CERNO CAPITAL

CERNO *Global Leaders* (Dublin)

Cerno Investment Funds ICAV (Class A)

Q2-2023

Investment Objectives

TM Cerno Global Leaders invests in global companies with sustainable competitive advantages delivering above average returns. Its target is to achieve long term growth in value. The fund will hold no more than 30 securities, equally weighted, selected according to a distinct investment thesis that accents industry structure, the sustenance of return on capital and secular growth. The fund does not invest in banks, commodity, fossil fuel or tobacco companies. The portfolio is fully invested at all times.

Fund Data

NAV/Share (Class A Acc)	£9.76
Fund Size (£mn)	32
Currency Share Class	GBP (Base)
Investment Management Charge	0.65%
Ongoing Charges Figure	1.36%*
Dealing Frequency	Daily
Legal Structure	ICAV
Number of Holdings	27
Active Share	95%
Lead Manager	James Spence
Inception Date Fund	2021
Inception Date Strategy	2014

Portfolio Review

The portfolio returned +3.2% in the 2Q and +12.0% YTD. Since the recent bottom of the global equity market in October 2022, the portfolio has returned +19.4% after fees. This compares with +11.9% for the World Index in GBP over the same period.

Security selection accounts for the excess return, with many portfolio names making good returns over the quarter led by **Adobe** + 26.9%, **Philips** +22.9%, **Microsoft** +18.1% and **Samsung Electronics** +12.8%. Detractors were **Thermo Fisher** -9.4%, **Novozymes** -9.4%.

The other factor that has played across valuations in this quarter has been the re-emergence of banking worries with the failure of Silicon Valley Bank and the forced take-over of Credit Suisse First Boston

James Spence

The movement in some of the leading Technology names in the portfolio mirrors that of the NASDAQ, which was the best performing mainstream equity index in the world over the quarter. Technology companies were already making strong recoveries from the de-rating that took place in the first three quarters of 2022 and they have received an additional boost via the enthusiasm towards generative AI. Whilst our investments are not deliberately geared to AI, we find the portfolio is well represented in this area, both as developers and deployers. Any incremental sales will add to what are already strong businesses. Please also see Ion Sioras' pice on AI exposure later in this report.

It should be noted, though, that performance in the quarter and year to date was not solely predicated on the Technology sector. Other strong performers in the portfolio were **Philips** which continued its recovery from the significant de-rating as a consequence of the global recall on its sleep apnoea devices, **Atlas Copco** which continues to report strong trading conditions for its market leading compressors, **Zimmer Biomet** based on continued recovery in post Covid surgery procedures, **Rockwell** which is a prime beneficiary of connected industrial facilities and **PPG** which recovered its margin very impressively following significant input price pressure last year.

There were no changes to companies held during the quarter.

Themes, developments and current areas of attention within the portfolio

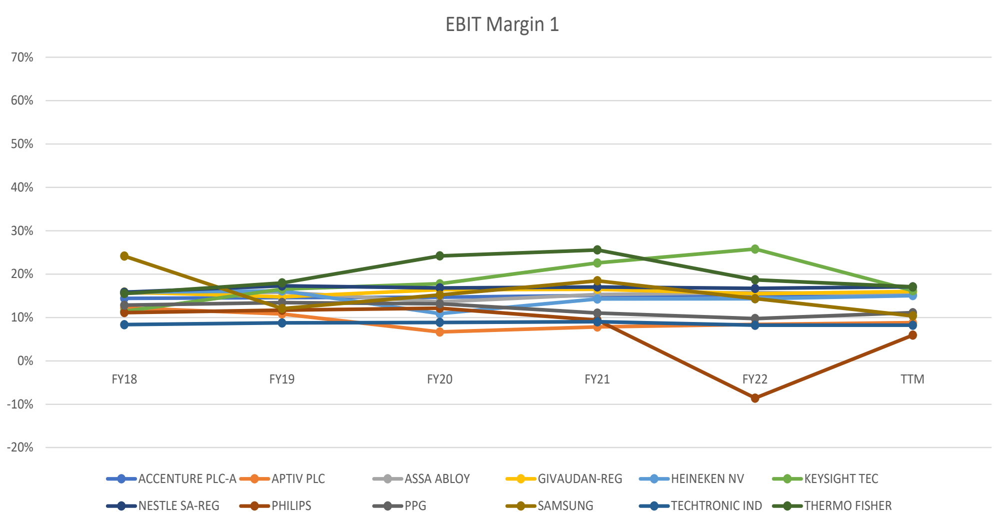
We run through three noteworthy areas of corporate development that have consequence for companies in the portfolio and wider performance in equity markets. These are, in turn, margins, acquisitions and Artificial Intelligence.

1. Margins

When it became clear that inflation was not a transitory phenomenon but something that would last longer and even prove problematical to defray, the common assumption was that the inflation would tell on corporate margins.

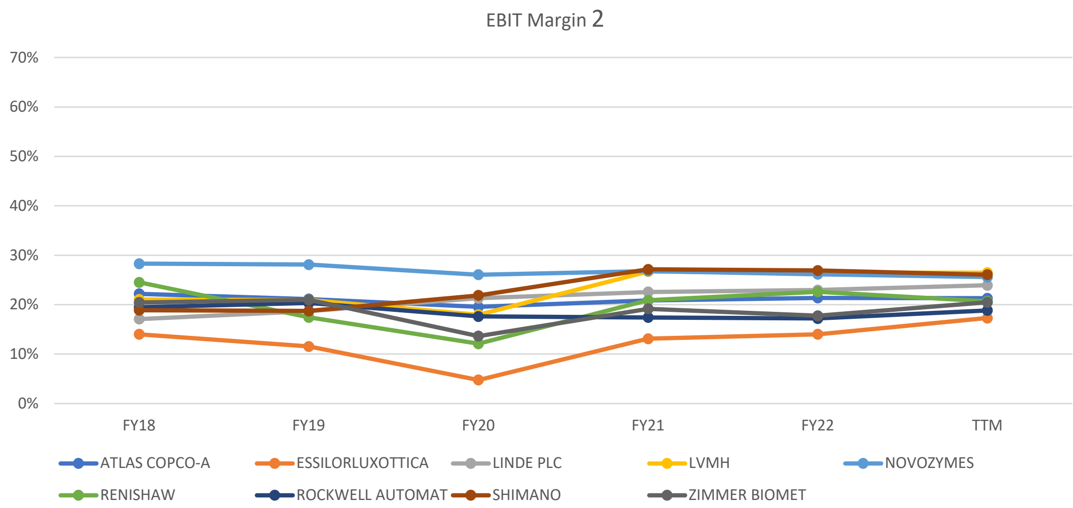
This has not proven to be the case in portfolio companies. The below three charts exhibit Earnings Before Interest and Tax (EBIT) for portfolio companies over the past 8 quarters.

Chart 1 shows the evolution of 8 companies whose margins have actually risen over the period



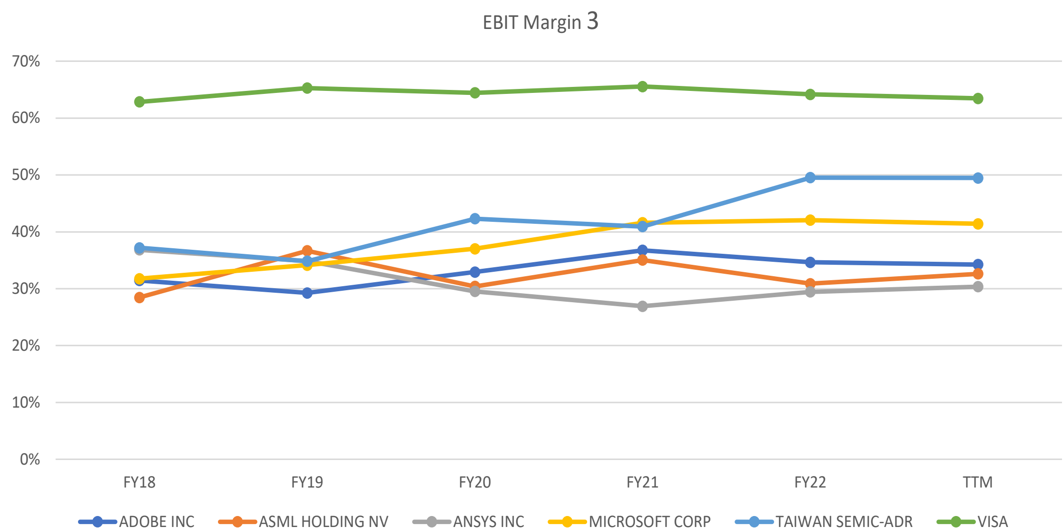
Source: Cerno Capital/Bloomberg, 30th April 2023

The second chart shows the evolution of 5 companies whose margins have remained constant.



Source: Cerno Capital/Bloomberg, 30th April 2023

The final chart shows the evolution of the balance of companies whose margins have declined at some stage during the period under review.



None of the above drops were inimical to profits other than the provisioning that took **Philips** into loss for one quarter.

The general picture is one of italicise corporate health. Whilst it is clear that leading companies have repriced into an inflationary environment, it could also be suggested that they, in turn, have been an instigator of inflation or the second wave of. As to what extent this garners adverse attention is not fully known. However, none are supermarkets, none are providers of basic necessities outside of some of **Nestlé**'s products. One (**LVMH**) sits in the luxury segment where prices increases are deliberate and convey exclusivity and cachet. Most are embedded in highly specialised, industrial supply chains so inflation is somewhat hidden from general view. **VISA** benefits from inflation as it takes a small, constant margin on inflating transactions values.

The part that is yet to be determined is how companies selling at higher unit prices fare in a softer demand world, if that transpires. The next 12 months, to some extent, will be a voyage into that world. Even if it does, the portfolio approach will not change, as our thesis is that leader companies generally improve their market positions during downturns.

2. Acquisitions

Mergers and acquisitions, normally acquisitions, have proved a lucrative avenue to growth for portfolio companies over their sometimes long corporate histories. **LVMH** is so much more than the two brands cojoined into their acronym and as recently as 2021 completed its acquisition of Tiffany. **Zimmer Biomet** is the union of two companies Zimmer and Biomet. **PPG** and **Assa Abloy** are prodigious acquirers at a rate as high as 15 or more per year. They are aggregators of complimentary brands. Frame maker **Luxottica** achieved near perfect vertical integration via its merger with lens maker **Essilor**.

However, the regulatory background to acquisitions has undergone change with 4 key authorities weighing in to a greater extent than they have done in recent years. They are the UK's CMA, Europe's European Commission and the US Department of Justice (DoJ) and Federal Trade Commission (FTC). Deregulation and re-regulation tend to occur in long wave cycles and we appear to be in an upswing.

This is part explained by 3 Democratic administrations in the US (interspersed by "burn down the house" Trumpian economics), growing institutional aversion to US mega-Tech enterprises in Europe and the UK's CMA feeding off the general trend.

It is now widely recognised that many totemic acquisitions, notably that of Instagram by Facebook, would and could not take place in the reset of competition regulation.

The regulators have weighed in recently on three prospective acquisitions by portfolio companies.

The first is **Assa Abloy**'s acquisition of HHI which has been resolved via disposals, prompting the following decision release:

"**ASSA ABLOY** and the U.S. Department of Justice (DOJ) have reached a settlement agreement related to **ASSA ABLOY**'s acquisition of Spectrum Brands' Hardware and Home Improvement division (HHI). The settlement will put an end to the trial proceedings of the District Court for the District of Columbia.

In connection with the settlement and pursuant to the proposed final judgment filed with the court today, **ASSA ABLOY** will proceed with the divestment of Emtek and the Smart Residential business in the U.S. and Canada to Fortune Brands."

This follows a convention path where the acquirer horse-trades divisions of either their own or the acquiree's business to meet regulators' approval.

The second is **Microsoft**'s planned acquisition of Actvision, the game developer and publisher.

The CMA opined as follows: "In relation to cloud gaming services, we found that **Microsoft** already has a strong position. It owns a popular gaming platform (Xbox and a large portfolio of games), the leading PC operating system (Windows), and a global cloud computing infrastructure (Azure and Xbox Cloud Gaming), giving it important advantages in running a cloud gaming service. With an estimated 60-70% market share in global cloud gaming services, it is already much stronger than its rivals."

"We found that the Merger would make **Microsoft** even stronger and substantially reduce competition in this market. We found that Activision's titles—including CoD, World of Warcraft, and Overwatch—will be important for the competitive offering of cloud gaming services as the market continues to grow and develop. We found that, after the Merger, **Microsoft** would find it commercially beneficial to make Activision's titles exclusive to its own cloud gaming service. Given its already strong position, even a moderate increment to **Microsoft**'s strength may be expected to substantially reduce competition in this developing market, to the detriment of current and future cloud gaming users."

Microsoft's initial set of responses suggested that they were irked by this. The obvious avenue is via appeal, which **Microsoft** has taken stating the CMA has made "fundamental errors" in their decision. Separately, a US federal judge rules in favour of **Microsoft** and against the US FTC which aimed to block the transaction, a considerable fillip to **Microsoft**'s ambitions.

The third case is **Adobe**'s planned acquisition of Figma. In recent results presentations **Adobe**'s enthusiasm for Figma was unbounded. The executives of **Adobe** clearly regard it as transformative and a meaningful step forward in how creative work will be done within teams.

In this case, the European Commission stated: "On the basis of the information provided by the referring countries, and without prejudice to the outcome of its full investigation, the Commission considers that the transaction meets the criteria for referral under Article 22 EUMR."

"In particular, the transaction threatens to significantly affect competition in the market for interactive product design and whiteboarding software, which is likely at least EEA-wide, and, therefore, in the referring countries. The Commission also concluded that it is best placed to examine the potential cross-border effects of the transaction."

The EU has since set August 7 as a deadline whether to launch a full-scale investigation and **Adobe**'s CEO has stated "We remain confident in the merits of the case as Figma's product design is an adjacency to **Adobe**'s core creative products and **Adobe** has no meaningful plans to compete in the product design space," a company spokesperson said. "We look forward to establishing these facts in the next phase of the process."

These hindrances should not be ignored and have a wider theme underpinning them. That is the manifest unease of governments as to the acquisition of power within global companies whose corporate officers are part of a global elite.

- James Spence

Ion Sioras

Artificial Intelligence in the Global Leaders Portfolio

The step change in computing power achieved over the past 18 months has allowed for the commercialisation of a new class of neural networks. The capabilities of these larger neural networks have been most effectively showcased in the deployment of large language models (LLMs) such as ChatGPT or similar.

ChatGPT and other LLMs allow for a neural network to parse human speech and develop "natural" responses that replicate contextual understanding and can appear as "intelligence".

These demonstrations have created justifiable excitement about how such neural networks may evolve and what other capabilities they may display. An increased cadence of advancement in their capabilities could rapidly herald new growth vectors in a multitude of industries.

Microsoft – Chatting with ChatGPT

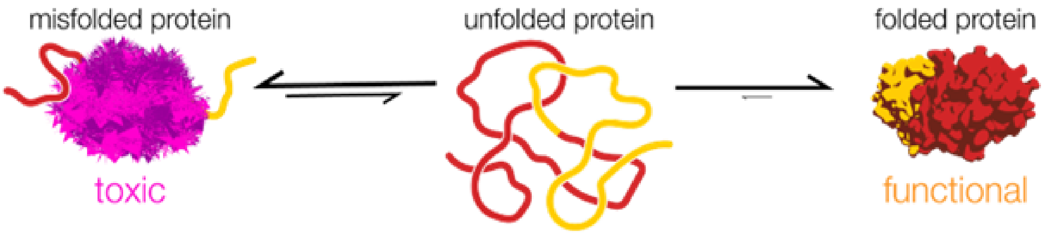
The most prescient of the Global Leader companies in the current AI/LLM boom seems to be **Microsoft**. Through its initial investment into OpenAI in 2019 and subsequent additions of capital into that firm, **Microsoft** has laid claim to the intellectual property of what appears to be the most cutting edge LLM available today. The productivity gains of interacting with ChatGPT have already been experienced by large parts of the general population through the open access that OpenAI provides to the software. Indeed, experiments are ongoing in companies around the world on how to integrate ChatGPT into workflows and how to optimise or eliminate low complexity but time consuming tasks.

Microsoft is taking this concept much further, by deploying the algorithms behind ChatGPT into its vast suite of software including **Microsoft** Teams, Github Copilot in the form of assistive coding and the optimisation of the Bing search algorithm, which has yielded market share gains versus the incumbent, Google. This renaissance of capability likely cements **Microsoft**'s already formidable market position in its Office product line and expands its competitive position in less penetrated markets. The combination seems so successful that we would not be surprised to see anti-trust involvement in the future if OpenAI's technological lead remains substantial.

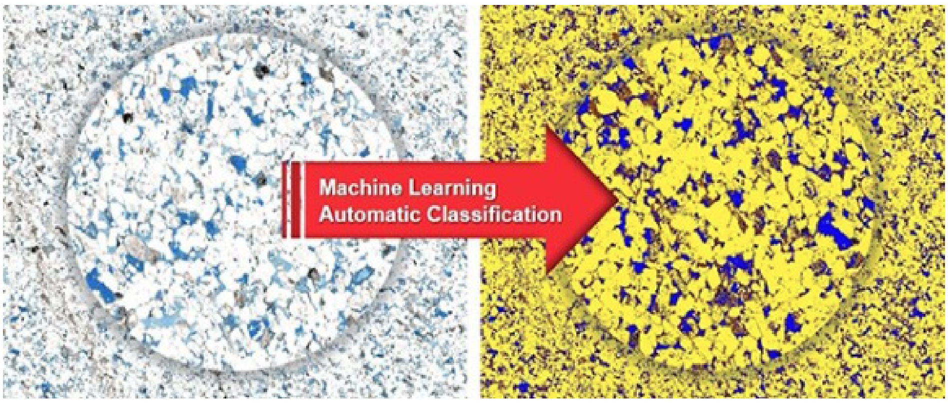
Thermo Fisher Scientific – Merging silicon with biology

Thermo Fisher Scientific (TMO) has been an applier of AI methods before the latest excitement over LLMs. Software underpinning TMO hardware such as mass spectroscopy machines and electron microscopes utilises automation in every step from calibration to data collection to analysis. This automation creates large productivity and throughput enhancements for end users deploying TMO products in their research.

In 2021 TMO collaborated with MSAID to provide AI assistance for the identification of peptides within its Proteome Discover software. Proteomics, or the study of proteins, is a notoriously intractable research area due to the complexity and variability of protein formation. It was in-fact one of the first areas of biotechnology research to admit massively parallel computing methods, through the distributed Folding@Home program of the 2000s.



Thermo Fisher also utilises machine learning algorithms in its Amira-Avizo software to assist in image recognition in large data sets. The software platform allows for "deep learning" training on an existing image set to then be able to identify and select new images from incremental data runs. These examples, in our view, demonstrate a total familiarity and integration of AI methodologies in the TMO product set.



Philips

In its transition to a pure play medical devices company, Philips is also deploying AI technologies across its product suite. The latest models of Philips CT scanners feature machine learning to assist in both the calibration and image analysis of CT scans. Machine learning assisted CT scan analysis has yielded increases in both the speed and accuracy of diagnosis.

In comparable medical fields such as AMD identification from eye scans, as pioneered by Deep Mind, deep learning algorithms are now considered on par or exceeding trained human analysis.

Aptiv – Your (AI) driver will be arriving shortly

Aptiv is one of the most natural bedfellows for the application of AI technologies. Aptiv can be described as providing the "brains and nervous system" for the multitude of sensors underpinning the latest vehicles, in both ICE and EV varieties. Aptiv has historically built connectivity and processing packages for auto-manufacturers but since 2020 has co-founded its own autonomous vehicle company, Motional, in association with Hyundai.

Aggregating the various assistive technologies it provides for modern vehicles, Aptiv has built what it names its "Gen 6 ADAS platform". This platform provides the autonomous driving technology for a Hyundai Ioniq 5 vehicle shell to achieve self-driving.

Aptiv's pursuit and success in this area is directly linked to the availability of new machine learning capabilities which the company has leveraged to interpret and process incoming sensor data at the speeds required for successful self-driving. The success of this program is illustrated by the Lyft/Motional self-driving taxi service available in Las Vegas since 2022.

Conclusions

Whilst it would be true to state that we have not invested in a company solely on its potential in the commercialisation of AI, at the same time, it is no surprise to find that many of the portfolio companies are well placed to benefit.

As can be seen from the captioned below slide from recent Investor Updates, we have identified 11 companies in the portfolio that are, to some, extent, geared into this generation of AI tools. Some are suppliers, some are beneficiaries.

AI SUPPLIERS & BENEFICIARIES

IN CERNO EQUITY PORTFOLIOS

SUPPLIERS

BENEFICIARIES

The rationale for each of these eleven is captioned in this table:

Suppliers	
ASML/TSMC	Equipment and foundry supply to Nvidia GPUs used for AI training
Samsung	Increasing demand for memory in big data
Atlas Copco/Ansys	Suppliers to foundries and chip designers

Beneficiaries	
Microsoft	OpenAI - Office suite/security products enhanced by AI
Accenture	AI/security consultant
Adobe	Firefly - AI enhanced Creative suite, with text to image capabilities
Aptiv	Auto software - signal processing, power distribution, connectivity
Thermo Fisher	Enhanced CRO molecule discovery/matching capabilities
Philips	AI driven surgical and medical imaging capabilities

-Ion Sioras

CERNO CAPITAL

CERNO *Global Leaders* (Dublin)

FUND FACTS

Holding History

Company Name	Description	Holding Peirod*
Samsung Electronics	Dominant in semiconductor memory chips and leader in smartphones	>10 years
Nestle	Diversified global food & beverage company	>10 years
Visa	Largest global electronic payments network	>10 years
Zimmer Biomet	Leading orthopaedic care specialist	>9 years
Linde	Largest industrial gas provider in the world	>9 years
Renishaw	Engineering specialist focused on equipment for precision measurement	>9 years
PPG	Coatings company leading in the industrial/specialty business	>8 years
Shimano	Dominant supplier of cycling componentry	>8 years
Givaudan	Leading player in the Flavours and Fragrance industry	>7 years
Novozymes	Produces enzymes which application in a wide variety of daily products	>7 years
Assa Abloy	World's leading manufacturer of security locks and automatic doors	>7 years
LVMH	The largest luxury goods conglomerate and most diversified	>6 years
EssilorLuxottica	Vertically integrated producer of luxury, fashion and sports eyewear	>6 years
Heineken	Brewer with a strategic bias to premium beer, interests in low alcohol/craft	>5 years
Atlas Copco	Dominant producer in air compression and vacuum techniques	>5 years
TSMC	World's largest pure-play semiconductor foundry	>4 years
ASML	Leading photolithography tools manufacturer for the semiconductor industry	>3 years
Microsoft	Dominant player in computing operating system and business software platform	>3 years
Philips	Healthcare technology company serving professional and consumer markets	>3 years
Accenture	Independent technology consultant and outsourcing provider globally	>3 years
Aptiv	Leader in smart vehicle architecture enabling autonomous driving	>2 years
Techtronics	Global leader in power tools and floor care	>1 year
Adobe	Dominant digital creativity software and marketing CXM tool provider	>1 year
Rockwell	Largest pure play in industrial automation and control processes	>1 year
Thermo Fisher	Diversified provider of scientific instrumentation, medical reagents and consumables	>1 year
Keysight	Global leader in testing and validation of products utilising the electromagnetic spectrum	>1 year
Ansys	Leading developer of digital simulation software for product development	>1 year

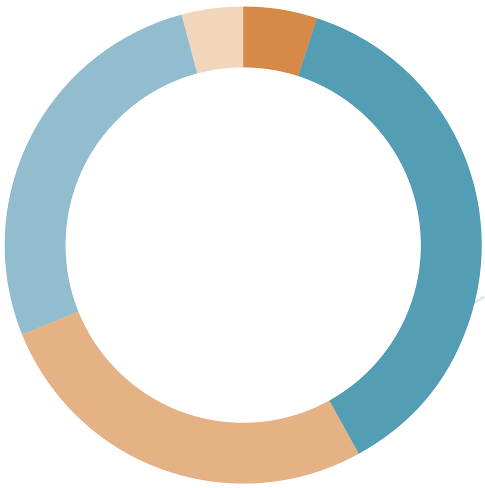
*Holding periods since inception of strategy

Sales by Geography

Global Leader companies are, by definition, global in their sales. Their domiciles are not an investment consideration and most of the companies have outgrown their home market base many decades ago.

The perceived reliability of the earnings of constituent companies and the fact that they have commanding market shares in their industries means that they will trade at a premium to wide equity market aggregates. The question is how much? The portfolio has an aggregate Return on Equity of 23% versus 14% for the World Equity Index.

We aim to rationalise margins, earnings consistency and economic value against the price paid. The fund's approach to vaulation could be described as growth at a reasonable price (GARP).



Sales by Geography

- North America - 39%
- Asia - 28%
- Europe - 26%
- Latin America - 4%
- Rest of World - 3%

Performance

Year Ended	June 2023	Since Inception
Net Performance	+17.5%	-2.4%

Fund Codes

	ISIN:	SEDOL:	Bloomberg:
A Acc	IE00BMG4G674	BMG4G67	CEGLANH ID

Key Fund Information

NAV/Share Class (Acc)	£9.76
Fund Size (£mn)	32
Currency	GBP (Base)
Administrator	Maples Fund Services (Ireland) Limited
Fund Custodian	Sumitomo Mitsui Trust (UK) Limited
Auditor	Grant Thornton
Fund Legal Structure	ICAV
Inception Date - Fund	February 2021
Key Fund Documents	cernocapital.com/cerno-global-leaders-dublin
Ongoing Charges - Class A (incl. Management Fee)	Management Fee 0.65% Other Fees (incl. running costs) 0.71% OCF 1.36%
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