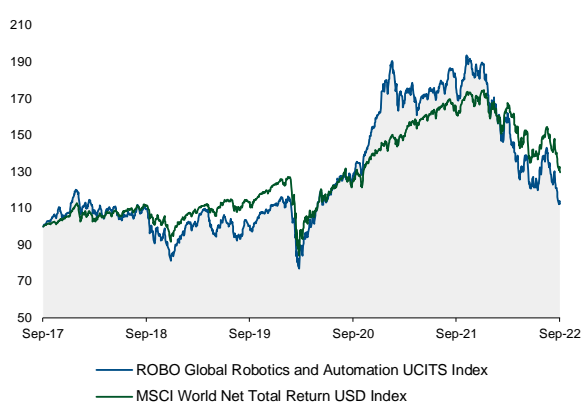
— ROBO Global Robotics and Automation UCITS Index
— MSCI World Net Total Return USD Index

Historical performance (5y)*

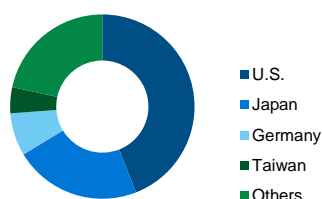— ROBO Global Robotics and Automation UCITS Index
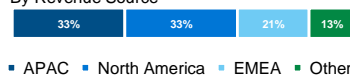— MSCI World Net Total Return USD Index

*Source: Bloomberg. The backtested index data has been sourced from the index provider and is based on what they perceive to be reasonable assumptions and objective data; The index data is gross of fees/costs but is net of withholding taxes. The effect of fees and charges would reduce the returns shown. Shaded area indicates live period of the index. Simulated past performance is not a guide to the future.

Geographical Breakdown

By Domicile

- U.S.
- Japan
- Germany
- Taiwan
- Others

By Revenue Source

33%	33%	21%	13%

- APAC
- North America
- EMEA
- Other

Market Cap Breakdown

Large

Mid

Small

0%   50%   100%
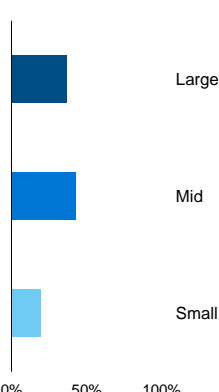
Index Performance*

Index Performance*	QtD	1 year	3 years	5 years
Cumulative Return	-7.47%	-35.20%	11.84%	12.30%
Annualized Return			3.80%	2.35%
Volatility	25.21%	23.93%	22.90%	20.62%
Information Ratio	-105.25%	-147.21%	16.60%	11.38%
Max Drawdown	-21.58%	-42.02%	-42.02%	-42.02%

Index total return contribution (QtD)

Top 5		Bottom 5	
Irobot Corp	▲0.81%	Azenta Inc	▼ -0.76%
Tecan Group Ag-R	▲0.26%	Ocado Group Plc	▼ -0.57%
Natl Instruments	▲0.25%	Airtac Internati	▼ -0.51%
Irhythm Technolo	▲0.21%	Hiwin Tech	▼ -0.44%
Krones Ag	▲0.20%	Kion Group Ag	▼ -0.42%

Portfolio composition

Latest Additions	Latest Deletions
Estun Automation	iRobot
	Siasun Robot & Automation

Key ratios

	Current	Q3 2021
EPS	1.51	1.02
Price/Sales	2.92	4.89
BPS	14.30	14.76
P/E Positive	24.11	39.53
ROE	12.27	11.23
Price/Book	3.20	4.89
P/E (1y fwd)	31.56	37.17
P/E (3y fwd)	21.76	35.11
Sales (1y fwd)	5,578	6,049
Sales (3y fwd)	6,417	6,326

Analyst recommendation**

Buy	Hold

100%   0%

Constituents overlap

S&P 500	3.1%
MSCI World	2.9%
Nasdaq 100	4.6%
Total stocks = 81	

Fund Information

Ticker	ROBO LN	ISIN	IE00BMW3QX54
TER	0.8%	Inception date	27/10/2014
Currency	USD	Index inception date	17-Jun-14
Securities lending	No	Replication method	Physical

Source: Bloomberg, LGIM; All values are based in USD; As of close of 30-September-22. Please refer to the end of this report for all definitions. **Analyst recommendation is based on average recommendations for each company.

Key risk

The value of an investment and any income taken from it is not guaranteed and can go down as well as up;
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Glossary

Calculation methodology for performance statistics:

Cumulative Return: Total return of the index net of withholding taxes over the given period.

Annualized Return: Annualized total return of the index net of withholding taxes over the given period.

Volatility: Annualized standard deviation of daily returns over the given period.

Information Ratio: Annualized return divided by annualized volatility.

Max Drawdown: Maximum % loss from the peak to the trough in the given period.

Large Cap: Companies whose market cap is larger than $5bn.

Mid Cap: Companies whose market cap is comprised between $2bn and $5bn.

Small Cap: Companies whose market cap is lower than $2bn.

Analyst Recommendation: Average of recommendations made by analysts for each stock on Bloomberg, which does not constitute a recommendation to buy or sell any security.

Calculation methodology for key ratios statistics:

EPS: Median of last 12 months earnings per share for each index component.

Price/Sales: Median of stock prices divided by sales per share of all index components.

BPS: Median of total equity divided by the number of shares of all index components.

P/E positive: Median of net income divided by the average total common equity for each index component.

ROE: Median of estimated dividend amount divided by the current stock price for each index component.

Price/Book: Median of stock prices divided by the total equity per share for each index component.

P/E (1y fwd): Median of stock price divided by index estimated earnings next year for each index component.

P/E(3y fwd): Median of stock price divided by index estimated earning in three years for each index component.

Sales (1y fwd): Average of estimated sales next year for each index component.

Sales (3y fwd): Average of estimated sales in three years for each index component.

ETF Investment Strategies

Aanand Venkatramanan
Michael Stewart
Aude Martin
Tobias Merfeld
Elisa Piscopiello
Karan Bhanot

Contact us:

For any questions on this report, please contact your usual LGIM representative or email fundsales@lgim.com. All calls are recorded. Call charges will vary.

+44 345 070 8684

fundsales@lgim.com

lgim.com/uk-etf

Important information

Key risks

Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested. Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.

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