WALTER SCOTT

BNY MELLON | INVESTMENT MANAGEMENT

The RESEARCH JOURNAL

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FOREWORD

JANE HENDERSON
Managing Director

Jane is Managing Director of Walter Scott. Having joined the firm in 1995 as an investment analyst, she has held a range of investment, management, client service and governance responsibilities and was instrumental in the development of the firm's US investment strategy. Jane co-chaired Walter Scott's Investment Management Group before becoming Managing Director in 2010. She holds a BSc (Hons) in Marine and Environmental Biology from the University of St Andrews.

Since the first edition of our *Research Journal* in 2013, our 'On the Road' reports have been a regular feature, so I am delighted that in this 13th edition we have been able to resume these accounts of our research trips. With travel restrictions now lifted, the Research team's diary is packed with company meetings, conferences and conversations with experts around the world. These research trips have always been varied, and we reflect that variety in this edition, alongside the enduring importance of virtual meetings and our ever-present desk research.

We now know that this combination of on-the-ground and virtual research offers many advantages – perhaps most notably being able to reach company management teams and academic experts more easily. But we continue to evaluate the best way to undertake the in-depth and multifaceted research integral to our investment approach.

The illusory appeal of trends and 'in vogue' subjects is something that as long-term investors we are always alert to. Soundbites are much easier to craft than to implement. Take net zero. In this edition, we try to go beyond the hyperbole as Rob West of research consultancy, Thunder Said Energy lays out the possible reality of the energy transition. The question of how we marry short-term energy demand with a long-term energy transition is a complex one. As Rob points out, we might be forced to collectively answer that question very soon.

"With travel restrictions now lifted, the Research team's diary is packed with company meetings, conferences and conversations with experts around the world."

Of course, not all trends are illusory. Some have profound long-term potential, which the world's best companies can exploit. These companies have the competitive position, balance sheet strength and management experience to continue to invest and innovate to maximise the opportunities. Fundamental shifts in the way we live, such as new payment systems or food production technologies, are long-term changes with exciting growth opportunities that span decades. We cover both of these topics in this edition.

Spotting and understanding fundamental shifts and identifying companies with the attributes to benefit from those changes is what we do. We hope this edition gives you a strong sense of that work and our thinking.

We relish the opportunity to share our thoughts and be challenged on our views. So if the *Research Journal* prompts questions or sparks interest in any area, please do get in touch. For now, I do hope you enjoy this latest edition.

With best wishes,

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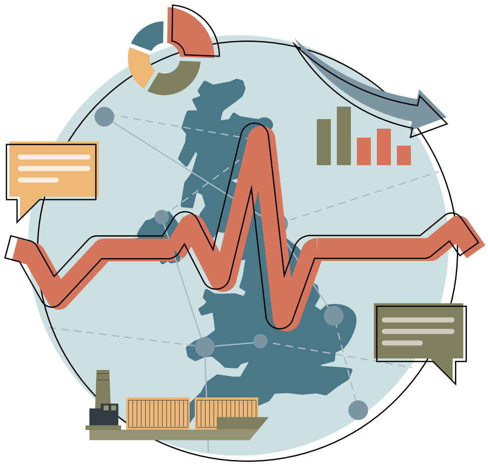
ON THE ROAD

ON THE ROAD

TAKING THE PULSE OF UK PLC



What can a meeting of some of the UK's leading business minds tell us about corporate confidence?

ASHLEY-JANE KYLE
Investment Manager

Ashley-Jane is an investment manager at Walter Scott, who joined the firm in 2017. She holds a BA (Hons) in Accounting and Finance from Edinburgh Napier University and an MSc in Finance and Investment from the University of Edinburgh. Ashley-Jane is a CFA charterholder.

MORE THAN
100

LISTED UK COMPANIES PRESENT

After two years' worth of virtual meetings with companies, I was really looking forward to being able to get back out on the road again and see businesses and their management teams in person. What better way to do this than to attend one of the larger UK business conferences in Hertfordshire, with over 100 listed UK companies present. We don't go to these types of conferences regularly as you miss the boots-on-the-ground experience of being at a company's HQ, walking the premises and seeing their sites first hand. However, these types of "speed dating" conferences allow you to meet numerous businesses in one place in a short space of time.

Not only was this a well-attended conference from a sector and industry perspective, ranging from software businesses to consumer discretionary and disruptive cybersecurity companies, but multiple C-suite executives were also present. Some companies were entirely UK-focused businesses, such as Biffa PLC (a waste management company), Pets at Home (a pet retailer and veterinary business) and Softcat (IT infrastructure reseller), while others were global leaders in their fields, including Fever-Tree (premium mixers and soft drinks) and Halma (safety products). Being out in the English countryside with limited access to nearby locations meant you had the opportunity to extend conversations over lunch, dinner and coffee.

Over the space of three days and after twelve meetings, five fireside chats and two lunch meetings, I came away with a good feeling of the general mood of corporate Britain. Being able to speak to businesses that wouldn't necessarily warrant building an entire trip around was another benefit of attending this type of conference. I was also able to hear from several upcoming disruptive businesses that are early on in their journey. One such company, Darktrace, a cyber security AI software business, has created a new artificial intelligence model for handling cyber security threats. This software can find an attack, intercept it, and stop it going any further by automatically re-writing firewall codes as it takes place. The autonomous AI deployment has only been in operation since 2015 as many customers were initially nervous about letting autonomous software into their systems, however, over 50% of customers now use it. The business is rapidly growing but only just breaking even and is having to invest significantly in headcount to keep up with demand. We will be keeping an eye on Darktrace as it develops and grows into a profitable business.

"Many businesses explained that they have had to manage inflation before although perhaps not to this extent nor right across the entire cost base."

"What was most interesting was that inflation concerns and questions were coming predominantly from the investor side, not from the companies themselves."

THREE COMMON THEMES

Discussion topics included how businesses are emerging from the pandemic, during which many management teams continued to invest, to how they are stepping up digital capabilities. The three most common themes that emerged were inflation (both on costs and people), supply chain pressures and putting data to better use.

What was most interesting was that inflation concerns and questions were coming predominantly from the investor side, not from the companies themselves. Many businesses explained that they have managed inflation before, although perhaps not to this extent, nor right across the entire cost base. One obvious lever to limit the impact of cost inflation is pricing, which Kingspan, a UK building materials supplier, has used since the start of the pandemic when shortages of building materials pushed up costs. For the majority of Kingspan's customers, product availability is more important than price, allowing the company to pass on all cost inflation, in some cases raising prices by 25% over the last year.

25%

THE RISE IN PRICE OF SOME KINGSPAN PRODUCTS OVER THE LAST YEAR

We like businesses that deliver a product or service that is critical to end customers, as this provides a degree of resilience when inflation occurs. Halma, for example, sells safety-related products that protect assets and people. Demand has remained resilient for its products during recent periods of inflation. The company shared how it has managed supply chain pressures through its unique decentralised subsidiary structure. Halma is made up of around 50 smaller businesses that each have their own supply chains, allowing greater flexibility and versatility in making decisions. In addition, the smaller companies benefit from being part of the wider group by being able to pool procurement for common components. Joining forces to source materials on a much larger scale, for example for semiconductors which are a key component for many of Halma's businesses, allows them to source greater volumes from suppliers, a particular strength when supply is disrupted.

RESILIENCE TO HEADWINDS

Hydrogen equipment designer Ceres Power reduces the impact of supply chain challenges through outsourcing. By outsourcing their production the company hasn't had to manage the complexity of sourcing components. They also outsource sales and marketing in return for licensing revenues. However, by outsourcing most of its activities other than R&D, the business has somewhat lost control of its destiny as it relies on third-party partners to produce and sell its products.

Competition for headcount has never been greater and many companies are struggling to hire enough people. Softcat, a software reseller, hires on average 400 people a year, the most in the industry, but typically only retains half of this because of the unique skill set needed for selling its software. Softcat's continued growth relies on hiring and retaining enough new employees year after year. Culture and remuneration are ways to manage this challenge. The former is extremely important, and the business actively encourages a fun, family culture so that employees feel valued and can envisage building a long-term career at the firm. Regarding pay, Softcat remunerates employees based on merit, whereby financial incentives are not only for new business wins but also for successfully retaining long-term customer relationships that create a recurring stream of revenues for the business.

7.3 *million*

ACTIVE PETS AT HOME VIP LOYALTY CARD USERS

"Competition for headcount has never been greater and many companies are struggling to hire enough people."

Putting data to better use can also help manage challenges such as employee retention. CVS Group, a veterinary practice operator, has started to use data from procedures to incentivise and show veterinary surgeons not only what the best option and outcome is for the animal but how that can positively impact practice financial metrics. Another company that has invested more into using its data is Pets at Home, a pet retailer and veterinary business. The company has one of the largest proprietary data sets on pets in the UK but admitted to not having used this enough. Steps have now been taken to create a more meaningful digital offering, including loyalty schemes, a digital app and subscription services. Pets at Home is taking this opportunity to engage more with customers and to convert those who are partially engaged (those who visit a retail store on average six times a year), to fully engaged consumers that use all the company's services, visit its stores frequently and spend multiple times that of a partially engaged consumer. Management believe that using data can be one of the biggest value drivers going forward.

When analysing companies, we look for strong business franchises and experienced management teams who can steer their businesses through challenging environments such as the one we are seeing today. Many of the companies I spoke to at the conference are high quality and have so far proven resilient to headwinds such as inflation, supply chain and labour challenges. While not all these companies will be potential candidates for our portfolios, I'm looking forward to subjecting some to further analysis and research.

SEE ALSO

Notes on a Small Island
Journal 1

ON THE ROAD

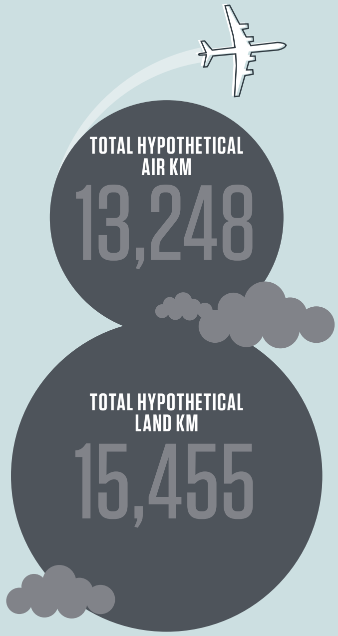
THE ENVIRONMENTAL **LEDGER**

1 conference in Hertfordshire vs 15 meetings across the UK.

APPROXIMATE DISTANCES MEASURED IN KM 'AS THE CROWS FLIES' FROM CHARLOTTE SQUARE, EDINBURGH

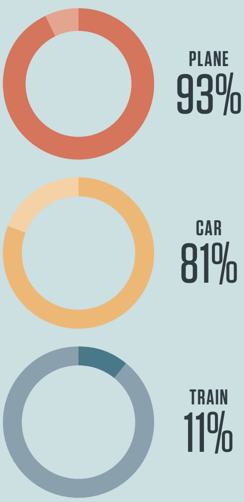
Figures rounded to whole numbers

	AIR	LAND
Ceres Power, Horsham	575	675
Softcat, Marlow	513	613
Biffa Cressex, High Wycombe	508	609
Fever-Tree, London	533	608
London Stock Exchange, London	534	603
Tritax Big Box, London	534	602
DS Smith, London	532	600
Hargreaves Lansdown, Bristol	502	593
Halma, Amersham	506	592
CVS Group, Diss	487	573
Darktrace, Cambridge	468	531
Kingspan Insulated Panels, Ireland	346	435
Pets at Home, Cheadle	296	355
Croda International, Goole	289	337
Craneware, Edinburgh	1	2



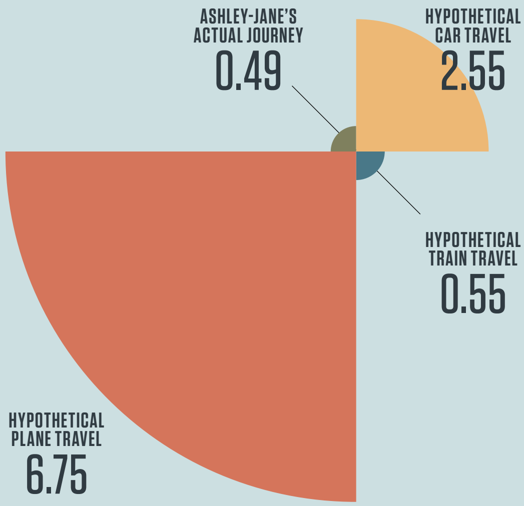
PERCENTAGE OF CO_2e SAVED

(Metric tons)

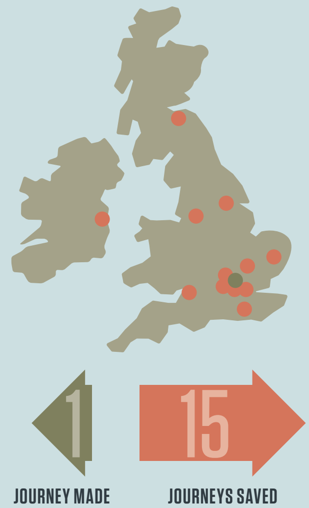


CARBON EMISSION FOOTPRINT

Actual versus hypothetical (metric tons of CO_2e)



JOURNEYS MADE VERSUS SAVED



Source: Calculations based on UK Government's "Greenhouse gas reporting: conversion factors 2021"
https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021

ON THE ROAD

POLAND'S RICH POTENTIAL

IT and entrepreneurial talent, as well as ambition, abound.

FRASER FOX
Investment Manager

Fraser is an investment manager at Walter Scott, who joined the firm in 2003. He has experience across each of the three regional research teams. Fraser holds a first class LLB (Hons) in Law from the University of Edinburgh and is a CFA charterholder.

The Covid-19 crisis took remote working to new extremes, revealing ways to communicate and collaborate. But when it comes to overseas research, there is still a lot be said for the face-to-face approach.

Walter Scott's Research team were reminded of this in November 2021 when they left for two trips to Poland to update their knowledge of the market. For Fraser Fox and Tom Miedema, it was a refreshing return to physical travel; for Michael Scott, it was the first opportunity to be on the road with colleagues. And for all three, it was a chance to immerse themselves in Poland's culture and get a sense of the potential of its companies.

A GLIMPSE BEHIND THE SCENES

The first of the two trips centred on learning more about one of Poland's fastest-growing supermarket chains. Investment Manager Fraser Fox and Investment Analyst Michael Scott set out to understand the drivers behind the business – walking the floors and meeting the people who make it tick.

TOM MIEDEMA
Investment Manager

Tom is an investment manager at Walter Scott, who joined the firm in 2007. Prior to this, he lived and worked in Taiwan, having previously worked at Baillie Gifford. He holds an MA in Business and Economics from Heriot-Watt University, Edinburgh and an MFin in International Finance from the University of Glasgow. Tom is a CFA charterholder.

It was an opportunity to touch base with a management team who rarely interact with investors because they prefer to focus on the day job – a pragmatic approach reaffirmed by Scott and Fox's impressions of the company. They found a culture that is laser-focused on the business model and lean, efficient operations.

Nothing could have underscored this better than what they saw when they passed the CFO's office as they left the building. He was working at his desk in the dark, lights switched off to save electricity. "All these little things taken together can paint a much fuller picture of a business than just sitting on Zoom talking to the management team," says Fox.

THREE STAND-OUT COMPANIES

The second trip took Michael Scott and Investment Manager Tom Miedema to Warsaw for a packed itinerary of meetings with nine companies in four days, as well as Wood & Company, a specialist Eastern European research provider, and Polityka Insight, a political and economic research company.

They were impressed to find a labour market rich in IT and entrepreneurial talent, which is reflected in businesses leading the e-commerce, software and gaming sectors. Three companies stood out: an automated parcel machine and logistics company, a customer service software developer, and a leading Polish e-commerce provider.

"There were a lot of question marks about the latter," says Miedema. Can it really compete with the e-commerce giants? "The trip was an opportunity to really dig into that issue and ask, 'Is this going to remain the long-term winner here? Or is the competition going to erode the business?'"

"The trip was an opportunity to really dig into that issue and ask, 'Is this going to remain the long-term winner here? Or is the competition going to erode the business?'"

Meetings with the company and others in the e-commerce value chain assured the team of its resilience, while conversations with local people proved its popularity. "Everyone we spoke to, their response was positive," says Scott. "And when we asked if they'd ever move to Amazon, their response was almost unanimously no.

"We were keen to meet the software developer face to face because it can be hard to understand what these types of companies do, how differentiated they might be and where they sit in the value chain. It is really valuable to be with someone who can walk you through the benefits of their program as if you were one of their customers. It gives you a practical understanding that you can't get over Zoom."

The potential of the logistics company the team met was plain to see even before they got to the meeting: it was clear from the proliferation of parcel lockers throughout the country. Even in rural areas, the machines are a common sight. "This is probably the best argument for being out in a country and researching a company," says Scott. "Seeing almost every street corner in Warsaw with a parcel machine and therefore understanding the benefits of density, the economies of scale that come with that network and the competitive advantage that the company appears to have."

MICHAEL SCOTT
Investment Analyst

Michael is an investment analyst who joined Walter Scott in 2016 and spent four years in the Dealing team. He joined the Research team in October 2020. Michael graduated with a BA (Hons) in Economics from the University of Exeter.

REAL LIFE HAS REAL BENEFITS

“There’s no better way to get a feel for how colleagues approach problems and think on their feet, and just generally feel about the world than to spend a concentrated amount of time together with all the unexpected challenges that throws up.”

These trips also served as a reminder of the other benefits that come from visiting a country or company in ‘real life’ rather than through an online connection.

While the schedules for these trips were deliberately packed full, some of the most valuable lessons happened in the moments between company meetings. “We found ourselves chatting with interpreters, taxi drivers, hotel staff – I ended up having a drink with a group of workers from a local assembly line,” says Fox. “You often stumble on some really valuable colour – whether that’s information about the local economy or how certain companies are perceived.”

And they enjoyed the chance to travel together. For a variety of reasons, research trips are planned in pairs, and the time spent with colleagues on the road has always been valued by the team. “There’s no better way to get a feel for how colleagues approach problems and think on their feet, and just generally feel about the world,” says Fox, “than to spend a concentrated amount of time together with all the unexpected challenges that throws up.”

CRISIS IN UKRAINE CASTS A SHADOW ON POLAND

The November trip was coloured by two political issues: the worrying rise in inflation and the Belarus border crisis. But by the time Fraser Fox returned to Poland for a long-planned holiday in March 2022, there was a much darker cloud hanging over the country as Russia waged war in neighbouring Ukraine.

Arriving in Krakow, Fox was struck by the changes. “The atmosphere in the city was tense,” he says. At the time, some 100,000 refugees had fled to Krakow and signs of the conflict were everywhere: the station thronged with new arrivals, Ukrainian flags hung from buildings and there were crowds in the square singing the Ukrainian anthem.

“Their Polish hosts are a true inspiration,” says Fox. “These people have long memories, strong cultural and linguistic ties with Ukraine, and genuine fears for what might come next.”

How the crisis in Ukraine will shape its neighbour’s ambitious companies remains to be seen.

SEE ALSO

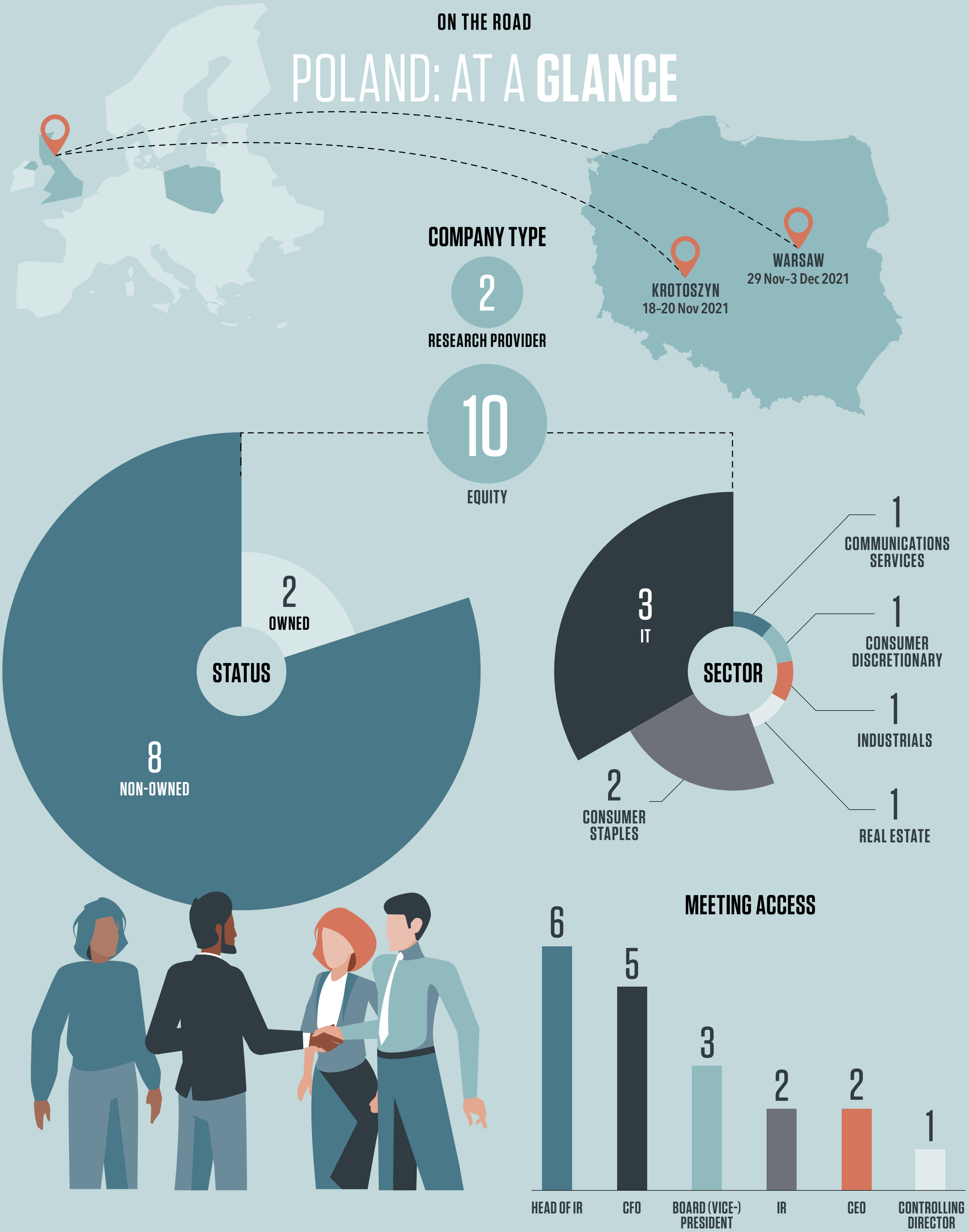
The Latin American Dream
Journal 10

Tech City
Journal 9

Back on the Road
Journal 5

ON THE ROAD

POLAND: AT A **GLANCE**



ON THE ROAD

A RESEARCH INVESTMENT FOR **LIFE**

Synthetic biology has opened up new avenues of medical treatment, as well as investment opportunities.

TOM MIEDEMA
Investment Manager

Tom is an investment manager at Walter Scott, who joined the firm in 2007. Prior to this, he lived and worked in Taiwan, having previously worked at Baillie Gifford. He holds an MA in Business and Economics from Heriot-Watt University, Edinburgh and an MFin in International Finance from the University of Glasgow. Tom is a CFA charterholder.

SASHA THOMPSON
Investment Analyst

Sasha is an investment analyst who joined Walter Scott in 2020, having interned at the firm in 2019. Prior to this, he completed internships in Senegal and Paris. Sasha holds a first class BA (Hons) in History and French from the University of Oxford.

How do the Research team approach new subjects? Why do they decide to pursue a particular idea? What are their sources? How do they make the most of the expertise of others in the team and collaborate? And how has 'hybrid' helped or hindered their work? These are questions that we are often asked. Investment Manager Tom Miedema and Investment Analyst Sasha Thompson have had to answer them all over the past 12 months as they investigate the pace of development and investment potential across synthetic biology.

"Our work around synthetic biology didn't start with the plan that this would be a major project, like the recent Carbon Project. This was much more organic," recounts Walter Scott Investment Manager Tom Miedema.

Tom's interest in synthetic biology began when Germany-based Sartorius Stedim Biotech came to his attention. It produces a range of bioprocessing equipment for use in producing cutting-edge drugs and therapies, and Miedema was intrigued by what he perceived to be a "phenomenal" business model.

"It has high-recurring, stable revenues and an incredibly sticky customer base – once you start using these tools, you are not going to switch," he explains. "That is something that is clearly very attractive from an investment perspective: this strong relationship with customers, where the company becomes a go-to supplier."

For Sasha, the announcement in November 2020 that two separate companies had developed novel technology to create vaccines with 95% effectiveness against Covid-19 proved to be the catalyst for further work.

"I began reading about mRNA-based vaccines and marvelled at the paradigm-shifting technology that it involved. Over two years later, these companies have now received an injection of billions of dollars to fund extensive and exciting pipelines," he says. "If you then consider the fact that you can effectively programme a cell to make whichever protein you wish, the imagination runs wild. More tangibly, synthetic biology has implications for many of our core holdings, including beyond the healthcare space."

$9.5 billion

ESTIMATED SIZE OF GLOBAL SYNTHETIC BIOLOGY MARKET IN 2021

$30.7 billion

ESTIMATED SIZE OF GLOBAL SYNTHETIC BIOLOGY MARKET IN 2026

Source: genengnews.com

LEARNING ON THE JOB

"The business model and customer relationships were what drew me in initially, but I don't come from a pharma background, so this was a new area for me."

For Tom, Sartorius was a catalyst to learn about new technology and an entirely new sector. "The business model and customer relationships were what drew me in initially, but I don't come from a pharma background, so this was a new area for me – and a steep learning curve," he says.

His research into Sartorius Stedim Biotech highlighted the growth of the contract development and manufacturing organisation (CDMO) segment. "These are specialist drugs manufacturers," he clarifies. "They don't design drugs, or do the science, but they buy equipment from the likes of Sartorius and German science-tech multinational Merck KGaA.

"I immediately saw parallels with the semiconductor industry – where foundries like TSMC provide outsourced manufacturing services," says Miedema. "In pharma, outsourcing is at an earlier stage, but there is an accelerating trend towards using CDMOs, especially for companies that do not have that manufacturing infrastructure. Lots of innovative biotechs have focused purely on the science and partnered with CDMO players for all their manufacturing requirements – through research, development and commercialisation.

"I wanted to get deeply involved at an early stage," he adds. "We have done extensive research around semiconductors over many years and made a number of successful investments, but we could have probably done even more and I did not want to miss that opportunity with synthetic biology. We needed to follow a steep curve of acquiring knowledge before we make any investments."

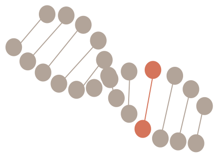
SCIENCE GETS INTERESTING AGAIN

To get up the curve, Tom and Sasha immersed themselves in the world of synthetic biology, ploughing through textbooks and business reports, as well as speaking to analysts and listening to specialist podcasts and audiobooks.

“You get whole podcast series dedicated to bioprocessing and synthetic biology, which I found fascinating,” Tom enthuses. “I did not pay enough attention in science classes at school, but now it is suddenly far more interesting, getting up-to-speed on biology and biotechnology so that we can get a better grasp of the subject matter. As soon as you get into the weeds, you realise how complicated this is, and that you need to really understand what we are investing in – rather than just the market trends.”

Company meetings and industry conferences are also an important part of Walter Scott’s research process. In addition to conversations with companies across the spectrum of research, development, support, equipment and manufacture, in March, Tom and Sasha travelled to Barcelona to attend Cambridge Health Tech Institute’s Bioprocessing Summit with an exhibition area of the latest technology and equipment alongside seminars and breakout discussions.

“One of the interesting things about attending an industry conference is that it is not a finance crowd – we did not meet anyone else from a finance background,” says Tom. “It forces you to think about the businesses from different perspectives and in terms of where the industry is going and the challenges it is looking to solve. It leads to so many different areas.”



“Much of the underlying science was not particularly novel, based on principles of biology discovered many years ago,” observed Sasha. “But there was a sense of acceleration in the underlying market – especially with Covid-19 and the related boost to biotech funding. I started thinking about how we could tap into that trend. This led to the creation of an extended research trip to the US.”

“One of the interesting things about attending an industry conference is that it is not a finance crowd – we did not meet anyone else from a finance background.”

GETTING TO KNOW THE RIGHT PEOPLE

Thompson decided he needed to target Boston in the US, because it is an international healthcare hub where academic institutions, industry-leading biopharma, world-renowned medical institutions, and financial capital all converge.

“I planned a five-week cross-continental trip, beginning in Boston and ending in Seattle, to meet with the likes of Moderna, Danaher Corp and Agilent,” he says. “Along the way, I was joined by other members of the Research team and our Investment Director Charlie Macquaker. I began the trip by attending the World Medical Innovation Forum, which focused on another emerging field of synthetic biology, cell and gene therapy. The more complicated an industry becomes, the more you need to understand it. Is there a risk? Who are the stakeholders? How might the technology evolve? What is the regulatory landscape?”

“Among many other company meetings, the trip allowed me to meet with the management teams of companies at the forefront of making synthetic biology a reality. This not only included meetings with well-established players such as Illumina and Danaher Corp, but also those at the vanguard of finding novel ways to manufacture and synthesise key inputs in synthetic biology. It was fascinating to tour the laboratories of the likes of Ginkgo Bioworks and Twist Bioscience.”

For Miedema and Thompson, the next step is to continuously deepen their understanding of the secular trend – to meet more companies, attend more conferences, and find out about developments in mRNA and cell and gene therapy.

“The beauty is that this is both fascinating and something that is going to change the world – and we have licence to explore it as deeply as we want and to become experts,” says Miedema. “This is not a project that has a defined end point. It will get bigger and bigger. We can build expertise in an area that will be highly relevant, and all that research will, we hope, prove to be time well spent in terms of making better investment decisions.”

“The beauty is that this is both fascinating and something that is going to change the world – and we have licence to explore it as deeply as we want and to become experts.”

SEE ALSO

Healthcare’s New Order
Journal 12

ON THE ROAD

A RESEARCH JOURNEY

TOM'S PATH

A meeting with Sartorius, a leading biopharma company, sparked my interest in this field. The potential to meet profound human needs was clear, but there was also a degree of familiarity. The company's approaches were familiar to me from research undertaken on Industry 4.0. I realised that similar methods were being applied to unlock the potential of synthetic biology.

SASHA'S PATH

My interest was inspired by the release of data in 2020 by Moderna and Pfizer/BioNTech showing that their mRNA technology could deliver a vaccine against Covid-19. This encouraged me to explore further the recent advances in biology, which in turn led me into the history of medicine from small molecules to the advanced therapies we see today.

SHARED RESEARCH

7 (AUDIO-) BOOKS (Tom)

Gene Machine, Ramakrishnan
Gut, Enders
Immune, Dettmer
The Tangled Tree, Quammen

Shared:
The Epigenetics Revolution, Carey
The Gene, Mukherjee
The Genesis Machine, Webb & Hessel

3 (AUDIO-) BOOKS (Sasha)

16+ COMPANY MEETINGS (Tom)

21st Bio
BioNTech +
Christian Hansen +
Genmab
GenScript
Merck KGaA +
Novozymes
Samsung Biologics
Sartorius Stedim Biotech +
Siegfried
WuXi Biologics +
Zai Lab

Shared:
Catalent +
Maravai +
Moderna +
Twist Bioscience +

12+ COMPANY MEETINGS (Sasha)

Agilent
Amgen
Bruker
Danaher Corp
J&J
Ginkgo Bioworks
Illumina
Novartis

3 CONFERENCES & FORUMS (Tom)

Future Summits

Shared:
Bioprocessing Summit Europe
Moderna R&D and Vaccine Day

3 CONFERENCES & FORUMS (Sasha)

World Medical Innovation Forum 2022

9+ PODCASTS (Tom)

Shared:
Aquired series
Bio Eats World series
BioNTech, Şahin & Türeci
Business Breakdowns series
Dr Kariko
Ginkgo Bioworks, Dr. Kelly
Moderna, Bancel
TED Talks series
Twist Bioscience, Leprous

9+ PODCASTS (Sasha)

2 VIRTUAL TRIPS (Tom)

CureVac
Evotec

1 WEBINAR (Tom)

Bioproduction Supply & Demand

2 WEBINARS (Sasha)

Maravai LifeSciences R&D Day
Understanding the Transformative Potential of Synthetic Biology

+ indicates where more than one event took place.

ON THE ROAD

UNIQUE **INSIGHTS**

Research trips are an integral part of our bottom-up approach. To give you a real impression of what that means, our Research team has risen to the challenge of capturing their travels on film. We hope this gives you a strong sense of what we mean by in-depth research.

2019 VIETNAM & BANGLADESH SUPPLY CHAIN RESEARCH TRIP

In late 2019 Investment Manager – Co-Head of Research Alan Lander and Investment Manager Des Armstrong travelled to Vietnam and Bangladesh to examine standards and practices in factories contracted by global brands and retailers to manufacture apparel and footwear. In order to assess standards, evident failings, opportunities and hurdles, the itinerary included meetings with factory owners, trade unions, industry organisations and NGOs.

SCAN TO WATCH

2022 FUTURE SUMMITS, ANTWERP, BELGIUM

Investment managers Tom Miedema and Alistair Ceurvorst travelled to Belgium to attend one of the technology sector's major conferences. They came back reassured by some of the trends that are continuing to create great growth opportunities for many leading technology companies.

SCAN TO WATCH

2022 GLOBAL FASHION SUMMIT, COPENHAGEN, DENMARK

Investment Manager – Co-Head of Research Alan Lander attended the Global Fashion Summit in Copenhagen, a two-day forum for the discussion of the global apparel industry's most pressing sustainability challenges. Bringing together clothing brands, supply chain operators, NGOs, charities and a host of other stakeholders, the event was an opportunity to increase our understanding of fashion's sustainability landscape and how its evolution might not only impact the companies in which we invest today but how it could also shape the opportunities of tomorrow.

SCAN TO WATCH

BUSINESS IN PERSPECTIVE

BUSINESS IN PERSPECTIVE

THE POLITICS OF **BUSINESS**

Social pressures and geopolitical tensions mean that businesses can no longer afford to sit on the fence when it comes to voicing political opinion.

Business is no longer just business. Seismic political and social events are forcing organisations to be political institutions, as well as economic ones. We spoke to **Chris Pinney**, President and CEO of High Meadows Institute, to find out how leaders are operating in this new reality.

Why are we seeing such a change in the role of business in society?

We are in the middle of the renegotiation of our social contract and it is a confusing time for everybody. There is new music playing and nobody knows how to dance to it. This is what we are trying to work out.

I am old enough to have grown up knowing that the business of business was business, and the business of society was government. Now, we are in this sort of miasma where it is unclear. But, we do know that the business of society is also now the business of business, whether it cares to be or not – and particularly for large, global corporations.

"There is new music playing and nobody knows how to dance to it. This is what we are trying to work out."

More than half of the world's top 100 economies are now businesses. They have power, influence and impact that are much greater than those of many countries. It is not surprising, then, that we are seeing the public turn to business for leadership and responsibility.

MORE THAN
50%

MORE THAN HALF OF THE WORLD'S TOP 100 ECONOMIES ARE NOW BUSINESSES

How has that responsibility changed?

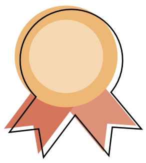
I have been on a journey from philanthropy to sustainability and everything in between. My observation from all those perspectives is that companies go through three stages.

The first is social responsibility. It is a nice-to-do: we are responsible citizens and we are operating our business legally. The next stage is usually brought on by some sort of crisis. It is about how we actually manage our business: what we do within our fence line, our supply chain and the kind of products and services we take to market. And we need to pay more attention to this. The third stage is realising that we are now also responsible for the operating environment. Beyond our fence line, there are systemic social issues germane to most of our business that we now have to engage with. We need to get involved in these global issues and initiatives, such as climate change, and this is particularly true for large international firms.

What does this last stage mean for how businesses engage with society?

Businesses need to negotiate their licences to operate with a group of stakeholders and manage a whole set of extra-legal voluntary codes and standards, which are changing all the time. So it is an incredibly turbulent environment.

"We need to get involved in these global issues and initiatives, such as climate change, and this is particularly true for large international firms."



The most powerful influence supporting this agenda is investors. The standards for corporate responsibility are no longer being set by government – although they may be again eventually – but right now, they are being set by private initiatives. One of the most prominent of these is the International Sustainability Standards Board of the International Financial Reporting Standards Council. And there is an enormous cluster of NGO initiatives also setting standards for business.

On the policy side, particularly in the EU and now in the US with the SEC initiative, policymakers are drawing up financial disclosures or disclosures on corporate responsibility impacts. But they are drawing on the experience of the private initiatives to create transparency standards.

What does this mean for the leadership of a business?

Our research has identified four dimensions. First is obviously more leadership – so speaking out on social issues and taking a position. As we have seen on diversity issues, Black Lives Matter and voting rights in Georgia, this has been more of an American phenomenon so far than a European one, but it is starting to emerge everywhere.

The second dimension is self-regulation. You cannot wait for government to set the rules: you have to be more proactive and set the rules yourselves, working with your peers and others. This is happening in two ways. One is at the business-association level, so you see, for example, the Responsible Business Alliance in the electronics industry, Responsible Care in the chemical industry and the Forest Stewardship Council. And there are many other NGO and multi-stakeholder coalitions that business now needs to engage with to really understand the rules of the game.

The third dimension is partnering with government to address systemic social challenges. A good example here is IBM and the P-TECH model[1]. A lack of job opportunities is a huge problem in inner city schools, particularly for underserved young people. So IBM, working with teachers' unions and local authorities, set up a grades 9–14 high school in New York City. There is an enormous gap between high school and community college and a lot of young people never make that leap, and this is where the P-TECH model aims to help. This is a good example of the company bringing its expertise: IBM carries out mentoring and mobilises colleagues to help address an issue instead of simply saying, "We are going to give some money to it".

"The role of the board is being rethought – especially in terms of the competencies you need."

The fourth dimension is business-model transformation. The CEO of Walmart gave a powerful speech about why the company needs to transform to being a regenerative economy company[2]. Walmart does not know how it is going to get there, but it has made a commitment that it will.

Countless companies are committing themselves to net zero but to do so means there is going to have to be an enormous change in the way businesses actually run if they are going to move to a regenerative model.

How can the board help leaders deal with these four dimensions?

The role of the board is being rethought – especially in terms of the competencies you need. My argument is that large firms are essentially social and political institutions, whether they choose to be or not. They have the same problems that governments have and they need to have a political strategy.

You need competence at the board level to navigate that environment and decide which issues are most material and might have the biggest impact on the business, as well as where the business itself can make the most impact. Then you need to focus your attention instead of simply responding to everything that comes down the track – because you cannot win. You need a lot more peripheral vision, especially if governments are not setting the rules for you. You must have your own capacity to understand what is going on in the operating environment.

What can business leaders use to guide their decision-making?

As a business leader, you have your obligation as an individual and a citizen to have a moral perspective but you also have a moral obligation to the health of the firm you are leading.

So with any particular issue, you have to go through a process of making sure you fully understand the implications of the issue you want to speak on. You also need to understand your internal and external stakeholders and how they view these issues. And if you are going to speak out, is it going to help or will it just create more division?

Another thing to consider is that if you really feel strongly about an issue, then work with others – speak up with your peers. We are seeing a lot more of this sort of coalition activity precisely because speaking out on your own can put the company at political risk.

73%

IN 73% OF CASES, CEOS SPEAKING OUT HAS LED TO INCREASED EMPLOYEE PRODUCTIVITY AND INCREASED PROFITABILITY

In the current environment, the number one consideration for CEOs is where their employees are on these issues. They might be pushed by external stakeholders and advocacy groups, but employees and investors are critical. If you look at the changes to the board at Exxon[3] last year. Those changes reflected its need to add perspective and expertise around climate change. That was all driven by activist investors. You have to respond.

The research we have done shows that in 73% of cases, CEOs speaking out has led to increased employee productivity and increased profitability.

How is this issue likely to play out over the coming years?

"Business has to understand that it is in its collective interest to work hard to defend the institutions of democracy and keep the democratic system moving."

We are going to see more transparency. There are a number of organisations working on standards for reporting on political engagement where businesses can talk about exactly what they are doing, where the money is going and why, and how it impacts the company and its stakeholders. We are going to see a lot more of that. Ford, for instance, published a political engagement report in 2020.

I think the real challenge for business, which came out in a democracy round table we ran recently, is that democracy is going to be as much of a fundamental issue for global businesses as climate change is. If we do not defend democracy, we are going to end up with a lot more authoritarian regimes, issues such as climate change are going to become increasingly difficult and we are going to go backwards.

We are in a see-saw moment. I cannot tell you what is going to happen, but I think business has to understand that it is in its collective interest to work hard to defend the institutions of democracy and keep the democratic system moving.

High Meadows Institute is a Boston-based think tank and policy institute focused on the role of business leadership in creating a sustainable society.

[1]https://www.ibm.org/initiatives/p-tech
[2]https://corporate.walmart.com/newsroom/2020/09/21/walmarts-regenerative-approach-going-beyond-sustainability
[3]https://www.reuters.com/business/sustainable-business/shareholder-activism-reaches-milestone-exxon-board-vote-nears-end-2021-05-26/

SEE ALSO

The New E in ESG
Journal 11

Of Culture & Cultivation
Journal 11

BUSINESS IN PERSPECTIVE

MATERIAL RISKS

It is important for us as investment managers to consider how we deal with political issues that might exert material pressure or represent notable risk to any business. Indeed, before we invest in any company, we must be convinced that any management team has the skills to contend with the myriad of external factors that face any global company. We must also be assured of a commitment to the highest standards in addressing those challenges. We look for industry leaders, and that leadership must be broad reaching.

While the actions of global corporations and the words of business executives might echo more loudly and widely than before thanks in a large part to social media, companies have long had to navigate geopolitical issues and changing social standards. Likewise, meeting the changing expectations of customers and consumers is a constant challenge that the best companies have proved able to successfully meet over time.

“Knee-jerk reactions might meet an immediate call for action but there is always merit in reflection.”

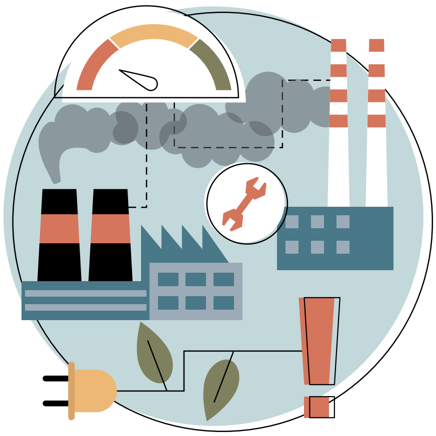
But that is not to say that navigating geopolitical issues or divides is straightforward or that the challenge is not getting harder. Indeed, companies – even the best-run companies – will not always get it right, particularly over the short term. Nor will there be a single solution. In recent months, for example, we have seen companies take a range of steps in regard to operations in Russia and Ukraine. We have no preferred path nor a firm-wide view, instead, in keeping with our investment approach, we consider the choices being made by individual companies. We need to understand the rationale for those choices and also be assured that decisions are being made with due care and consideration for the long term. Knee-jerk reactions might meet an immediate call for action but there is always merit in reflection. Companies must consider all stakeholders, but those disparate groups will often have conflicting expectations and hopes. For any company, through our research and our engagement, we must all be convinced that its management team have the skill and clarity of direction to act appropriately in meeting these frequently conflicting demands in what can be the most complex of situations.

ALAN EDINGTON
Investment Manager – Responsible Investment

Alan is Investment Manager, Responsible Investment and a member of the Investment Management Committee at Walter Scott. Prior to joining the firm in 2012, he worked at ManoCap, a private equity firm based in Sierra Leone, and as a lawyer at Slaughter and May. Before university, Alan undertook an extended internship at Walter Scott. He holds a BA (Hons) in Law from the University of Oxford. Alan is a CFA charterholder.

BUSINESS IN PERSPECTIVE

CHAIN REACTION



*Geopolitical turmoil and under-supply are damaging the energy transition. **Rob West** of research consultancy, Thunder Said Energy tells us how things could pan out.*

"It provokes the desire, but it takes away the performance." That is the porter's view of alcohol in Act II Scene III of Macbeth. It is also our view of 2022's impact on the energy transition. Our own Macbethian descent into madness began last year, when we started writing about risks of energy shortages and re-inflation in supply chains that are critical for the energy transition.

There have always been circular reference risks. Producing the steel for wind turbines emits two tons of CO_2 per ton of steel, rising to four tons per ton for the copper in renewables and electric vehicles (EVs), 10 tons per ton for the aluminium in electrical transmission lines and 50 tons per ton for the lithium in batteries, and reaching a peak of 140 tons per ton for the photovoltaic silicon in solar panels.

2 *tons*

THE STEEL PRODUCED FOR WIND TURBINES EMITS TWO TONS OF CO_2 PER TON OF STEEL

So if it costs $100/ton to decarbonise aluminium, then everything else being equal the price of aluminium is going to rise by $1,000/ton – about +50% on 2019's price. And if a decarbonisation technology uses aluminium, its cost is also going to rise. And then it is going to cost more than $100/ton to decarbonise aluminium. Round we go, in an inflationary spiral.

30%

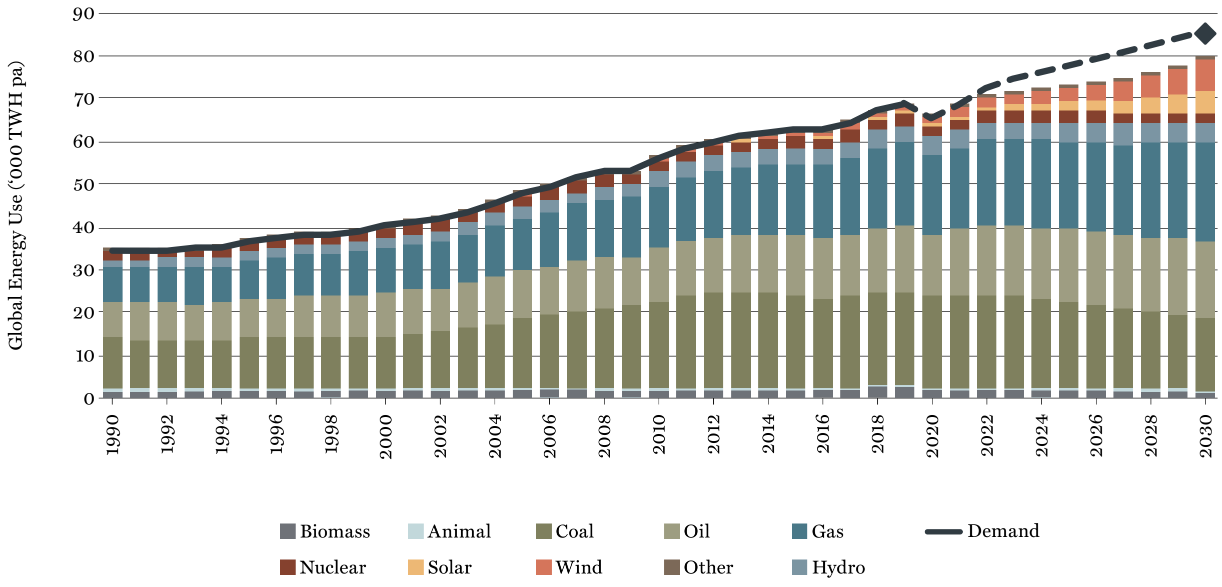
OF THE WORLD'S PRIMARY ENERGY STILL COMES FROM COAL

SUPPLY PAINS

Energy shortages have been looming too. We estimate that there has been $500 billion of cumulative under-investment in global primary energy production since 2015, when the baseline was about $1 trillion per annum.

Thirty per cent of the world's primary energy still comes from coal, although some Western coal companies feel as though they have been locked out of the world financial system by the divestment movement, and a 25% output decline is 'hoped for' by 2030. Another 30% still comes from oil, which is also discouraged: Western companies are asked not to build assets that are likely to become stranded but to return capital to shareholders instead, so we expect supply to flatline at 103Mbpd in the 2020s. And 25% comes from natural gas, yet new LNG projects have also seen a pullback, so supply growth is set to slow from +25MTpa each year in the past five years to +10MTpa each year in the next five years.

"As a rule of thumb, whatever the commodity, you can assume Russia produces about 10% of the world's supply."



Source: Thunder Said Energy

The upshot? Even if wind and solar additions could quintuple by 2030, our global supply-demand balances for energy were already starting to look alarming by late 2021: 2% under-supply of global energy in 2022, deepening to 10% in 2026 and remaining at 10% under-supply by 2030.

And then Russia invaded Ukraine, which is giving us an early glimpse of what 10% under-supply in global energy markets looks like. As a rule of thumb, whatever the commodity, you can assume Russia produces about 10% of the world's supply. And we would prefer not to buy commodities from warmongers.

"In the developed world, energy will absorb 11% of the average income of the average household, up from 5% in 2019."

SEVEN POTENTIAL EFFECTS OF UNDER-SUPPLY

1. DIRE CONSEQUENCES FOR DEVELOPING COUNTRIES

Today's energy under-supply could create a humanitarian crisis. At current pricing, primary energy will absorb 13% of global GDP this year – the highest level on record – versus a global average of 4% going back to 1900.

2-4 years

THE ENERGY PAYBACK ON PRODUCING SOLAR AND EVS

In the developed world, energy will absorb 11% of the average income of the average household, up from 5% in 2019. But in the developing world, home to four billion people, energy consumption is 90% lower than per capita levels in the West. These countries could be priced out of the world. Consider fertilisers. In normal times, two-thirds of fertiliser costs are energy costs, pulling nitrogen out of the sky via the Haber-Bosch process. If energy prices treble, then fertiliser prices double. If you can no longer afford to purchase fertiliser, then crop yields will fall proportionally. The consequences are cruel.

Energy shortages also make it harder to do many of the things we want to do in the energy transition. PV silicon, lithium, aluminium and copper production emit CO_2 because their production is energy intensive, so it is harder to make them in a world that is short of energy. On a 20-year view, solar and EVs are crucial, but the energy payback on producing them runs at 2–4 years. The faster we accelerate these technologies, the shorter we will be of energy in 'crunch years' such as 2022 and 2023.

Moreover, technologies such as carbon capture, grid scale energy storage and hydrogen all have inherent efficient losses stemming from immutable laws of thermodynamics. Their useful energy losses can range from 15–70%, which means that if you put 100MWH of useful energy into one of these energy storage technologies, you will only recover 15–70 MWH of useful energy back out on the other side. Again, it is harder to justify deploying these technologies if they are going to deepen near-term energy shortages.

9 years

TO BUILD A NEW NUCLEAR POWER PLANT

2. A WINTER OF DISCONTENT

How can we cure near-term energy shortages? Unfortunately, there are few good options. If you have a fully designed project ready to begin construction, it still takes two years to build a new utility-scale solar project, four years for wind or big oil projects, five years for a new LNG plant and nine years for a nuclear project. None of this will help energy shortages in the meantime.

"If you are going to get punched by energy shortages, then the best you can do is decide where you will be punched."

There may be some opportunities at the margin. We could restart about half of Japan's 45GW of idle nuclear plants, which could substitute about 20% of Russia's gas exports to Europe. Or we could restart idle coal mines in the West, which at current pricing will print more money in 2022 alone than we previously expected over the entire next 20 years. Some of these windfall profits could, of course, be reallocated by ESG investors for humanitarian support in Ukraine, food security or to support high-quality nature-based CO_2 removal projects.

But the only near-term cure for supply shortages, if you cannot increase supply, is to reduce demand – proactively. If you are going to get punched by energy shortages, then the best you can do is decide where you will be punched.

Policymakers may find they prefer not to have their voters freezing, unable to afford heating bills in winter 2022. They might prefer to reduce national speed limits to 50mph, shut down a metal works or even enforce energy rationing. It will be 2022's equivalent of 2020's lockdowns: politically unpopular, but necessary. And like the Covid-19 crisis, the after-effects will change everything.

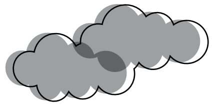
3. ENERGY PRAGMATISM

Our main observation from three years focused on the energy transition is that the fantasy of the perfect has often derailed the implementation of the good.

60%

BURNING GAS IS 60% LOWER CARBON THAN BURNING COAL, PER UNIT OF GENERATED ENERGY

Natural gas is an interesting example. Fifty-four per cent of the energy in methane comes from its hydrogen atoms oxidising into innocuous water vapor. So burning gas is 60% lower carbon than burning coal, per unit of generated energy. The carbon accounting is that each 1MTpa of LNG will avoid 5MTpa of net CO_2 that would have occurred if the alternative were to burn coal; and 10MTpa of net CO_2 that would have occurred if the alternative were to burn waste wood from deforestation, which remains the single largest emissions source on the planet at 6.5GTpa. But natural gas has found itself stranded in no man's land in many energy policy frameworks because it is still considered to be a fossil fuel.



"Natural gas has found itself stranded in no man's land in many energy policy frameworks because it is still considered to be a fossil fuel."

The US exported 70MTpa of LNG in 2021. Our base case is that it should export 170MTpa by 2030, but with a full reprioritisation of US LNG, it could send 370MTpa to US partners in Europe. For context, Russia's gas exports to Europe are about 100MTpa-equivalent. It is fascinating to consider which sources are going to move from 'discouraged' to 'favoured' as a 60% lower-carbon solution starts to look better than no solution.

4. INVESTORS SEEK OUT BOTTLENECKS

We want to accelerate wind, solar and EVs. But there is only so much glass fibre available for wind turbine blades, PV silicon capacity for solar, lithium, cobalt, nickel, graphite for batteries and power electronics equipment for all three.

Some of our market balances for different materials in the energy transition are 30–50% under-supplied. These commodities are like the mythical material 'unobtainium': the only way to obtain them is to outbid someone else. All of which makes it a rewarding time to produce unobtainium and finance more unobtainium projects. Unobtainium is a metaphor, of course, but many investors will find it in the real world by delving into the details of obscure supply chains.

5. RESHORING IN THE US

What is remarkable about most of these supply chains is that they are dominated by China, with over 90% market share. We have seen supply chain disruptions already, but imagine the impacts of having to sanction China as well – because, for instance, it decides to invade Taiwan.

"Europe needs to shed energy-intensive industrial activity – perhaps for half a decade."

A growing drive for more self-reliance is likely to lead to the reshoring of some of the supply chains that are crucial to energy transition, and the US could see the greatest industrial boom since the Second World War. Europe needs to shed energy-intensive industrial activity – perhaps for half a decade – but the West may not want to leak this demand entirely. So it may reappear around energy-rich hubs in Texas and Pennsylvania. And in Appalachia, doubling the gas output from 35bcfd to 70bcfd is a trivial matter of adding about 40 rigs. For context, Europe's entire gas market is about 45bcfd.

6. EFFICIENCY TECHNOLOGIES GAIN THE SPOTLIGHT

Next, there are the efficiency technologies that can help to improve efficiency in the global energy system. Many of these technologies pay for themselves via energy savings, and if they made sense at $7/mcf global gas prices and 10c/kWh power prices, then they make 3x more sense at $20/mcf global gas prices and 30c/kWh power prices.

60-90%

OF THE WORLD'S HOUSING STOCK IS 30–70% UNDER-INSULATED

For example, 60–90% of the world's housing stock is 30–70% under-insulated, so insulation upgrades could treble in pace. Ten per cent of the world's electricity could be saved using a power-electronics technology called a 'variable frequency drive' across the world's 50 billion electric motors – especially in industry. Steel and cement account for 10% of the world's CO_2 emissions, but there are sustainable timber alternatives that are carbon negative because they lock CO_2 away for centuries. While a traditional gas turbine achieves 40–50% thermal efficiency, the best combined heat and power turbines achieve 80–90% by harnessing the waste heat for other nearby processes.

7. ESG INVESTING CHANGES TACK

Finally, ESG investing is likely to be turned on its head. We recently evaluated the holdings of 20 ETFs, which hold $150 billion of assets while marketing themselves as socially responsible or ESG focused. In many cases, 'socially responsible' translated into being underweight in a few of the sectors that are considered to be sinful – one of which is supplying the world's energy needs.

While the MSCI ACWI is 4.5% energy, 4% utilities and 4–5% materials, these ESG funds were holding, on average, only 1.2%, 1.3% and 3.4% respectively. On the other side, of the 'top ten' holdings in these ETFs, the average ETF had six in common with the top ten holdings of MSCI ACWI.

Is this 'socially responsible'? Our long-held belief is that achieving the energy transition is not about pulling out capital and walking away. The real opportunity is putting capital in, to build a functioning energy system with no net CO_2.

A GUIDE TO ABBREVIATIONS/TERMS USED

bcfd	Billion cubic feet per day
GW	Gigawatt
kWh	Kilowatt hour
Mbpd	Million barrels per day
mcf	Volume of 1,000 cubic feet
MTpa	Million tonnes per annum
MWH	Megawatt hour

Rob West founded Thunder Said Energy in 2019 with the aim "to bring a Wall Street researcher's economic mindset to the energy transition, finding opportunities that can improve the world's energy system". The team at Walter Scott met Rob through his previous role as a sell-side analyst on energy and commodity markets, and has since subscribed to the research published by Thunder Said Energy. Rob has also presented to the research team on several occasions, sharing his views on the energy transition to both inform the team and challenge their own thinking.

Rob did not accept a fee for this contribution to the Walter Scott Journal and instead asked that a charitable donation be made in support of Ukraine.

All numbers quoted in this report are from Thunder Said Energy's models, data files and patent analysis, and are available at: www.thundersaidenergy.com

SEE ALSO

Net Zero or Ground Zero
Journal 11

Fossil Fuel Challenge
Journal 9

BUSINESS IN PERSPECTIVE

"REALISM AND PRAGMATISM"

In all that is said and written about energy transition, the point that often seems lost is its complexity and challenge. There are unintended consequences and difficult trade-offs. Short-term needs must be addressed alongside long-term ambitions. Unfortunately, that required pragmatism is often lost in what has become such a polarised debate.

Our approach – reassessed, challenged and better defined as part of the Research team's collective Carbon Project that was undertaken from 2019 to 2021 – has pragmatism at its centre. We must avoid big risks while also acknowledging that good can be better than perfect. Take the oil majors. We do not believe that they should all be removed from the investment opportunity set simply because of their environmental impact today. But we should not accept without question the impossible-to-judge targets and unquantifiable bold statements of intent that are now commonplace.

"We must avoid big risks while also acknowledging that good can be better than perfect."

ALAN LANDER
Investment Manager – Co-Head of Research

Alan is Investment Manager, Co-Head of Research and a member of the Investment Management Committee at Walter Scott. He joined the firm in 2006 and holds a BSc (Hons) in Mathematics from the University of Nottingham and an MSc in Financial Mathematics awarded jointly by the University of Edinburgh and Heriot-Watt University, Edinburgh. Alan is a CFA charterholder.

The immediate solutions to our looming energy crisis suggested by Rob West make for uncomfortable reading. And even with such radical action, in the short to medium term we know the world will still need fossil fuels. In that context, we think it is right to continue to consider the investment potential in 'traditional' oil companies while narrowing that opportunity set to the ones that are operating with as little negative impact as possible, and are investing positively for the future.

TotalEnergies, for instance, the fifth-largest quoted integrated oil and gas company, has proven hydrocarbon reserves equivalent to more than 13 years of production at the current rate. Within this, the company has also developed a leading position in gas – and LNG in particular – and has invested significantly in line with its ambition to become one of the largest renewables operators in the world by 2025.

13 years

HYDROCARBON RESERVES AT TOTALENERGIES' CURRENT RATE OF PRODUCTION

In the broader energy sector, Hong Kong-based electricity utility CLP is another example of a company pragmatically navigating a path between its historic roots and investment in grid infrastructure and transition-enabling technologies to deliver on its decarbonisation targets. Yet with coal plants within its stable of assets, CLP will be automatically excluded by many investors.

However, with a credible closure programme under way, alongside investment in technology to allow lower-carbon generation across remaining plants, CLP has taken action. Coal assets cannot be ignored or excused, but should investors also consider the investments being made as CLP moves from a 'traditional' electricity utility to one that uses new wind and solar technologies and maximises evolving energy-storage solutions, providing stability in its electricity grids while meeting its decarbonisation targets?

"The energy transition is not up for debate or negotiation, but achieving that goal demands realism and pragmatism."

There are no simple answers. The energy transition is not up for debate or negotiation, but achieving that goal demands realism and pragmatism. Walter Scott's investment approach and research framework is built to ensure that we maintain a long-term focus while considering companies in the round. We research, analyse and debate the factors that might affect a company's long-term prospects, immediate risks and opportunities, as well as second and third order impacts. Perhaps nowhere is that approach needed more than in energy investment.

BUSINESS IN PERSPECTIVE

A LONG-TERM WELCOME

Russia's invasion of Ukraine has created one of the largest refugee populations in the world. How can the private sector take meaningful action to support refugees?

6.6 *million refugees*

Russia's invasion of Ukraine has created one of the largest refugee populations in the world. With 6.6 million Ukrainians fleeing the country and a further 7.7 million displaced internally, Europe is now facing its worst human displacement crisis since the Second World War. We spoke to **Shelly Culbertson**, an expert on refugees and Associate Director of the Disaster Management and Resilience Program at the nonprofit RAND Corporation, to assess the response so far.

"Europe is now facing its worst human displacement crisis since the Second World War."

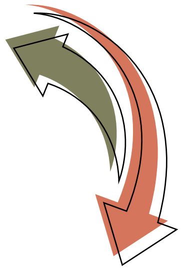
How does Europe's response to this crisis compare with its response to the refugee crisis of 2015?

There are several differences.

The first is policy response. From 2009 to 2017 some 3.4 million[1] irregular migrants (in other words, people without confirmed asylum status or an

economic visa) entered European countries, with numbers peaking in 2015. They came from many countries, including Syria. European countries could not agree on a common asylum policy, and fractured approaches gave the impression that European institutions were not able to respond to the crisis in an effective, unified way. At the same time, European countries offered asylum to many of them based on individual country approaches, with Germany taking a leading role. The governments of Europe then took steps[2] to reduce irregular migration flows, including strengthening borders and providing assistance to countries along migration routes.

"Most European countries are offering up to three years' temporary protection status, which means that once Ukrainians enter the Schengen Area they have the right to move around freely."



Now, most European countries are offering up to three years' temporary protection status, which means that once Ukrainians enter the Schengen Area they have the right to move around freely, get jobs and access public health and education.

The second difference is the tone of societal discussion and how that has affected the institutional responses mentioned here. In 2015, there were bitter debates about the nature of Europe, cultural identity and humanitarian values. But now the tone is different, welcoming to Ukrainians.

A third area of difference is private sector contributions and donations. Many private citizens are hosting refugees in their homes. The UN called for $500 million in aid for Ukraine; as of March, $200 million[3] had come from private sector donations. In many refugee crises, there is an outpouring of private sector interest in wanting to help, but weak coordination among private entities and the humanitarian aid system about how to do so. There are not many examples of the humanitarian response mobilising the private sector to this extent and slotting it into policies, procedures and organisational structures. But with this crisis there is an opportunity to come up with a new model[4] that could be replicated in other circumstances.

What would that look like? How exactly can we make the best use of the private sector in situations like this?

The private sector wants to help. So how can it slot in? The first way everyone thinks of is funding, but I think the biggest untapped opportunities are skills, technical capabilities and advising, and in-kind resources. There are several areas where the capabilities of the private sector could help.

$200 million

AID FROM PRIVATE SECTOR DONATIONS

For example, there are millions of refugees congregated in rural areas, such as eastern Poland, that may not be able to handle them well both in the near term and the longer term. Logistics resources could be leveraged to enable such areas to have access to needed supplies or temporary facilities. Transportation resources could be leveraged to help get people dispersed across Europe.

Another area is education. More than half of refugees are children, and they need school facilities that do not exist. So there could be a massive push

from the private sector to create prefabricated school buildings and get these children back to school.

Another area is online inclusion and financial access. One of the greatest technology needs[5] for refugees is internet access for up-to-date information and communication. Polls show that displaced people value the ability to communicate almost as much as they value food and shelter – it has become a quintessential human need rather than a luxury.

1.8
million

COLOMBIA GAVE TEN-YEAR TEMPORARY PROTECTION STATUS TO 1.8 MILLION VENEZUELANS

Ukrainians need help getting online so that they can communicate with family, find jobs, and access banking services. Finding ways to enable access to these tools is another important way the private sector could contribute.

Another area where technology is needed is in supporting platforms and systems for aid agencies, along with the skill base to operate these over time. Historically, aid agencies have struggled with data systems that are both efficient and carefully protect the data of displaced people, so the private sector could lend support here.

"Polls show that displaced people value the ability to communicate almost as much as they value food and shelter – it has become a quintessential human need rather than a luxury."

Job matching can be really effective – especially as many refugee situations end up being long term. Our recent RAND study[6] found that, on average, less than a third of refugees return to their homes ten years after a conflict ends. If conflict continues in Ukraine, then a large number of Ukrainians are likely to not return any time soon, and it will be important for them to have the dignity and self-sufficiency of a job.

We have seen cases of successful job matching in Germany, Sweden, and several other European countries, where skilled refugees are placed in areas that have specific labour shortages. How does this work?

In the 1990s, Sweden recognised the importance of integration with the labour market and implemented a dispersal policy that assigned refugees to communities based on labour needs rather than solely population levels. This lowered the unemployment rate for refugees and reduced poverty over time. However, that is not something that we can apply to the current crisis because it assigns people to live in a particular place, and Ukrainians have freedom of movement under the temporary protection status that they have been granted.

Another model could be Colombia[7]. In 2021, it gave ten-year temporary protection status to 1.8 million[8] Venezuelans, allowing them to stay, work, and access public services. I think that is something that many refugee host countries should be aiming for, as many refugee host countries keep refugees in a restricted status that limits their ability to work and support themselves, because of concern that refugees may compete for jobs with citizens.

Treating refugees as an economic opportunity can lead to win-win solutions[9] for both the refugees and their host countries. Germany, for example, has said that it requires 400,000[10] workers per year to meet the needs of its economy, and there are also chronic labour shortages[11] in many Eastern European countries. This is one area where the private sector could step in to figure out the needs of the labour market, coordinate with governments and multilateral agencies, and form a coordinated communication response to offer jobs to Ukrainians with required skills.

What about education? How can host countries set up the infrastructure to educate displaced children?

A big risk is educational loss among Ukrainian children. About half[12] of refugee children globally are not in school. While European countries have many resources that could enable them to avoid this, many challenges remain for getting all Ukrainian refugee children into school.

"If tens of thousands of new teachers are needed throughout Europe, are there teachers among Ukrainian refugees who could teach?"

There are two scenarios here. In one scenario, refugee children can be absorbed into extra spaces in existing public schools, in places where there are not many Ukrainians in comparison to the size of the host population, as they are in Naples[13], Italy, for example. In another scenario, in places where there are so many Ukrainian refugees that there are not enough existing school spaces for them, such as in parts of Poland, schools may need to be built.

There are approximately 3.5 million Ukrainian refugees in Poland. Back of the envelope, if roughly 1.5 million are school-age children, with 30 kids per classroom, that means about 50,000 new classrooms and 50,000 new teachers could be needed. And this situation could continue for several years. So there would need to be a huge push on creating school infrastructure fast, such as with prefabricated buildings. Again, this is something that can be coordinated between UN agencies, the government and the private sector.

400
thousand

WORKERS NEEDED PER YEAR TO MEET THE NEEDS OF GERMANY'S ECONOMY

There could also be labour market opportunities related to Ukrainian refugee education. If tens of thousands of new teachers are needed throughout Europe, are there teachers among Ukrainian refugees who could teach? Are there unemployed or retired teachers around Europe who could get involved? Of course there are issues surrounding the curriculum, language transition, and the psychosocial needs of kids who have been traumatised. But it starts with access – getting enough classrooms and teachers so there is not a lost generation of Ukrainian children who could not go to school.

With long-term humanitarian issues like this, is there a risk of refugee fatigue affecting funding? What can be done to overcome that?

There is a big risk of refugee fatigue. Currently, there is a wide welcome for these refugees. There are also risks that this welcome could sour if host communities feel overwhelmed. In some other refugee crises, there have been tipping points where the initial welcome has turned into resentment or frustration – even in countries where the refugees were similar in culture and heritage to the host community.

"The key to maintaining the initial level of support could be making sure that host communities are not neglected or overwhelmed."

The sources of this resentment are often practical things resulting from huge population changes: crowded classrooms, longer waits for healthcare, perceptions of competition for jobs, increased costs of rent – or if the refugee response was generally managed in a way that feels chaotic to locals or makes them feel unsafe.

It is important to remember that host communities matter, and that there can be some very real public issues that come with such massive shifts in populations. So the key to maintaining the initial level of support could be making sure that host communities are not neglected or overwhelmed.

The RAND Corporation is a nonprofit institution that aims to improve policy and decision-making through research and analysis.

[1]https://frontex.europa.eu/we-know/migratory-map/
[2]https://nationalinterest.org/feature/how-europe-dealt-migration-37577
[3]https://www.unhcr.org/en-us/news/press/2022/3/622f7d1f4/private-sector-donates-us200-million-unhcrs-ukraine-emergency-response.html
[4]https://foreignpolicy.com/2022/03/25/ukraine-refugee-crisis-russia-war-eu/
[5]https://www.rand.org/pubs/research_reports/RR4322.html
[6]https://www.rand.org/pubs/research_reports/RRA1327-1.html
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[12]https://www.unhcr.org/en-us/publications/education/612f85d64/unhcr-education-report-2021-staying-course-challenges-facing-refugee-education.html
[13]https://www.forbes.com/sites/rebeccahughes/2022/03/15/italian-school-gives-heartwarming-welcome-to-ukrainian-refugee-children/?sh=429b1d31251e

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INVESTMENT THINKING

INVESTMENT THINKING

RULES OF ENGAGEMENT

Investors need to think carefully about how they engage with the businesses in which they put their money and trust. Here's why.

ALAN EDINGTON
Investment Manager – Responsible Investment

Alan is Investment Manager, Responsible Investment and a member of the Investment Management Committee at Walter Scott. Prior to joining the firm in 2012, he worked at ManoCap, a private equity firm based in Sierra Leone, and as a lawyer at Slaughter and May. Before university, Alan undertook an extended internship at Walter Scott. He holds a BA (Hons) in Law from the University of Oxford. Alan is a CFA charterholder.

What does engagement mean to you?

Jamie Zegleman: Engagement is a critical part of long-term investment. It's a significant tool for building relationships with companies, for getting information on management strategy, and for really understanding the long-term risks and opportunities.

Alan Edington: Another aspect of engagement is to challenge management teams. We get to ask questions that are designed to say: Are you sure? How can you convince us? Can you give us evidence that this is the right way to think about the long-term strategic position of the business? This kind of challenge is a really important part of the long-term process.

Fiona Macrae: Engagement meetings are also a way to properly get a feel for the nuances of a company's culture. I remember one where a usually confident and smart IR person seemed to be absolutely terrified of the CEO, and I thought do you really want to invest in a company where people are so frightened to question the boss?

It's a useful way to identify broader themes too. For example, a company might tell you how difficult it is to operate in China, or the issues around moving to the cloud. You can take information from one engagement that might be useful to know in a different context when you see other companies.

AE: We all use engagement meetings for slightly different ends, but it all filters into the bigger picture. I think treating meetings as a screening tool is a really interesting idea. A company can tick all the boxes on paper, but when you meet the management team you might get the impression they're running the business too hard, or the long-term strategies are a bit jumbled. You may get a sense that there are risks you can't perceive from desk-based research.

Does the ability to challenge a company change the longer you're invested with them, and the more Walter Scott grows as an investor?

AE: I don't feel like the conversation or the way we conduct that conversation has really changed as we've grown, although fundamentally if you're a large shareholder, management are more likely to listen to what you're saying.

I think that management teams have tended to meet with us a lot over the years anyway, because we've always taken a long-term strategic perspective and asked common sense but thoughtful questions. I think we've always had that two-way exchange of information with companies.

FM: We are in a privileged position to be able to meet the senior management of a lot of good companies, and you always want to be respectful of that position. Whatever the size of AUM you have, you're there to engage with company management and to have a two-way conversation.

JZ: You get the impression that a lot of investor meetings are focused on short-term results. While we do touch on some of these things, our time horizon tends to be strategic, and the questions cover long-term challenges and opportunities, which aligns more with how most management teams are thinking about their businesses.

Where there has been evolution is in the range of topics of conversations we're engaging in. Initially in my career, governance was the most regularly discussed of the ESG elements, but now we spend a lot more time on environmental and social issues.

For example, we're engaging with companies to understand how they manage supply chain risks in relation to social issues. That kind of thing has definitely moved further forward in investors' and management's minds. Some of our best examples of engagement are in companies where we've

"A company can tick all the boxes on paper, but when you meet the management team you might get the impression they're running the business too hard."

FIONA MACRAE
Investment Manager

Fiona is an investment manager and a member of the Investment Management Committee at Walter Scott, who joined the firm in 2014. She began her career as an investment manager in 1987, most recently working at Alliance Trust where she was responsible for European equities. She holds an LLB (Hons) in Law from the University of Edinburgh.

JAMIE ZEGLEMAN
Investment Manager

Jamie is an investment manager at Walter Scott, who joined the firm in 2008. He has experience across each of the three regional research teams. Jamie holds an MA (Hons) in Mathematics and Economics from the University of St Andrews and is a CFA charterholder.

built up a trusting relationship with the management teams over time through regular dialogue, and in doing so they become more interested in what we have to say on many of these issues.

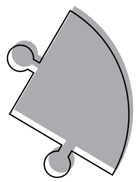
Is there a central engagement philosophy that you all follow?

AE: We set out some tramlines within which you can play – essentially a set of broad criteria – and then the individual can decide how they want to try to get to the end result. With engagement, we also all follow a similar approach to initial conversations. For example, we lay out at the start of every meeting who we are and what we do, and essentially what we look for in an investment.

"We lay out at the start of every meeting who we are and what we do, and essentially what we look for in an investment."

We do that in order to instruct the management team about the way we're going to run the meeting – that we're thinking about the long term, a company's growth profile, profitability, balance sheet strength, valuation, sustainability. And that sets out the framework for the questioning. There may be a specific issue that you want to get into a meeting, but the general information gathering follows a couple of paths.

Part of our approach to engagement is about information gathering. That feeds into our analysis and helps us all to better complete our analytical frameworks. One of these is our 'seven sisters', which covers the seven areas that we think are important to investigate when we're analysing a business, and within that, there's a section that we refer to as 'integrity' – a four-part analysis that covers environment, carbon and climate risk, human and social capital, and governance. And within those tramlines, you're free to focus on what you think is most relevant.



Has that engagement framework evolved to meeting more than just the CEO?

AE: Companies have gradually brought more people for us to meet over the years, so you get to engage with the level of management below CEO or CFO in a way that you didn't as often a decade ago. And increasingly there might be a specific, specialist individual that comes along to meetings to support on certain questions.

"When you get out on the road, companies are more willing and more likely to give you access to more members of the management team."

FM: You might also engage with someone who's up and coming in the company that senior management has brought in as part of their development – being put in the hot seat in front of investors.

JZ: This is one of the reasons why research trips are important, because you get opportunities to meet with more than just the key point person. When you get out on the road, companies are more willing and more likely to give you access to more members of the management team.

FM: Yes, when you go to visit a manufacturing company, for example, you might get to talk to line managers, and people working on the shop floor. You get a feeling for the pride they may have in the company, or any frustrations – essentially, the real philosophy and inner-workings of the company.

How hard it is to engage senior management teams on questions of employee culture?

FM: There has been a change in recent years. Senior management are now very focused on the importance of employee engagement and company culture. It's definitely something that's open for discussion, and on the radar of what senior management talk about when they do roadshows.

"Senior management are now very focused on the importance of employee engagement and company culture."

AE: Covid-19 has had a big influence here. Everyone is worried about their employees and how they're going to maintain their productivity, how they're going to keep them on board. Employee retention and acquiring the right employees has been driven higher up the agenda – management have to worry about it, so we have to worry about it.

There are certain companies where retaining and acquiring good talent is really critical – IT services businesses, for example – and certain companies where it's not. So your focus shifts depending on the business; but because we've got the consistent framework that we apply to every business, you're never going to forget to think about the question on employee culture.

JZ: One of the things we've always done is speak to competitors, suppliers and customers of all the companies we own, so you get a sense of those cultural elements of a business from speaking to other organisations. It's crucial, because a good company with a good culture is going to be keeping most of their various stakeholders – employees, suppliers, customers, investors – happy.

What's the best example of where your engagement has worked?

JZ: One that jumps out to me is with an electricity utility based in Hong Kong. My colleague Tom Miedema led this engagement. At the outset, Tom believed the company could accelerate the decommissioning of its coal-fired power generation without having a material impact on profitability and prospects for growth. Tom and I raised that question with the CEO at an initial meeting in Hong Kong. That meeting, which was more of a fact-finding exercise, led to us following up with a formal letter encouraging a strategic review of the company's coal-fire power generation.

"The extent of which we were the driving force behind that is hard to measure, but we started a conversation, drove the agenda forward and saw the company take action."

The next time the management team were in Edinburgh, they came to see us and we talked about it further. Over time, they committed to no new coal-fire power generation development, which meant taking some new projects off the table. They also committed to net zero by 2050 with a detailed plan laid out, and agreed with a state government in Australia to close a coal plant early. The extent of which we were the driving force behind that is hard to measure, but we started a conversation, drove the agenda forward and saw the company take action.

AE: It's important to remember that the vast majority of our engagements are for information, rather than pushing for change as such. But we do set out what we think 'good' looks like, and every question we address with management is nudging them in that direction. There are lots of small engagements like this where we see a positive change. For example, we led the conversation with an Australian-listed fast-food company around CDP's (formerly the Carbon Disclosure Project) annual investor engagement programme. When we asked them to fill in the questionnaire that CDP sends to everybody, the company management were very frank. They were open in saying, "We don't measure any of this yet, but we realise we need to, so we're going to hire someone – if you could talk us through what you think we need to focus on primarily, that would be really useful". So although we didn't necessarily drive a huge change at the business, we definitely had a positive two-way engagement.

FM: One that jumps to mind for me is a leading French consumer goods company that is really a poster company in terms of ESG. We recently had a meeting to discuss the potential items that they were going to put on their AGM agenda, and they were running things past us to ask what we thought, how we see certain things in terms of our long-term investment position. So it was really more of a two-way discussion rather than us just voting on issues at the AGM, which I think is valuable for both of us.

Does two-way engagement help to strengthen personal relationships with management, and does that potentially make some conversations more difficult?

> **"I wouldn't say you develop a friendship with CEOs, but you do strike a rapport."**

AE: I wouldn't say you develop a friendship with CEOs, but you do strike a rapport. I don't think it ever crosses a line into anything that makes it uncomfortable to have a difficult conversation. We're always serious about what we do, and we're professional in the way that we go about it. Displaying disappointment or asking about longer-term challenges is just a logical next step.

The most uncomfortable I've ever found any of these types of conversation is the call you make to say that you've sold the position in the company sometimes after a decade or two. Perhaps the most interesting question that could cause some discomfort is asking a CEO if they have a problem with the culture of their business, because that does go to the heart of how they're trying to run their company. I don't think we have ever been shy of asking that question though.

FM: Yes, you can't avoid these scenarios. But this is why I think it is really important for more than one person to go to a meeting with company management. Directing the meeting and the questions can be intense, so having a second person there who can pick things out of the answers can be really useful.

> **"I think getting multiple viewpoints is really important, which is why a number of Research team colleagues participate in the meetings we have with companies."**

JZ: I think getting multiple viewpoints is really important, which is why a number of Research team colleagues participate in the meetings we have with companies, and why we do research trips in pairs, so there is someone else from the team in any company meeting that we do on the road. If a relationship is tied to one individual's view on company and the management team, there's always the risk of getting too close and overlooking issues that others with an outside perspective might not have been so forgiving of. It can work the other way too – when you spend your entire time looking at a particular company, you often end up only seeing the negatives. Having others participate in company engagement and then being able to discuss and debate these areas is extremely useful.

What are the benefits of being able to engage with company heads on a regular basis – how does it help in your roles?

FM: It's a huge help, especially to younger or newer analysts. I was discussing this with a colleague recently, who said that attending multiple meetings was really useful as it helps frame what makes a good company or a bad company. Engagement is an essential part of your learning curve.

AE: We encourage new analysts to take lots of company meetings because you get a sense of what good smells like and what bad smells like. You get to understand which business models work, and which models struggle.

FM: And in those meetings, I also always say to people to never be afraid of asking what you might think to be a stupid question – because it's probably the question everybody else in the room is thinking.

SEE ALSO

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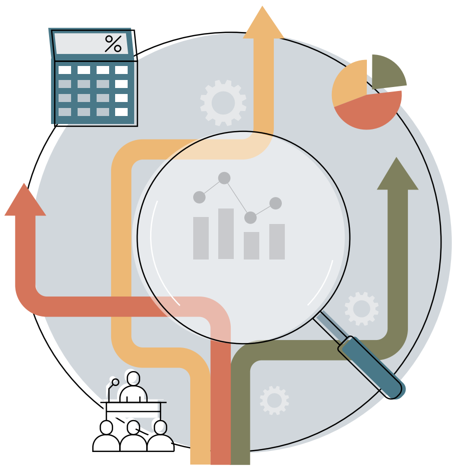
Journal 7

BUSINESS IN PERSPECTIVE

PUSHING BACK AGAINST **BUYBACKS**



Their popularity may again be on the rise, but making a case for share buybacks is far from straightforward.

Share buybacks – should we love them or loathe them? Corporates are firmly in the former camp: Goldman Sachs[1] expects US companies to buy back a record $1 trillion worth of their own stock in 2022, with countries such as the UK[2] also set to hit new highs. Politicians are increasingly concerned. In the US, the Biden administration[3] suspects that corporate affection for buybacks may be based on their ability to boost the value of executive share plans, and is planning a crackdown on the trend. Japan[4] is mulling similar regulation.

$1 trillion

THE VALUE OF US STOCK EXPECTED TO BE BOUGHT BACK IN 2022

A TIDY WAY TO CLEAR UP EXCESS

The traditional argument for share buybacks is that it makes no sense for corporates to keep surplus capital on their balance sheets; if no profitable use can be found for it, it should be returned to shareholders. Buybacks, moreover, are a more flexible way to make returns to shareholders than dividends: they constitute a one-off tailored arrangement, whereas annual dividends are less easy to adjust.

ROY LECKIE
Executive Director – Investment & Client Service

Roy is Executive Director, Investment & Client Service at Walter Scott. Since joining the firm in 1995, he has held a range of investment, management, client service and governance responsibilities. Roy was integral to the development of the firm's emerging market capabilities, and he has played a central role in the stewardship of Walter Scott's global and international strategies since 2007. Roy joined the firm's Board in 2008 and is Co-Chair of the InvestmentManagement Committee. He holds a BSc (Hons) in Statistics from the University of Glasgow.

CHARLIE MACQUAKER
Executive Director – Investment

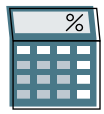
Charlie is Executive Director, Investment at Walter Scott. Having joined the firm in 1991, he has held a range of investment, management, client service and governance responsibilities and has had extensive experience of analysing companies around the world, particularly in Europe and Japan. Charlie joined the Board in 2009 and is Co-Chair of the Investment Management Committee. He holds a BSc (Econ) (Hons) in European Studies from the University of Buckingham.

Defenders of the buyback model say that the accusation that stock repurchases are being used to line executives' pockets is misleading. Rather, buybacks ensure that executives have a greater share of the remaining equity – and, therefore, even greater incentive to deliver long-term value for all shareholders.

"Capital allocation is the most fundamental responsibility of any corporate management team, but CEOs and CFOs routinely get this wrong," argues Roy Leckie, Executive Director, Investment & Client Service at Walter Scott. "In many instances – not all, but many – buying back stock is a misallocation of capital."

"I have a real bug bear when I see some US companies label themselves as growth companies and they don't pay any dividend and the mantra is buybacks, buybacks buybacks," says Charlie Macquaker, Executive Director, Investment at Walter Scott. "It's very one dimensional."

"I have a real bug bear when I see some US companies label themselves as growth companies and they don't pay any dividend and the mantra is buybacks, buybacks buybacks."



THREE RULES OF BUYING BACK

Leckie's view is that, although sometimes buybacks make sense, they must satisfy three conditions: "First, the shares being bought back must be very obviously undervalued," he argues. "Second, the company must be very obviously overcapitalised. And third, management must have nothing better to do with this excess capital."

While there is an element of subjectivity to those tests – particularly the first two – they are challenging to meet. Even in the current environment, where stock markets have recorded significant setbacks in 2022 to date, and where many companies report being flush with cash, there is no clear consensus that businesses are either overcapitalised or undervalued.

Executives should seek to exhaust all other avenues before resorting to a buyback, argues Macquaker. "A buyback straight away shows a lack of imagination; it suggests the business has run out of ideas," he suggests. "Surplus capital should be going into capital investment but, even if you end up running out of puff with cash still burning a hole in your pocket, there will be other opportunities – M&A, for example."

$41.5 billion

BOEING'S SPEND ON SHARE BUYBACKS BETWEEN 2015 AND 2019

Failure to identify those opportunities could undermine the business's long-term value story. Aircraft manufacturer Boeing, for example, spent $41.5 billion on share buybacks between 2015 and 2019, but only $21 billion on R&D over the same period. The buyback pot might have been better invested in updating its 737 Max plane, which the company's management eventually conceded[5] had fallen short on safety. Boeing[6] has since estimated that the two crashes of its 737 Max airliners cost them $19 billion.

SAVE NOW FOR FUTURE SECURITY

Even if the search for investment opportunities has been exhausted (a scenario difficult to imagine in an era of digital transformation and the climate-change imperative), there is a case for fixing the roof while the sun shines. "If you don't save for a rainy day, you will eventually be caught short," warns Leckie.

British food and support services business Compass Group is a case in point. It bought £1.8 billion of its own stock between 2012 and 2016; just four years later, as Covid-19 hit its business, it was compelled to launch a £2.5-billion fund-raising campaign. "Maybe, if it had not spent so much on its shares, it wouldn't have needed to raise emergency funds," Leckie adds.

No-one saw the pandemic coming, but rainy-day funds are there precisely for that reason: to protect businesses against the unexpected. It is a lesson that coffee-shop chain Starbucks has also learnt the hard way. In April, on the first day of his third stint running the business, Howard Schultz suspended[7] the company's share-buyback programme – worth $3.5 billion in the final quarter of 2021 alone – in order to redirect capital to stores and staff.

CONTAINING THE BUYBACK BUG

If share buybacks are so often misconceived, why are they everywhere? Political intervention may be the best way to manage this epidemic. President Biden's proposals would require that executives who receive shares as part of remuneration packages hold on to them for a set period.

Such regulation would not eliminate buybacks, but it would reduce the incentive for executives to launch initiatives that drive short-term share-price appreciation and undermine long-term value. This sort of legislation could dampen the ardour for buyback programmes, particularly among corporates themselves.

$3.5 billion

VALUE OF STARBUCKS' SHARE-BUYBACK PROGRAMME IN Q4 2021

A different intervention approach might tackle demand for buybacks, as well as supply. After all, one attraction of buybacks is they are more tax-efficient than dividend payments. The price of their stock appreciates, but capital-gains tax can be deferred until that gain is crystallised. Or, for shareholders who sell, capital-gains tax rates in many jurisdictions are lower than the income-tax rates that typically apply on dividend pay-outs.

"Maybe, if it had not spent so much on its shares, it wouldn't have needed to raise emergency funds."

Rethinking the taxation of share buybacks might be sensible. If the playing field were level, those investors who have been most active in pushing management to prioritise buybacks over pursuing a progressive dividend policy might think twice.

"My contention is that, in many cases, zero out of the three conditions that I like to see with companies buying back stock are being met," states Leckie. Even in the absence of interventions that reduce the appeal of share buybacks, Leckie argues, both corporates and their shareholders need to spend more time on the fundamental debate about the value of the buyback model.

Taking the US corporate landscape, Leckie concludes: "I just think much of those trillion dollars could be put to better use by making sure that America remains the number one economy five, 10, 15, 25 years from now".

[1]https://markets.businessinsider.com/news/stocks/stock-buybacks-1-trillion-2022-ukraine-war-fed-rate-hikes-2022-3
[2]https://www.ajbell.co.uk/news/share-buybacks-course-record-year-already
[3]https://money.usnews.com/investing/news/articles/2022-03-28/biden-budget-plan-seeks-to-add-corporate-buyback-restrictions#:~:text=NEW%20YORK%20(Reuters)%20%2DU.S
[4]https://www.bloomberg.com/news/articles/2022-01-31/buyback-limit-concerns-overblown-tokyo-exchange-chief-says
[5]https://www.cnbc.com/2019/10/29/boeing-tells-lawmakers-that-safety-assessments-of-737-max-fell-short.html
[6]https://www.theguardian.com/business/2020/jan/29/boeing-puts-cost-of-737-max-crashes-at-19bn-as-it-slumps-to-annual-loss
[7]https://www.ft.com/content/3806b6ef-e860-4f8d-8677-a1eed5d0948f

TECHNOLOGY LENS

TECHNOLOGY LENS

ONE-STOP SHOP

Many Asian consumers use a single app for payments, chat, transportation – and even dating. What does this era of 'super-apps' mean for the West's rapidly evolving payments industry?

LINDSAY SCOTT
Investment Manager

Lindsay is an investment manager at Walter Scott. Prior to joining the firm in 2004, she trained in accountancy at AstraZeneca before focusing on European healthcare within SG Cowen's corporate finance team. Lindsay holds a BSc (Hons) in Biology from the University of Nottingham and an International MBA awarded jointly by the University of Edinburgh and ESADE Business School in Spain.

The industry that has embraced digitalisation more rapidly than any other is arguably the one that provides the glue for all the rest. It is easy to overlook how far and fast the payments industry has evolved, until you remember that even 15 years ago, the quickest way to move money from London to New York was to get the cash out of the bank and jump on a plane; today, you can move that money in near real time at almost zero cost.

It should have been obvious that payments would be at the vanguard of digitalisation. It is not just that every product or service sold digitally must be paid for, but also that the very nature of digital payments – the transfer of data between two platforms capable of talking to one another – is what underpins the digital economy in which we now live.

But in 1998, when PayPal was launched, its potential was not immediately recognised. Initially known as Confinity, it had limited success from its early forays into security software for hand-held devices such as Palm

"The industry that has embraced digitalisation more rapidly than any other is arguably the one that provides the glue for all the rest."

Pilots, and its payments system was seen as attractive only to users of the auction site eBay. Fast forward two decades, and by the first quarter of 2022, PayPal had 429 million active accounts in more than 200 markets worldwide and supported 5.2 billion transactions worth $323 billion.[1]

CASH OUT

Covid-19 has accelerated the evolution of both PayPal and the broader payments sector. In 2020 alone, the use of cash in markets such as the UK fell by 35%, with millions of people forced to switch to digital payments as they embraced ecommerce.[2] Globally, the Bank for International Settlements says the switch to digital and contactless payments has taken place at an unprecedented rate.[3]

35%

FALL IN USE OF CASH IN MARKETS SUCH AS THE UK IN 2020

There is no sign of this acceleration going into reverse. PayPal is reporting the same growth rates in the wake of the pandemic as it did before the pandemic.[4] The Dutch payments group Adyen, meanwhile, reported a 70% jump in transactions during 2021.[5]

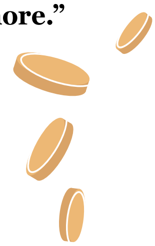
This growth is just a precursor of what is to come, says Lindsay Scott, Walter Scott Investment Manager. “I don’t think anybody has got a good grasp where that is going to level out,” she says. “But PayPal has been growing faster than the market, and I think it will continue to do so.”

That is not just because the use of cash is likely to continue to decline – although it seems likely – but because businesses such as PayPal are expanding into activities that go a long way beyond simply facilitating digital transactions between third parties. The future of payments is looking like something much broader.

THE RISE OF THE SUPER-APP

One emerging direction of travel is towards the ‘super-app’ model that has taken hold in Asia, where the likes of China’s WeChat and India’s Paytm offer convenient and affordable payments alongside myriad other services. So you can use WeChat as a digital wallet to make payments, but you can just as easily call a cab, order food or sign up to a dating service.

“Digital wallets are just taking ever more share, and you get that flywheel effect. The more you use it, the more you see the utility, and then you use it even more.”



In the West, platforms such as PayPal might not want to embrace that kind of breadth, although in 2021 mobile payments firm Square paid close to $300 million for music streaming service Tidal.[6] But they are already beginning to act as consolidators of financial services apps. “Digital wallets are just taking ever more share, and you get that flywheel effect,” says Scott. “The more you use it, the more you see the utility, and then you use it even more.”

PayPal’s $4 billion purchase of Honey in early 2020 is a case in point.[7] The shopping and rewards business helps consumers to find the best deals when buying products and services, tracking prices and identifying discounts. PayPal now enables users to link their accounts to their Honey accounts so they can redeem their rewards.

These services do not just provide additional value to customers, they also support other parts of the business. Some analysts expect Honey to become a shopping platform in its own right, enabling PayPal customers to buy products from multiple retailers in one place – and creating a rival to the likes of Amazon.

Others point to the increased data flows that Honey is bringing PayPal, and how that might help the latter to support the merchants on the other side of many of its transactions. “One thing that differentiates PayPal is that it invests in both the consumer and the merchant,” says Scott. “And this two-sided platform is unique.”

Indeed, PayPal sees merchants as a way to tap into the old world of payments as well as the new. We think of digital payments being used for digital transactions, but they are increasingly focused on supporting physical commerce too. For example, through Venmo, PayPal’s peer-to-peer payments service, shoppers can pay for products they purchase in-store. “Rather than being a card with an app, it’s an app with a card,” says Scott.

$25 billion

SQUARE PAID $29 BILLION FOR AFTERPAY IN 2021

ONLY THE STRONGEST WILL SURVIVE

One challenge for payments providers as they pursue these new directions is that each new venture brings additional competition – both from the incumbent providers in a given market and from rival payment platforms, which are pursuing the same opportunities.

The super-app model, for example, takes PayPal and others directly into the firing line of tech giants Apple and Google, which are understandably anxious about a world where people use just a single app instead of downloading multiple apps from them. PayPal’s move into the buy now, pay later market, meanwhile, pitches it against rivals such as Square, which paid $29 billion for Afterpay in 2021,[8] and fintechs such as Klarna.

“People know they are not some upstart where you could lose all your money. There is a kind of safety net in the PayPal brand.”

In the current ultra-competitive market, scale and trust are going to be everything, Scott believes. The huge amounts of cash that PayPal generates has enabled it to invest heavily in each new venture, she says, and the company has huge brand awareness. “People know they are not some upstart where you could lose all your money,” she says. “There is a kind of safety net in the PayPal brand.”

In that sense, the payments industry may be about to turn full circle. It started as a sector of new entrants disrupting a market in which traditional financial services providers were failing to innovate. Now, it could become an industry of behemoths – dominated by a handful of large platforms offering multiple services to consumers and merchants alike.

LEADING THE PACK: VENMO DOMINATES THE PEER-TO-PEER MARKET

Not many brands have the luxury of seeing their intellectual property become a verb, but PayPal's Venmo is one of them. The US peer-to-peer money transfer service, which lets friends and families pay one another or request a payment, is now ubiquitous. Venmo has more than 70 million users, and Americans who owe money are increasingly likely to say: "I'll Venmo you".[9]

The development of Venmo, which PayPal acquired a decade ago when it was still part of eBay, is beginning to mirror that of its parent company, with an expansionary vision of what a payments app should provide. Part of its popularity is its social network-style functionality, and Venmo now offers a growing range of additional services, including a credit card, savings accounts and even cryptocurrency trading.

In addition, Venmo users can now use the app to pay a growing number of businesses, such as Uber Eats, and to pay in-store at merchants who accept it. And the company has also agreed a deal with Amazon to allow shoppers on its platform to pay using Venmo – an agreement it has never reached with PayPal itself. "The potential growth and monetisation opportunities are massive," says Walter Scott's Lindsay Scott.

[1]'Investor Relations Q1 2022 metrics', PayPal, https://investor.pypl.com/home/default.aspx
[2]'Cash use plunges during pandemic', Financial Times, June 2021 https://www.ft.com/content/c4c39abc-93b2-46f5-a731-9dd95840b841
[3]'Covid-19 accelerated the digitalisation of payments', Bank for International Settlements, December 2021, https://www.bis.org/statistics/payment_stats/commentary2112.htm
[4]Wedgewood Partners – PayPal: Generating Roughly The Same Growth Rates Post-COVID As It Did Pre-COVID, Seeking Alpha, May 2022, https://seekingalpha.com/article/4514873-paypal-generating-roughly-the-same-growth-rates-post-covid-as-it-did-pre-covid
[5]'Digital payments group Adyen reports 70% jump in transaction volumes', Financial Times, February 2022, https://www.ft.com/content/9384f23b-f7ab-43da-bd7a-7c48e66ab9f1
[6]'Jack Dorsey's Square buys $300m stake in Jay-Z's streaming firm Tidal', City A.M., March 2021, https://www.cityam.com/jack-dorseys-square-buys-300m-stake-in-jay-zs-streaming-firm-tidal/
[7]'PayPal Finalizes $4B Honey Acquisition', PYMNTS.com, January 2020, https://www.pymnts.com/news/partnerships-acquisitions/2020/paypal-finalizes-4-billion-dollar-honey-acquisition/
[8]'Why Square Acquired Afterpay For $29 Billion', Forbes, August 2021, https://www.forbes.com/sites/ronshevlin/2021/08/02/why-square-acquired-afterpay-for-29-billion-merchant-and-cashapp-user-acquisition
[9]Venmo Revenue and Usage Statistics (2022), Business of Apps, May 2022, https://www.businessofapps.com/data/venmo-statistics/

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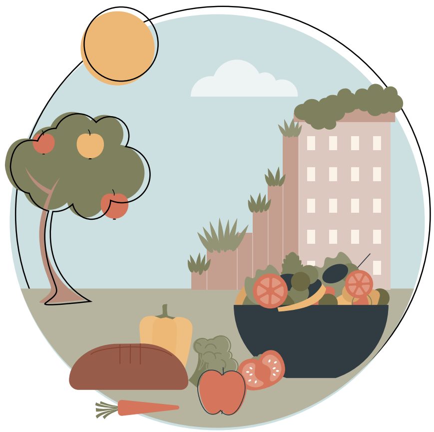
CITIES THAT FEED THEMSELVES



How the rise in urban food production could help solve global food shortages.

FIONA MACRAE
Investment Manager

Fiona is an investment manager and a member of the Investment Management Committee at Walter Scott, who joined the firm in 2014. She began her career as an investment manager in 1987, most recently working at Alliance Trust where she was responsible for European equities. She holds an LLB (Hons) in Law from the University of Edinburgh.

The contemporary crises of the pandemic and the Russian invasion of Ukraine have exposed frailties in a global supply chain that many of us took for granted. Every industry is feeling the strain, but the sharpest pressure has fallen on our most vital resource: food.

12%

UKRAINE AND RUSSIA ACCOUNT FOR AROUND 12% OF THE CALORIFIC VALUE TRADED WORLDWIDE

According to estimates from the International Food Policy Research Institute, the combined food exports of Ukraine and Russia account for around 12% of the calorific value traded worldwide[1]. As the conflict between these countries drastically exacerbates post-pandemic food deficits, missing links in the food supply chain have created serious shortages of staples such as wheat, barley, maize and sunflower oil, affecting communities across the world. In March 2022, average global food prices hit an all-time high[2], prompting widespread shortages and pushing countries such as Sudan, Pakistan, Ethiopia and Yemen into acute food insecurity.

“Most people in the West have seen the percentage of their incomes that is spent on food declining for decades – suddenly, just a slight increase shows us the vulnerability of the system, and also how much power resides in so few companies around the world," says Fiona Macrae, Investment Manager at Walter Scott.

The outlook remains uncertain, but the lesson is clear: to become resilient to global shocks, food supply chains need to get smarter, smaller and more sustainable. Could part of the solution lie in urban food production?

FOOD FOR THE FUTURE

Beneath the busy streets of Clapham in south-west London, fields of crops are thriving without sunlight or soil. This is Zero Carbon Farms, a pioneering sustainable farm cultivating fresh microgreens in tunnels used as a bomb shelter in World War II. A fully carbon-negative hydroponics system sees year-round yields, with all produce sold locally, meaning that salad leaves could be on your plate within four hours of being picked and packed.

"They can produce more crops with far less space and resources than traditional open-field farming and aren't reliant on the weather or pesticides."

'Vertical farms' such as this are appearing in urban spaces around the world, using venues from shipping containers and rooftops to mine shafts and train tunnels. By growing plants in vertical layers with controlled lighting, irrigation, fertigation and climate systems, they present a potential solution to the frailties of complex international supply chains, which are vulnerable to unforeseen external impact. They can produce more crops with far less space and resources than traditional open-field farming and aren't reliant on the weather or pesticides, so they can grow all year round.

As agricultural technology advances and climate variability affects production levels, this sustainable, soil-free farming model has attracted increasing interest. Moreover, in a world where a meal can travel thousands of miles before it reaches your plate, the benefits of localised food production are clear, both for the environment and the supply chain. Driven by the need to restock empty supermarket shelves and combat rising food prices, the global vertical farming market is growing steadily and is expected to reach around $20 billion by 2025[3].

$20 billion

EXPECTED GLOBAL VERTICAL FARMING MARKET VALUE BY 2025

At present, however, urban food production in developed nations is informal, centred around allotments, community gardens and clusters of fruit trees. In the UK, these only produce enough fruit and vegetables to supply the urban population for around 30 days a year[4]. More than a third of the UK's total food comes from overseas, with imports of fresh fruit and vegetables almost doubling between 1996 and 2015[5].

However, a recent study has shown another way. Launched by Lancaster University, the UK's first nationwide survey of urban growing potential has found that, if its cities turned their underused areas to cultivation, the nation could grow up to eight times its current production of fruit and vegetables[6]. The study suggests that 25-50% of urban land could be used for food, including gardens, parks, playing fields, watersides and other overlooked green spaces.

"You don't want to convert more land to agriculture, as that drives biodiversity loss and climate change," Jess Davies, Professor in Sustainability at Lancaster, told *The Guardian*[7]. "But we have shown that you don't need to. There is a lot of urban resource out there that is overlooked. We hope this research will spark conversations about the potential."

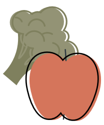
AN URBAN FARMING REVOLUTION?

In Denmark, pioneering startup Nordic Harvest has proved that rural-to-urban migration of agricultural processes is entirely possible. On the outskirts of Copenhagen in a 75,000ft^2 temperature-controlled warehouse, Europe's largest vertical farm is growing fresh salad leaves and herbs in 14 stacked layers. At full capacity, the farm will produce 1,000 tonnes of food a year – over 200 times more food per square metre than conventional farms – securing supply in Denmark and freeing up farmland for reforestation.

2.5 billion

PEOPLE EXPECTED TO LIVE IN CITIES BY 2050

Another leader in urban agriculture is Singapore. The city-state's population of over 5 million occupies just 715km^2 of land; in a country where space is at a premium and more than 90% of food is imported[8], food security is a priority for Singapore's government. Vertical farming offers a lifeline; the government aims to ramp up domestic production through its '30 by 30' initiative, with the aim of supplying 30% of the country's nutritional needs locally and sustainably by 2030[9]. At the centre of this strategy is US-based Kalera, whose 50ft, multi-layer megafarm will supply 500,000kg of leafy greens a year to the local market. The farm opens in 2022 with a promise to "change consumption of locally grown and harvested greens in Singapore as we know it."



"By changing the way food is grown and eaten, our Singapore farm, paired with our R&D centre, will continue to drive the global urban farming revolution."

"The new farm will offer holistic support to Singapore's long-term food-security plan, which gained added significance during the Covid-19 pandemic," said Kerstin Köhler, Kalera Singapore's Country Manager. "By changing the way food is grown and eaten, our Singapore farm, paired with our R&D centre, will continue to drive the global urban farming revolution."[10]

DIVERSITY IS KEY

For all its promise, vertical farming doesn't yet hold all the answers. Soil-free farming can be a cost-intensive endeavour, with high initial outlays a barrier for startups, who rely on securing scarce government grants. Although most use around 10% of the water[11] consumed by a traditional farm, they require expensive equipment such as climate controls, LED lighting, irrigation and ventilation systems. Energy expenses can also run high, with no economy of scale: a vertical farm bigger than 10,000 ft^2 spends an average of $8.02 per square foot on energy compared with only $3.45 per square foot for the smaller enterprises.[12]

As equipment costs fall and automation improves efficiency, vertical farming is slowly becoming more economical. This is certainly building momentum, but to establish truly resilient supply chains, urban areas need more than a single model. This was highlighted in 2019 in the UN's Urban Food Agenda[13], which identified the urgent need to strike a balance between international trade and local production. The highly disruptive recent international events have underscored the value of diverse, local suppliers in the networks we rely on.

Many cities are now embracing this, exploring multiple methods of local food production – either on a large scale, as in Copenhagen or Singapore, or a smaller one, as in the networks of community gardens in Seoul[14]. With more than half the world's population now living in urban centres, and an additional 2.5 billion expected to do so by 2050, smart-thinking cities like these offer a blueprint for the sustainable food systems of the future.

[1]How will Russia's invasion of Ukraine affect global food security? | IFPRI (International Food Policy Research Institute)
[2]These charts show food prices have increased sharply | World Economic Forum (weforum.org)
[3]Forecast for vertical farming market global 2025 | Statista
[4]Estimating food production in an urban landscape | Scientific Reports (nature.com)
[5]Study shows promise of urban farming | Article | Fruitnet
[6]https://iopscience.iop.org/article/10.1088/1748-9326/ac4730
[7]www.theguardian.com/food/2022/jan/24/uk-could-grow-up-fruit-and-vegetables-urban-green-spaces
[8]www.sfa.gov.sg/food-farming/singapore-food-supply/the-food-we-eat
[9]https://www.ourfoodfuture.gov.sg/30by30
[10]https://kalera.com/2022/03/01/kalera-completes-phase-one-of-singapores-first-vertical-mega-farm/
[11]https://www.eriemutual.com/insights/the-problem-with-vertical-farming/
[12]https://puregreensaz.com/vertical-farming-costs/
[13]www.fao.org/3/ca3151en/CA3151EN.pdf
[14]www.thegrocer.co.uk/brexit/food-security-how-can-uk-cities-feed-themselves/654962.article

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SELLING ON THE SMALL SCREEN

The pandemic acted as a catalyst for individual entrepreneurship and changing consumer habits. Will it be enough to sustain the creator economy?

LAURA CLARK
Investment Manager

Laura is an investment manager at Walter Scott. She joined the firm in 2017 having taken part in the investment intern programme in 2016. Prior to this, Laura completed internships at Murray Asset Management and Energy Saving Trust. She holds a BSc (Hons) in Mathematics from the University of Bristol.

“As the pandemic pulled forward years of e-commerce demand, the industry is now experiencing a cyclical slowdown as economies reopen.”

E-commerce is no longer just for monolithic retailers. Marketplaces and e-commerce tools have built the essential infrastructure for individuals to create digital global businesses. Today, many of us are just as likely to buy from individuals on Etsy or a Shopify-powered website as we are to step through the doors of a department store or a ubiquitous retail chain. As the pandemic pulled forward years of e-commerce demand, the industry is now experiencing a cyclical slowdown as economies reopen. But many of the new shopping habits that we adopted during this period will endure, so we ask: where does the creator economy go next?

Some of the changes triggered by the Covid-19 pandemic are here to stay. One of them is consumers’ increased connectivity, which has made digital transformation happen faster than expected. Lockdowns, company closures and layoffs radically affected how we worked, and many of us turned to our hobbies to make a living.

As restrictions came in, many people set up sole-trader businesses. The number of new US business applications during summer 2020 was higher than at any time during the past 15 years, with one-third of that growth coming from the non-store retail sector.[1] The pandemic also enabled workers to reassess their job satisfaction and career aspirations, prompting a swathe of voluntary resignations that has become known as 'The Great Resignation'. Two years on, new US business applications remain elevated and have yet to be affected by the deteriorating economic climate.

FROM SIDE HUSTLE TO MAIN EVENT

"Although the pandemic restrictions were devastating for so many people, it did give workers the time to pause and reflect on their jobs."

These changes turbocharged the creator economy, whereby entrepreneurs use digital platforms to build audiences at scale and make a living from their skills. This economy is now worth more than $100 billion, with an estimated 50 million creators around the world.[2]

"The pandemic acted as a catalyst for individual entrepreneurship," explains Laura Clark, Investment Manager at Walter Scott. "Although the pandemic restrictions were devastating for so many people, it did give workers the time to pause and reflect on their jobs. And in record numbers, through necessity or desire, new businesses were created."

For a long time, it would have been economically inconceivable for a smaller-scale producer or service provider to compete with standardised products – let alone offer something personalised. But now, entrepreneurs can use digital platforms to power their online shops and build audiences at scale through social media. Previously, these activities would have required large capital investments.

CONSUMPTION GETS MEANINGFUL

Changing consumer habits are another factor that is propelling the creator economy. The rise of responsible consumption and the desire for handcrafted unique items produced by small businesses or individuals are playing their part.

MORE THAN
$100 billion

THE WORTH OF CREATOR ECONOMY

Consumers want to 'shop better', and they care both about the businesses they purchase their products from and about those businesses' supply chains. "With the cost of living hikes now upon us, whether a product is handmade or unique is unlikely to be top priority for many consumers," says Clark. "However, in the long term there is a clear trend of consumers demanding more from businesses – particularly when information about corporate behaviour is so accessible."

Some companies found themselves in the sweet spot for these developments. One of these was Etsy, an online digital marketplace for handmade goods. It is focused on driving communication between buyers and sellers on the platform as it increases purchase conversion rates and order value. "You can have a conversation with the seller – you might want something in a particular colour or want to alter and personalise a design," says Clark. "The buyer also benefits from a feel-good factor that comes from knowing that their purchase is having a positive impact on that individual's small business and livelihood."

A NEW FASHION MODEL

Consumers are becoming increasingly aware of the fashion industry's destructive effects on the environment. As a result, the rental and resale market has also increased in popularity among consumers – particularly Generation Z and Millennials.

In a sign of this growing influence, in 2021 Etsy acquired one of the most popular resale platforms, Depop, for $1.63 billion. This trend is now also rooted within the luxury industry, and especially among younger customers. In 2021, Net-a-Porter, a pioneer in luxury online retail, launched a partnership with resale technology provider Reflaunt.[3] and in the same year Kering, the owner of the luxury brands Gucci, Saint Laurent and Bottega Veneta, invested in the luxury resale platform Vestiaire Collective. And it is not just online. Selfridges, for instance, has opened a physical branch of Kidswear Collective, dedicating 43 square metres of floor space to resale items.

75%

OF CONSUMERS CHANGED THEIR SHOPPING BEHAVIOURS DURING THE PANDEMIC

"There is a fundamental shift occurring in the luxury industry, with consumers embracing sustainable values and circularity and being more willing to buy second-hand items," says Clark. "Luxury brands have historically been cautious around resale due to counterfeits, distribution and pricing. But more are now willing to test new authentication processes and figure out where and whether resale might dilute brand equity." Brands are working with companies like Archive, for instance, which secured $8 million in funding in early 2022, which helps brands to take back ownership of the second-hand market from third-party sites that might not be providing an authentic brand experience.[4]

"There is a fundamental shift occurring in the luxury industry, with consumers embracing sustainable values and circularity and being more willing to buy second-hand items."

SOCIAL COMMERCE IS ON THE RISE

It is not just in the resale market where brands are being forced to rethink their approach. Another growth area is social commerce, where brands, retailers, individuals and small businesses sell to each other via social media.

According to McKinsey, 75% of consumers changed their shopping behaviours during the pandemic, and 39% – mainly Generation Z and Millennials – deserted trusted brands in favour of new ones.[5] So brands are looking for new ways to connect with customers whose loyalty is waning. Nike, for instance, is getting ahead of the curve by launching its own social channel, Nothing but Gold. Currently in development, the community-based app will bring together content on style, sport and self-care for Generation Z consumers, and enable them to shop directly within the app.

Social commerce is a rapidly growing part of the e-commerce landscape in the US, accounting for $37 billion (about 4%) of retail sales in 2020. In the UK[6], the industry is expected to grow by 37.5% on an annual basis to reach $21.13 billion in 2022. In China, it has grown to 14% of retail sales. “Many Western brands are now looking East to find out how this trend could develop,” says Clark.

Many social media platforms are now collaborating with Shopify, which teaches merchants how to set up stores across all social commerce platforms, optimise marketing dollars and grow buyer interest through original content. It knows that customer acquisition is a top pain point for its small merchants.

37.5%

EXPECTED ANNUAL GROWTH IN THE UK E-COMMERCE MARKET

WILL NEW PLATFORMS GIVE POWER BACK TO CREATORS?

Brands are not the only innovators here. Digital platforms are investing billions of dollars into so-called creator funds and exploring new revenue-sharing models with creators to maintain high levels of user engagement through original content. TikTok has announced that it will pay creators almost $2 billion over the next three years to support their careers online. And YouTube has introduced a $100 million Shorts Fund, which gives creators individual payouts of between $100 and $10,000 based on engagement with their videos.

But this can be a tricky balancing act. While platforms are trying to encourage creators’ loyalty, the creators themselves are increasingly aware of their own marketability and contribution to the success of the platforms on which they appear. So far, creators have struggled to negotiate better terms when dealing with some of the platform behemoths. So the next evolution of the creator economy could include a balance-of-power shift that sees creators build, operate and own the products they rely on, as Li Jin, Co-Founder of Variant Fund and Founder of Atelier Ventures, puts it: “Imagine an Uber-like ride-hailing service owned by its drivers and users, or an Etsy-like craft marketplace owned by its merchants and customers.”

“Imagine an Uber-like ride-hailing service owned by its drivers and users, or an Etsy-like craft marketplace owned by its merchants and customers.”

THE POWERPLAYS CONTINUE

As the saying goes, ‘In a gold rush, sell picks and shovels’, and to match this exponential growth in online content there are a slew of platforms and digital companies ready to assist. Technology news site The Information has estimated that venture capital firms invested $2 billion into 50 creator-focused start-ups in the first half of 2021.[7]

And with more tools comes greater freedom for creators to produce the content they want with the brands they want. That may well lead to brands resetting those relationships by moving from the transactional to the more collaborative. The evolution of the creator economy, with its different players and powerplays, shows no sign of slowing down.

ETSY'S CREATOR ECONOMY POWER STRUGGLE

Etsy was launched in 2005 as a marketplace for unique and bespoke goods. Part of its attraction lay in founder Rob Kalin's emphasis on the importance of the craft itself. "I speak to people in the business world and the technology world, but I don't admire them," he said in an early interview with *Inc.* magazine. "I admire the makers of the world."[8]

Today, Etsy is listed in the S&P 500 Index, but it has found itself sitting uncomfortably on the shifting tectonic plates of the creator economy. The platform recently raised transaction fees from 5% to 6.5%, which angered many sellers. A petition was raised demanding that the increase be cancelled, and 14,000 sellers temporarily refused to use the site.

14
thousand

THE NUMBER OF SELLERS TEMPORARILY REFUSED TO USE ETSY AFTER IT RAISED FEES

"Understandably, sellers are cross, but Etsy would argue that it is constantly investing in the platform to better display their products and differentiate themselves, and spending huge amounts on marketing to drive more buyers on to the platform," says Laura Clark at Walter Scott. "And its transaction fee is lower than many of its competitors'."

The sellers have a problem. However many thousands go on strike, they are easily replaced, and there is little alternative. Etsy's management said that less than 1% of its sellers turned their shops on to 'temporary vacation mode', and active listings declined by less than 1% during the week of the strike – and they had returned to their previous levels when the week was over.

For Etsy, the issue is the potential damage to its image. "Etsy holds itself out as a marketplace that empowers small artists," says Clark. "If consumers start to doubt that, and think it is trying to enrich itself at the expense of its sellers by increasing its fees, that could be brand-damaging."

"If consumers start to doubt that, and think it is trying to enrich itself at the expense of its sellers by increasing its fees, that could be brand-damaging."

[1] https://www.weforum.org/agenda/2021/09/new-business-applications-in-the-us-hit-historic-highs-last-year/
[2] https://www.economist.com/the-world-ahead/2021/11/08/li-jin-on-the-future-of-the-creator-economy?giftId=612aa528-9891-482f-9d3a-16d3abe9bd19
[3] https://www.harpersbazaar.com/fashion/trends/a38471403/net-a-porter-resale-service-reflaunt/
[4] https://www.forbes.com/sites/sharonedelson/2022/01/26/archive-raises-8-million-to-fuel-growth-of-white-label-resale-technology/?sh=3ae7b0de19ce
[5] https://www.mckinsey.com/business-functions/growth-marketing-and-sales/our-insights/emerging-consumer-trends-in-a-post-covid-19-world
[6] https://www.businesswire.com/news/home/20220503006107/en/United-Kingdom-Social-Commerce-Market-Report-2022-Market-is-Expected-to-Grow-by-37.5-to-Reach-21.13-Billion-in-2022---Forecast-to-2028---ResearchAndMarkets.com
[7] https://www.theinformation.com/articles/investments-in-creator-economy-startups-hit-2-billion-an-interview-with-homebrew-s-hunter-walk
[8] https://www.inc.com/magazine/20110401/can-rob-kalin-scale-etsy.html

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Journal 9

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END NOTE

A FESTIVAL OF INSPIRATION

***Nick Barley**, Director of the Edinburgh International Book Festival, shares his perspectives on adding a large and loyal online audience, developed through lockdown, to its in-person events.*

What has hybrid working meant for the Edinburgh International Book Festival?

Although it has damaged us all in one way or another, the pandemic did catalyse the transformation of the Book Festival, something we'd long been aiming for. We'd been recording our bigger events and sharing them online for some years, but in a rather tentative, half-hearted way. The pandemic forced us to become a genuinely hybrid operation and that has had several benefits.

"The pandemic forced us to become a genuinely hybrid operation and that has had several benefits."

First, we decided to invest emphatically in our own online platform, allowing us to screen filmed events and allow live questions and comments from our online audiences. That interactivity has allowed an equality of experience for audience members, whether they're in the theatres or in their own homes – in Edinburgh, Ethiopia or Egypt.

The second benefit has been that we've been able to offer greater accessibility. Some people have health issues that make it hard for them to spend time in busy theatre spaces; for others, it's simply a question of lacking the financial means to afford a ticket. Either way, live-streaming our events has made us more inclusive.

The third benefit has been our international reach. I was gobsmacked to learn that our 2020 and 2021 festivals were watched by people in every country in the world, bar four or five! I'm overjoyed about that. And it helps us attract authors of the very highest calibre.

"Our 2020 and 2021 festivals were watched by people in every country in the world, bar four or five!"

750-seater venue

ADDED FOR IN-PERSON EVENTS

One more thing is that we've been able to attract authors to join us on screen (interviewed by someone on stage in front of a live Edinburgh audience) who wouldn't otherwise have been able to take part. Noam Chomsky this year, for example, who is in his 90s and unable to manage the transatlantic flight. And that, in turn, means that we are reducing our carbon footprint, with fewer flights by authors. Lastly, by using a Pay What You Can system, we have found a way to earn an income from our online audience, meaning that the whole operation is financially sustainable – and much more resilient if, heaven forfend, there were to be another lockdown. While the beating heart of the festival remains the live, Edinburgh-based experience, hybrid has given us a whole new lease of life.

What changes have you made after reflecting on last year's event?

Under the circumstances, last year's festival was an emphatic success. That said, those circumstances could hardly have been more challenging: the Scottish government lifted its lockdown just three days before we opened, so we had to opt for very limited in-person capacities. The result was a small festival, with small live audiences. Even though plenty were watching online, what was missing was Edinburgh's trademark live buzz. What's more, we made the decision to move to the Edinburgh College of Art in 2021, as part of a new long-term strategic partnership with The University of Edinburgh. That will pay off in the long term but it was a big emotional wrench – for us and for our audiences – to leave our long-term home in Charlotte Square.

"We are always learning and evolving, listening to our stakeholders and re-evaluating our role as a literary festival."

We are always learning and evolving, listening to our stakeholders and re-evaluating our role as a literary festival. So, while we are maintaining the hybrid offer we developed last year, we are also responding to a strong desire for in-person events to return on a bigger scale. For that reason, we have added more theatres, as well as adding a new 750-seater theatre with lovely acoustics. Our aim is to bring back the buzz – and I'm sure we're going to achieve it.

What are the main challenges of creating an 'equal experience', and how does attendee feedback shape your approach?

There are many challenges in creating an equal experience. The important thing is listening to people from different backgrounds, with different experiences and perspectives. The Book Festival is an interactive experience, so it's vital that online audiences are treated as more than simply 'viewers' – they are participants. Equality of experience means continuing to understand how that interactivity can best be achieved. In our largest theatres, we are effectively creating TV sets with live studio audiences. But those in-person audiences can't be made to feel like second-class viewers, either.

How have authors and other guests responded to the hybrid experience?

We have been blown away by the support from audiences and authors to our new way of delivering a book festival. Countless audience members with chronic illnesses or anxieties have been in touch to tell me how our online offering opened up the Book Festival to them in ways they hadn't experienced before. And watching our online chatroom, it's been a joy to see people tuning in from Tennessee, Toronto, Singapore and Sydney; who knew we had such an international reach?

Can you quantify the positive impact a hybrid event has on the environment?

We have a clear commitment to being a net-zero festival by 2030. Our Green Team is working on the numbers and looking at comparators between the different festivals and their overall carbon footprints. But that is a long-term piece of work – and challenging, too. What we already know is that with more authors and audiences joining online, the environmental impact caused by travel is hugely reduced. Moving to a new site will reduce our emissions considerably, not least because we no longer need diesel generators for power. But the increased reliance on digital technology is not without environmental impact. And there's a more nuanced discussion about the possible net benefits of improving public understanding around the climate emergency. An in-person appearance by an expert might have more of an effect in the audience, even if the short-term carbon cost is greater by bringing them to Edinburgh.

"What we already know is that with more authors and audiences joining online, the environmental impact caused by travel is hugely reduced."

Is Edinburgh close to 'falling back in love again' with the idea of being a festival city?

I really don't think Edinburgh had fallen out of love with the idea of being a festival city. Which other city of half a million inhabitants has such a strong, globally recognised identity and sense of joyful purpose? And that's before you start adding up the financial benefit to the city.

2030

WE HAVE A CLEAR COMMITMENT TO BEING A NET-ZERO FESTIVAL BY 2030

But it's true that there have been some very legitimate complaints about how the festivals were being delivered in recent years. We must do better; citizens must feel more of a 'dividend' to make up for the inconveniences we cause. The urge to do better is why the Book Festival moved out of Charlotte Square: the potential for environmental damage to a cherished Georgian square was simply too great. Despite that, the evidence shows that Edinburgh citizens are overwhelmingly positive about the festivals and their cultural, financial, and reputational importance to the city. I realise people want us to adapt and improve, and it's our responsibility to listen.

What does the Book Festival mean to you?

For the past 12 or 13 years, it has been my life's mission to maintain the Book Festival's position as a world leader in its field – to make it an inspirational experience for everyone involved. One example is the beautiful partnership we've enjoyed with Walter Scott and Partners around the Frederick Hood Memorial Lecture. For more than a decade, we have paid tribute to a former employee of Walter Scott and Partners who lost his life in an avalanche – but that partnership has also helped the festival to bring inspiring speakers to a wide audience. This sort of partnership fills me with pride in my work.

"That partnership [with Walter Scott] has helped the festival to bring inspiring speakers to a wide audience."

When I think of the steadily growing audience demand, and the insatiable appetite of authors to take part, not to mention the loyal sponsors and supporters who have stuck with us through the hard times, I'm pretty sure we've been successful. But I also think of the staff team that has gone through such a traumatic period and emerged with solidarity and confidence. I think of the Book Festival as a 'community of thought' – a place where we can think together about the world we live in. I am sure that the festival plays a role in helping us understand our stewardship of the people and environment on this planet. It might sound idealistic, but I'm convinced the Book Festival's community of thought makes a small contribution towards forging a better world.

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Journal 5

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BRENDA LENAGHAN, FIGURES AND PARASOLS
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