# The RESEARCH JOURNAL

SUMMER 2025 | ISSUE 15

Healthcare's tech revolution

Adidas: Back in the game

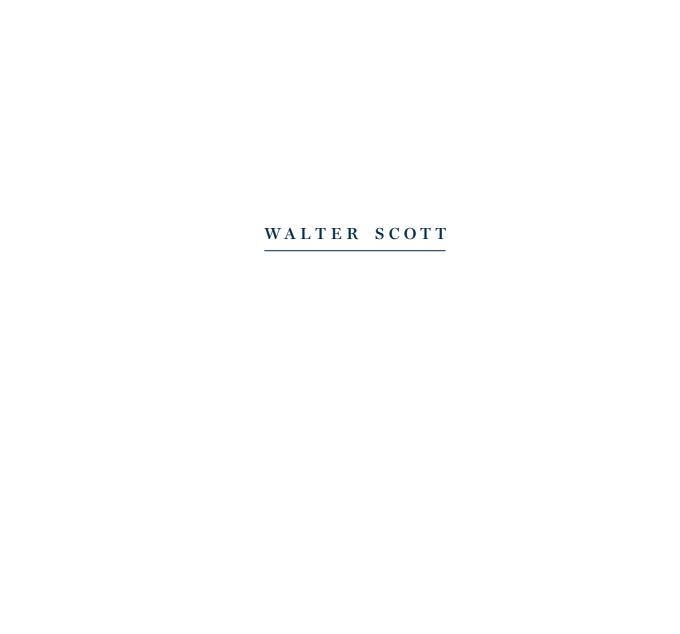
Thirsty semiconductors

China: An alternative view





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### Robert McAulay, Estate II

© Robert McAulay Photograph of artwork: © Antonia Reeve The artwork on the inside cover is by Scottish artist Robert McAulay. Robert lives and works in his home city of Glasgow. He is largely self-taught, having initially trained as an upholsterer before attending art college in the mid-1980s. Robert's paintings often depict urban spaces, whilst exploring the closeness of nature.

Walter Scott has been supporting emerging Scottish talent since 1988. In the same way that we believe that different perspectives within the team generate the best investment ideas, so we believe that our art collection should incorporate a wide range of work from an eclectic group of contemporary artists.

Our commitment to that community is reflected in our longstanding partnership with the Royal Scottish Academy and in particular our support of its annual 'New Contemporaries' exhibition that showcases the work of emerging artists from across Scotland's five main colleges of art and of architecture.

### Welcome



Regular readers will notice that we have made some changes to the 15th edition of our Research Journal, adding illustrations and infographics to provide a different take on the subjects explored. We hope you enjoy this new look!

With geopolitics in a state of such uncertainty, it is easy to become downbeat. But we hope the contents of this Journal can be a reminder that there is good reason for optimism. As long-term investors in some of the most ambitious companies around the world, our day-to-day work and our conversations with management

teams are focused on progress, growth and wealth creation.

In this edition we explore the ever-increasing role of technology in healthcare and consider the growing importance of industrial gases. We review the early steps, or perhaps more aptly strides, of Adidas CEO Bjørn Gulden.

We also introduce Investment Manager Max Skorniakov in our new 'Who's in your team' column. We go 'On the Road' in Switzerland with Investment Manager Ashley-Jane Kyle and we delve into our archives with a research note on Costco from 1984.

Despite its refreshed look, the ambition of the Journal remains deliberately unchanged. Research lies at the heart of our approach and through our Journal we aim to give you a sense of the subjects on our agenda.

We hope you enjoy reading this latest edition. As ever, we'd be happy to discuss any of the subjects covered, so please do get in touch.

Jane Henderson, Managing Director

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### Contributors



### Jane Henderson, Managing Director

Since starting at the firm as an investment analyst 30 years ago, Jane has had a range of investment, management, client service and governance responsibilities. She assumed her current role in 2010.



### Alan Lander, Head of Research

Over Alan's 19-year investment career at Walter Scott, he has championed stocks across all regions and many sectors. In recent years, he led a project into industrial technologies and has travelled across Asia.



### Des Armstrong, Investment Manager

Since joining the team in 2004, Des has had a particular interest in healthcare but, as befits the firm's global approach, he has also been responsible for investments in the consumer, energy and technology industries.



### Ashley-Jane Kyle, Investment Manager

Ashley-Jane started out as an investment analyst in 2017. She currently works in the EMEA team, having previously focused on companies in the Asia-Pacific region. She also mentors secondary school female pupils about finance roles.



### Tom Miedema, Investment Manager

Tom is responsible for the coordination of emerging markets research. Before joining the Investment team in 2007, he lived and worked in Taiwan. He follows the semiconductor industry closely and recently conducted extensive work on its supply chains.



### Fraser Fox, Investment Manager

Fraser is one of the longest-serving members of the team, arriving back in 2003. He has championed a geographically diverse range of stocks and travelled far and wide. Fraser has been on Walter Scott's Investment Executive since 2022.



Lucia Gibbard, Investment Manager

Lucia was originally an intern in 2016 and 2017, as part of a programme encouraging women to join the industry. She returned in 2023, having spent the intervening years working in sustainable and impact investing roles in London.



Katie Boyce, Investment Writer

Having joined Walter Scott in 2012 as a writer, Katie now also hosts the firm's Talking Research podcast. She previously worked at BBC News, primarily writing news and feature stories for the broadcaster's website.

### **External Contributors**

### Carrie Arnold

Carrie is an award-winning science and medical writer based in Virginia. She has written for The Atlantic, The New York Times, National Geographic and other publications.

### Ian McGugan

Ian is a reporter for The Globe and Mail and has been writing about investing, economics and business for more than 20 years. He has won three national magazine awards for his business and investing writing.

### **Stuart Codling**

Stuart is the author of 16 books. His latest book, McLaren Formula 1 Car by Car, was shortlisted for the Royal Automobile Club 2024 Motoring Book of the Year Award.

### Design

#### **Matt Saunders**

Experienced freelance illustrator based in London, whose work is rooted in creating fantastical calming atmospheres.

#### **Tom Haugomat**

Illustrator based in Paris, often inspired by nature, the outdoors and the rose-tinted spectacles of the past.

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Creative Director of Add Two, a specialist information design agency. He also teaches data visualisation.

### **Andrew Lyons**

France-based illustrator inspired by Franco-Belge comics. He also enjoys playing traditional Irish folk music on the mandolin.

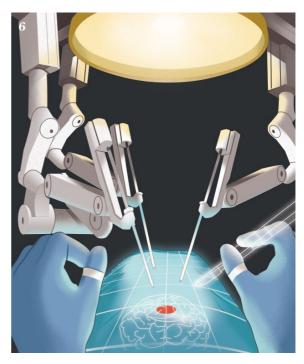
#### **Chris Watt**

An accomplished news photographer, Chris has covered the Gulf War, Ryder Cup and assignments across Africa, Asia and the Americas.

### **Katie Chisholm**

Founder of KCF Creative, a design agency. Katie studied graphic design at Duncan of Jordanstone College of Art & Design.

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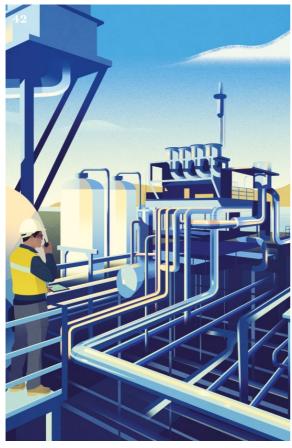
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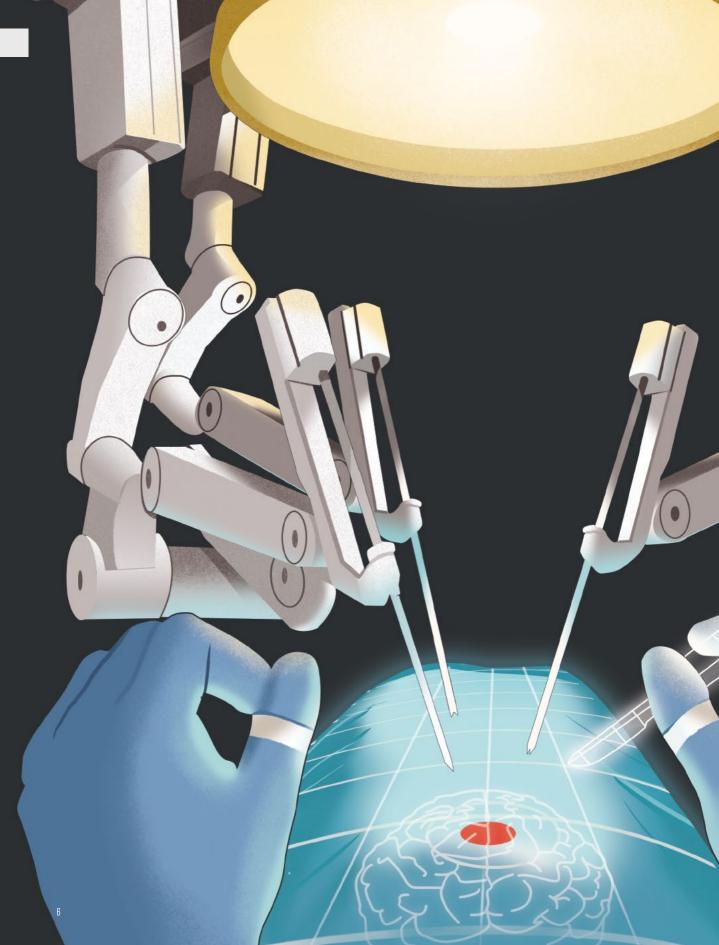


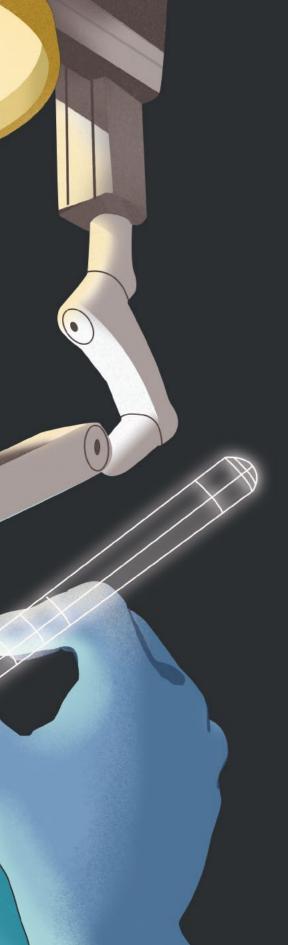




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# Healthcare's tech transformation

Pharma companies have no shortage of high-tech drugs and devices leaving their stamp on medicine. But balancing innovation and cost is challenging. Award-winning US health journalist Carrie Arnold investigates

Illustrations: Matt Saunders

wenty years ago, adults whose heart valves had dangerously narrowed - a condition called aortic stenosis - required open-heart surgery to replace the diseased valve. Cardiac surgeons needed to split the sternum in half, place the patient on a heart-lung machine and physically cut out the faulty valve before installing a prosthetic one and wiring the breastbone shut. The strategy required a week in hospital and carried risks that were often too great for frail older adults. The alternative was worse. Without replacement, the heart would lose its ability to pump blood, leading to heart failure and death.

## "We are dealing with extraordinary advances in medical innovation"

Building on developments in cardiac catheterisation, Edwards Lifesciences developed a series of prosthetic heart valves that can be inserted via the femoral artery, without the need for stitches or breaking the sternum.

We are dealing with extraordinary advances in medical innovation,

not just in heart surgery but across the board. Although healthcare systems have embraced many of these advances, they have struggled in their ability to monetise innovation in a way that benefits patients and payers alike. Precisely how medicine will solve this conundrum remains unclear, but value-based care and other new payment models may allow all this new technology to truly shine.

### Minimal incisions, maximal impact

Advances in surgical robotics are transforming major, invasive operations requiring lengthy hospital stays and months of recovery into routine, outpatient procedures. Intuitive Surgical's Da Vinci 5 robot allows surgeons to perform a range of gynaecological, bariatric, gastrointestinal and other surgeries through miniature incisions, while visualising patient anatomy in 3D at a special console. The company has also built on its quarter century of innovation with an AI-powered surgical 'assistant' that can monitor the procedure and offer real-time feedback. In 2024, Intuitive's robots carried out 2.7m operations, a rise of 17% compared with the previous year. Given that more than 300m surgical procedures are performed each year, and that 21m of those would benefit from minimally invasive options, Intuitive Surgical is poised to have a huge impact on both patient health and bottom lines.

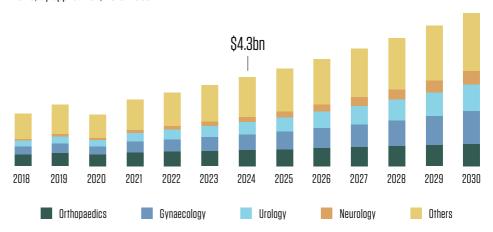
Stryker, a Michigan-based company that makes a range of medical implants and devices, has also developed several lines of surgical robots. An ageing population has created a steady increase in the number of people needing knee, hip and other joint replacements. Robotic-assisted operations are expensive. They cost an average of \$2,400 more than conventional procedures in 2024, according to a study in the Archives of Orthopaedic and Trauma Surgery. However, less invasive operations have allowed doctors to shift these procedures from more expensive hospital stays to outpatient ambulatory surgery centres. And robot-assisted knee replacements have fewer complications such as blood clots.

The technology revolution isn't just happening inside hospital walls. Sales of wearable medical devices such as microfluidic patches to analyse sweat and smart watches that can detect abnormal heart rhythms such as atrial fibrillation totalled \$45bn in 2024 and the figure is predicted to grow to \$152bn by 2029. Sales of continuous glucose meters have expanded to include those without diabetes as even apparently healthy adults have begun to use them to optimise their diet, exercise and health.

Historically low-tech items are also getting digital makeovers. Continuous positive airway pressure (CPAP) machines to treat sleep apnoea have formed the backbone of ResMed's \$34bn business. Recent investments have led to the development of technologies that sense when patients are inhaling or exhaling to tailor airway pressure to each patient's specific breathing patterns. These technologies not only make CPAP more comfortable, increasing patient usage, they also enable physicians to monitor treatment efficacy.

### Global surgical robot market

Size, by application, 2018-2030



Source: Grand View Research



Other innovations are happening behind the scenes. With the help of artificial intelligence programs that can predict the precise shape of proteins, such as AlphaFold and RoseTTA, drug developers can carefully create a molecule that will interact with its target and have the desired effect. The use of these models could potentially shave several years and millions of dollars off the cost to bring a drug to market. These precision therapeutics also mean that drug companies can identify the molecular basis of disease and divide patients into subgroups to test targeted treatments. Novel cancer drugs have paved the way in precision medicine; but pharma companies are exploring treatments for other diseases, such as gene therapies for inherited forms of blindness and neurodegenerative conditions such as spinal muscular atrophy and amyotrophic lateral sclerosis.

This ethos has also arrived in drug manufacturing. As drug companies hone their ability to target specific molecules, they will need to synthesise smaller amounts of a wider variety of drugs. The use of prefabricated modules or pods to be used as cleanrooms and manufacturing facilities is allowing pharma heavyweights such as BioNTech to scale up manufacturing of mRNA and other products quickly and easily. Modular manufacturing strategies are also proving promising for on-demand drug synthesis and finishing, as well as in low- and middle-income countries that currently lack facilities with good manufacturing practices.

### Paying the price of invention

The question facing the US healthcare system now, however, isn't whether innovation is possible but whether patients can afford it. In 2023, the Consumer Price Index rose by 4.1%, compared with a 7.5% rise in healthcare spending. In 2024, the US spent \$4.9trn or \$14,570 per person on healthcare. This is equivalent to 17.6% of GDP, according to National Health Expenditure Data, a government database. Technological innovation, combined with an ageing population experiencing multiple chronic conditions, is helping to drive this seemingly endless rise in healthcare spending.

A national push towards value-based care, in which payment to providers is tied to patient outcomes, may help the marketplace prioritise those innovations while simultaneously yielding long-term savings. GLP-1 drugs may be the poster child for this. Despite the high price tag for these drugs - out-of-pocket costs are upwards of \$1,000 per month they have the potential to forestall far more expensive complications such as diabetic ulcers and amputations, severe cardiovascular disease and kidney failure requiring dialysis. Whether value-based payments will be able to help healthcare find the sweet spot between innovation and cost savings remains to be seen, but there is no shortage of ideas on how to use technology to cut costs. The ideas that take hold in the next few years are likely to leave their imprint on medicine for decades to come.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of Walter Scott.







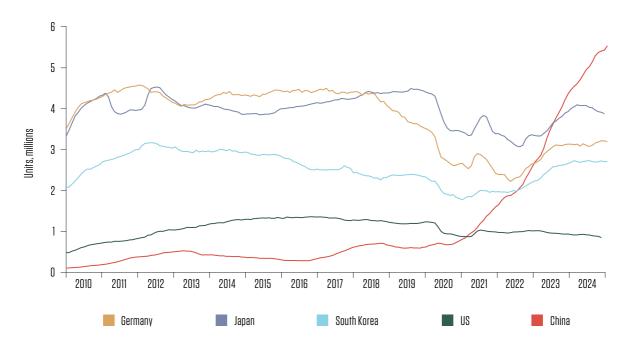
Illustration: Tom Haugomat

iewed from the perspective of many in the West, the drip feed of negative commentary about China has been relentless in recent years. Yet the world's second-largest economy still managed to grow at a 5% clip in 2024 while its massive trade surplus has continued to increase. Compounding concerns has been the recent escalation in trade hostilities between the US and China.

Among a number of voices proclaiming a bullish view on China is Louis-Vincent Gave, CEO of Gavekal, a financial research consultancy based in Hong Kong and Beijing. Louis, a former officer in the French army and investment banker, co-founded Gavekal in 1998. We have enjoyed regular conversations with Louis and his colleagues to hear their views and test our own thinking. I recently caught up with Louis to quiz him on his contrarian outlook.

### China has emerged from the pandemic as an auto export powerhouse

Exports of passenger cars

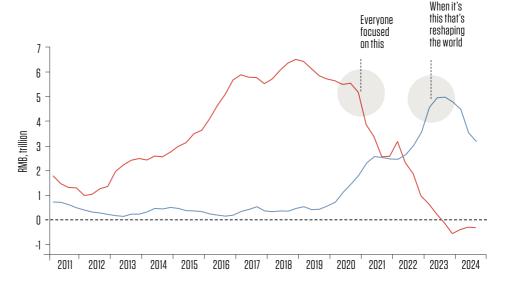


Source: Gavekal Dragonomics/Macrobond

### China's banks have dramatically cut back on real-estate lending

China, year-over-year increase in outstanding loans





Source: Gavekal Dragonomics/Macrobond

**Alan Lander:** What's behind your positive view on China's prospects?

Louis-Vincent Gave: I think people's views on China are massively skewed by how much time they've spent there. Their opinion that 'China is circling the drain' and is 'uninvestable' is arguably a function of the last time they were there, and that's usually before the Covid-19 lockdowns and the Ukraine war. The economic transformation in the past five years has been massive, and it's hitting our shores.

Today, China is the biggest exporter of automobiles and industrial robots in the world. It makes more solar

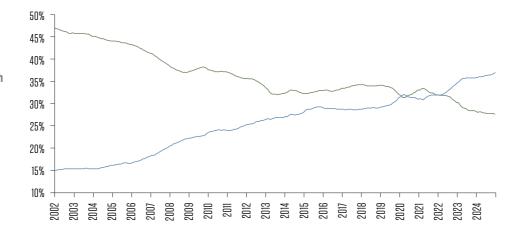
panels than the rest of the world combined and is an exporter of nuclear power plants. China graduates more engineers than the rest of the world combined. The future is in China.

**AL:** But one of the concerns is that China is creating huge industrial overcapacity, so isn't that a risk to its economy in the future?

LVG: There is no doubt that overcapacity is being created, and this is deflationary. There will be winners and losers in each industry, which suggests an accumulation of bad loans. But this is the way Chinese capitalism works. It's ultimately bad for the banks, but China maintains

### China exports more to the Global South than it does to G7 members

- % of China annualised exports to G7
- % of China annualised exports to Global South



Source: CEIC Data, China General Administration of Customs

capital controls, so problems are internalised and it all gets funded through financial repression.

It's a bit like The Hunger Games, where strong winners eventually emerge. Think of the quality, value and competitiveness of Chinese electric vehicles. And as Volkswagen can testify to, given its struggles with competition, these are global Hunger Games.

And the West has prompted this. The imposition of the semiconductor embargo by the US in 2018 triggered a move to self-sufficiency in every industrial sector. Rather like a French general fighting the Second World War by looking back at the First, the West

missed the switch as commentators focused on the problems of the property market. The property-driven growth model was discarded with bank lending directed towards the building of advanced industries.

**AL:** In the context of 'America First' and growing fears in Europe that it's being undermined by China, how will this dynamic of Chinese industrial competitiveness play out in a more protectionist world?

**LVG:** Firstly, there's been a steady shift in trade that now sees the country exporting more to emerging markets than it does to developed countries, and these exports are growing very fast.

Furthermore, these are high-value exports to EM countries – trains, power plants and automobiles – while increasingly the goods sold to developed markets are low value-added.

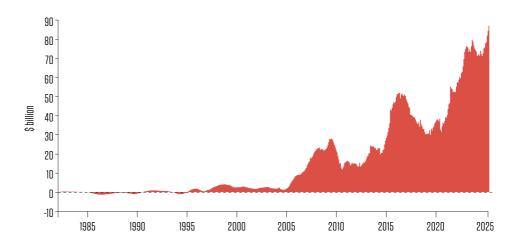
Regarding tariffs, think of the amount of consumer goods, such as iPhones, that are imported from China. It is Apple and/or the American consumer, not China, that will pay any tariffs. In the 2024 US election, the swing to the Republicans came from voters who earn less than \$50,000 after a campaign that was fought over inflation, so President Trump's ability to fight a long trade war that most Americans do not want may be limited.

The other point is that Apple has been trying for 10 years to source away from China, but is finding it extremely tough. This is true across many industries. Granted, that low-value products like Tupperware will not likely be made in China in the future, but China recognises that comparative advantages shift over time, hence the move up the value-added ladder.

More importantly, given the nature of the Chinese political system, the government can engage in economic dirigisme and 'encourage' some of the country's top companies to invest in the US, which would dovetail well with President Trump's invest in America

### China's trade surplus is ballooning

12-months moving average



Source: Gavekal Dragonomics/Macrobond

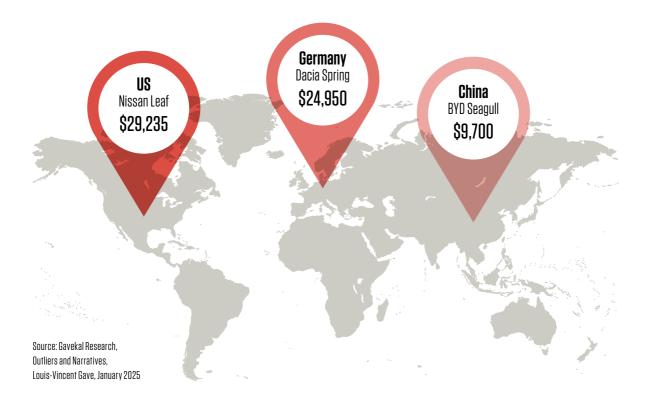
strategy. This opens up a potential future path for a US-China compromise.

**AL:** China has accumulated a massive trade surplus, and a lot of cash is held overseas. Why isn't it flowing back into the country? This would help the domestic economy, right?

**LVG:** Indeed, with that kind of trade surplus, this money should be repatriated. This would push up the exchange rate and perhaps support asset prices, which in turn would help

hitherto subdued consumer spending. Instead, entrepreneurs have been buying gold, or sticking money in Hong Kong bank deposits. It's symptomatic of a loss of confidence among businesses and, given uncertainty over the government's interventionist policies in various sectors and concerns over tariffs, this is understandable. This lack of confidence is also evident in consumer behaviour, where the puncturing of the property market has dampened their spirits. It's not about lack of money.

### Cheap and competitive: Electric vehicles in different markets



So now the government is focused on bolstering consumption. Hence the recent moves to stabilise the property market. Mortgage rates have been slashed and the monetary taps are firmly in the 'on' position.

"At the peak of the bubble the land value of the Imperial Palace in Tokyo was greater than that of the whole of California"

**AL:** You often hear that China will suffer from Japanification, owing to demographic headwinds, a real estate bust and the associated deflation, with the prospect of its own 'lost decade' of growth looming large. What's your view?

LVG: It's different for a variety of reasons. Firstly, the sheer scale of the asset bubble in Japan was massive. There's the famous statistic that at the peak of the bubble the land value of the Imperial Palace in Tokyo was greater than that of the whole of California. Real estate had impregnated everything, with the equity market valuing companies on the land they

held. Secondly, Japan tightened fiscal policy to rein in the budget deficit. China is loosening it.

Thirdly, Japan became super-uncompetitive. It became so expensive in terms of prices and factors of production, not helped by a strong yen. China is cheap from many angles. The reason China enjoys such a huge trade balance is that it remains competitive in a way that Japan no longer was in the wake of the puncturing of its asset bubble.

Also, Japanese banks effectively went bust and stopped lending. Even zero interest rates didn't alter their behaviour. This is not the case in China, where banks have government support and remain very accommodating.

We're also in a different place in terms of their respective stock markets. In 1989, Japan was 45% of the MSCI World Index and it was 18% of global GDP. When it all went wrong, investors spent the next 15 years selling it. Now Japan is around 4% of global GDP and about 6% of the index.

By comparison, China is around 3% of the MSCI World Index and 17% of global GDP.

Nobody owns China. ■

The views and opinions expressed in this article are those of the interviewee and do not necessarily reflect the position of Walter Scott.

# After Yeezy – reviving Adidas

CEO **Bjørn Gulden** has overseen an impressive turnaround in the fortunes of Adidas since taking the helm in 2023. Investment Manager **Des Armstrong** looks at what had gone wrong at Europe's leading sports apparel business and how Gulden put things right

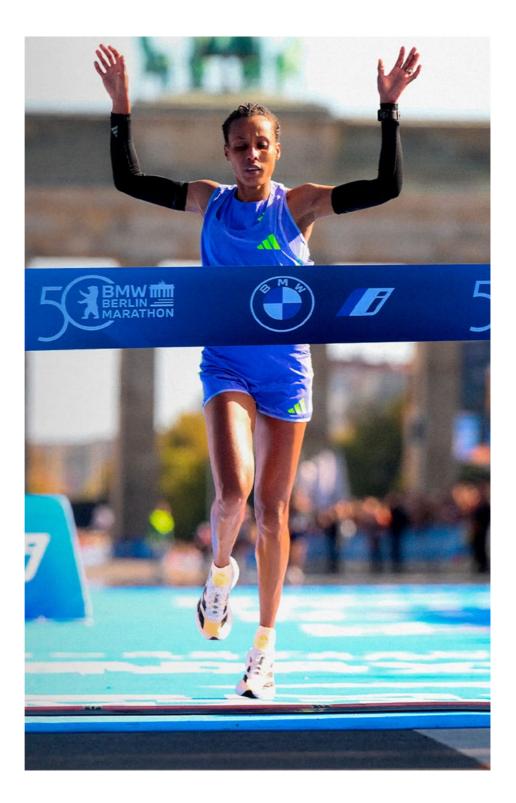
anye West's Yeezy collaboration with Adidas was celebrated as "one of the great retail stories of the century" by Forbes magazine in 2020. At the time, it wasn't hard to see why. The tie-up between the self-styled 'Lord of Rap' and the iconic German sportswear giant was estimated to be generating north of \$1bn in annual revenues. Not bad for a collaboration that had launched its first sneaker only five years previously.

Just two years later, however, Adidas would pull the plug on Yeezy after a string of antisemitic outbursts by West. The timing of the incident was unfortunate. On its own, the loss of an asset responsible for an estimated 40% of profits would present a challenge for any company. But Yeezy's demise came at a time when Adidas was already under pressure from Covid-19, Russia's invasion of Ukraine and slowing sales in China.

Compounding these woes were a troubled strategic pivot to a direct-to-consumer business model and a huge inventory overhang that necessitated heavy discounting. Fighting fires on a number of fronts, Adidas was struggling to keep pace with the competition, losing market share to both established rivals and a slew of up-and-coming challengers.

Fingers of blame were pointed at CEO Kasper Rørsted, whose 'Own the Game' strategy was thought to place too much emphasis on technology and digital, and not enough on the core competencies of product design and innovation. Before 2022 was out, Adidas would announce Rørsted's departure and task Puma CEO Bjørn Gulden with reviving the brand's fortunes.

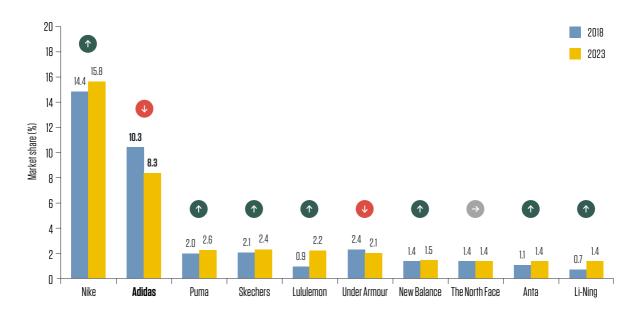
Gulden, a former professional footballer in Germany and his native Norway, came with impeccable credentials. At Puma, he had orchestrated an impressive turnaround in the company's fortunes, reinvigorating a tired brand and establishing it as the third largest footwear player globally. He was also no stranger to the Three Stripes,



Tigist Ketema winning the BMW Berlin-Marathon 2024 running a record time of 2:16:07 in the Adidas Adizero © adidas

### Not owning the game

Adidas was underperforming prior to Gulden's appointment



Source: Euromonitor

having worked at Adidas for several years in the 1990s. The appointment was warmly received by investors, with the share price sharply higher on the news.

### The 'Gulden Opportunity'

Soon after Gulden took the reins at Adidas, I visited the company's HQ in the small Bavarian town of Herzogenaurach to learn more about his plans. True to his straight-talking reputation, the new CEO was nothing if not forthright.

Adidas, Gulden told me, had lost its way under his predecessor. Product and marketing people had been sidelined, usurped by an army of spreadsheet-wielding strategists and consultants intent on turning the company into a tech business. In the rush to embrace a direct-to-consumer model, management had forgotten the importance of the wholesale market – retailers, frustrated by a lack of access to Adidas stock, often turned their attention to other brands.

Bureaucracy and centralised decision making, meanwhile, had suffocated innovation. To emphasise his point, Gulden recalled being greeted by a presentation deck with no fewer than 341 KPIs on his first day in the job. Gulden's remedy was as simple as his diagnosis was brutal. On his watch, product would once again be king and the business would rebuild its relationship with retailers. Decision making would be devolved, replacing top-down directives with a more agile, bottom-up approach that prioritised local product development.

On this final point, he was adamant. For Adidas to thrive, it would need to offer more local products for local markets. To do so successfully, the company's creative impulse could no longer just come from Germany; China, India, Japan and the US would have to become design hubs. This decentralisation would come with a cost, but it would be much less costly

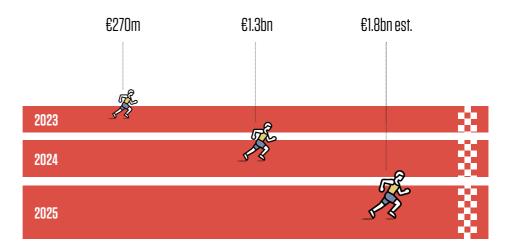
than designing products that people didn't want.

If he had doubts about his ability to engineer the change Adidas required, Gulden didn't show them. There were two key factors in his favour, he argued. First, the business had the talent to be successful. When he took the job, he didn't bring a team with him; he knew there were good people already at Adidas. His job was to empower the right people and to remove the obstacles and bureaucracy that were stopping them from doing their best work.

The other lever he could pull on was a world-famous roster of heritage franchises. Scaling up production

### The reboot gathers momentum

Adidas operating profit



Source: Adidas 2025

Bjørn Gulden, Chief Executive Officer of Adidas © adidas



of the iconic Samba, Gazelle, Campus and Spezial lines would maximise exposure to the global trend for retro, lifestyle trainers and build some much-needed early momentum as Adidas embarked on its turnaround journey. I left Herzogenaurach under no illusions about the scale of the challenge facing Gulden. Even putting to one side the long-term job of reinvigorating an ailing giant, there were onerous near-term hurdles to overcome, perhaps most immediately

a huge pile of excess inventory. But he had struck a confident tone, laying out a persuasive case for his proposed reset and asserting his belief in Adidas' long-term potential.

### "The decision to pivot back to classic models has paid off handsomely"

### The follow through

Eighteen months on from our meeting, Gulden's efforts have succeeded beyond most people's expectations. The decision to pivot back to classic models has paid off handsomely. Demand for Sambas and Gazelles has been such that new launches have been held back to maintain their appeal. (Even former UK prime minister Rishi Sunak was pictured in a pair of the former, much to the dismay of younger devotees.)

Relationships with key retailers have been revitalised, with Adidas product taking up more shelf space and customer attention. Crucially, the inventory stockpile has also been addressed and now sits at a much healthier level. The financial implications of all of this were laid bare in an excellent set of 2024 results. Revenues for the full year were up 12% at €23.7bn, with sales excluding Yeezy rising 13% year on year. Annual operating profits rose from €270m in 2023 to €1.3bn, while margins also improved.

What of the 'local product for local markets' game plan? In late 2024, I met a senior representative of Adidas who praised its impact on the important China market. The business has been fostering local connections by sponsoring Chinese sports teams and athletes. Increasingly, production and design are moving 'onshore', making the company more responsive to domestic trends. While still early days, the strategy appears to be bearing fruit, with sales growing consistently during 2024.

### Are we there vet?

While declaring himself "very pleased" with 2024's results, Gulden tempered enthusiasm by stating that "we are not yet where we want to be long term". So, as the Adidas turnaround gathers momentum, what does the next step in the journey look like?

Most pressingly, the business will have to contend with a new era of trade tariffs. Given it has significant operations in countries such as Cambodia and Vietnam, higher import duties are an unwelcome development. However, management is confident that the Adidas supply chain has the depth, flexibility and quality to weather the tariff storm, calling it "a challenge, not a crisis".

Beyond geopolitical concerns, the business has to broaden and deepen its product portfolio beyond the lifestyle dynamic. Fashions ebb and flow, and Sambas and Gazelles can't remain on-trend indefinitely. However, the 'halo effect' from the success of its lifestyle franchises is now benefiting products in the 'performance' categories of running, tennis and golf.

### "Excellent long-term growth potential at times let down by sub-par execution"

Replicating the 'brand heat' of the lifestyle business in the performance division would go a long way to realising Gulden's ambition of being "the best sports company in the world". There are plans to leverage the popularity of the Adizero Adios Pro Evo 1 running shoe, moving into other price points and targeting the comfort and value sections of the running market.

Another area of focus is basketball, where Nike has long been dominant. Gulden speaks confidently about the prospects for the signature shoes of star players James Harden, Anthony Edwards and Damian Lillard. Further inroads into basketball and the wider US market will be a key determinant of future success.

As Adidas moves into year three of its reboot, there is much to play for. The annual growth of the sports apparel industry is expected to compound at 6-7% over the next few years, with footwear growing slightly more quickly. Having put in place the operational infrastructure to support €30bn of revenues, the business has the capacity to capture a large chunk of this growth. Success now comes down to execution.

Throughout its history, Adidas has been a brand with excellent long-term growth potential at times let down by sub-par execution. There are signs that this is changing, however. With Gulden and a refreshed management team at the helm, the business is in a far better position than seemed possible two years ago. Can it maintain its current momentum? There's more work to be done, but to invert a famous Adidas marketing slogan, nothing is impossible.

### Samba: Evolution of an icon

The first shoe to bear the brand name Adidas, the Samba holds a special place in the history of the German sportswear giant

In 1949, the founder of Adidas, Adi Dassler, was searching for a shoe that would provide footballers with greater traction on icy pitches. His solution was a chunky mid-top boot with three cut-out cups in the sole for extra suction – the Samba was born. In the eight decades since, Dassler's brainchild has moved far beyond its sporting roots to become one of the world's most iconic shoes, selling an estimated 35m pairs in the process.

The prototype Samba bore little resemblance to the minimalist aesthetic of today's fashion staple. The sleek silhouette we're familiar with didn't arrive until 1972. Sitting lower on the ankle, the new design won popularity as both an indoor sports shoe and an everyday style item.

Today, with the line between fashion and sports apparel ever more blurred, the Samba wearer is as likely to be found strolling along Bond Street or Fifth Avenue as competing on an indoor court. Collaborations with high-profile designers have succeeded in keeping the shoe fresh and relevant, while paying due homage to its timeless appeal. Fashion *bona fides* have been further cemented by a rollcall of celebrity fans, from Kendall Jenner and Jennifer Lawrence to Rihanna and Pharrell Williams.

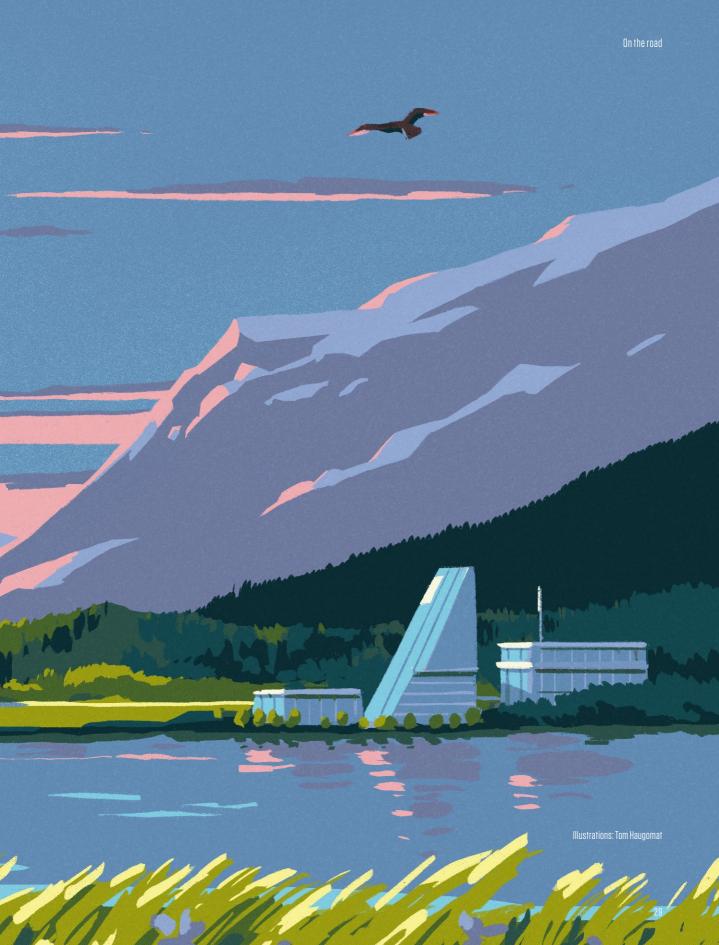
More than 75 years since making its first appearance, the Samba is as popular as it's ever been. Here's to the next 35m pairs!





Switzerland is renowned for its luxury watches, private banks and pharma giants. But there's much more to discover. Investment Manager Ashley-Jane Kyle met some of the lesser-known global businesses driving innovation from unexpected locations







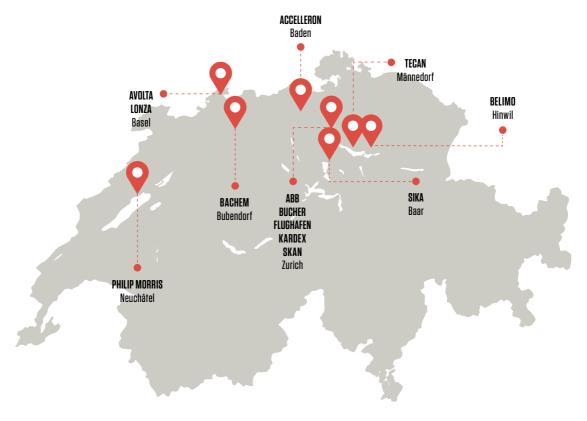
he lakeside village of Männedorf, surrounded by woodland and set beneath snow-capped mountains, is home to one of the most advanced diagnostics firms in the world. Tecan supplies laboratory automation products to life sciences and diagnostics businesses around the world. Taking the train alongside Lake Zurich to get there, with the sunshine glistening on the water, my colleague Jay McLeod and I agreed that its employees have a particularly enviable commute to work.

Meeting the management team, we heard about some of the long-term tailwinds driving growth for Tecan. For example, in next-generation gene sequencing, there are over 100 preparation steps needed to decode DNA or RNA sequences, a process that would be nearly impossible to scale without lab automation. This technology enables scientists to identify genetic mutations and diagnose disorders with speed and accuracy.

One of Tecan's most interesting technologies is its phase separator, which can isolate plasma from a patient's blood. It has applications within liquid biopsy, plasma collection banks, biobanks and mass spectrometry. The machine can detect various liquids within a sample without using cameras, instead using pressure sensors which distinguish changes in viscosity within a sample. The device is fully automated and does not touch the cells in the sample because of the pressure-sensing technology. Clinicians can regulate the pressure and sensitivity of the machine easily through Tecan's software. Liquid biopsy won't be a replacement for tissue tests, but the technology is growing rapidly and has a lot of applications for the monitoring of patients diagnosed with cancer.

Given Switzerland's strong pharmaceutical heritage, it is no surprise that Tecan isn't the only business with a critical position in the healthcare supply chain. These companies, many of them known as contract development and manufacturing organisations (CDMOs), offer outsourcing services to global pharmaceutical companies throughout the lifecycle of a drug, from development and small-scale production for clinical trials to commercial-scale manufacturing.

Like Tecan, Bachem is based in a small unassuming town, Bubendorf. It is one of the world's leading suppliers of peptides, the active ingredient in diabetes and anti-obesity GLP-1 drugs – with a 25% market share. As GLP-1



Companies visited during Switzerland research trip

production attempts to catch up with demand, the key drugmakers are scaling up significantly. The market opportunity for Bachem is tremendous and it doesn't need to pick the winning pharmaceutical company to do well, it just needs to continue supplying its many customers while spreading its bets.

Similarly, the upside to being a CDMO is that, unlike the drug companies producing the GLP-1s, Bachem has no patent cliff. That said, there are several key questions around how successful the company will be in scaling its capacity and how it would fund the long-term expansion required.

Also within the GLP-1 space, SKAN is another inconspicuous business that is integral to the growth of these drugs. It is a leading manufacturer of aseptic isolator solutions for almost all large biopharmaceutical companies globally. These isolators are critical for the filling of vials and syringes for injectable drugs. The human body has natural defence mechanisms protecting it against contamination of oral drugs, but not injectables. The isolators produce an environment that is 1,000 times cleaner than clean rooms.

SKAN's future growth is underpinned by the healthcare industry's trend towards injectables and protein-based drugs, which can't be sterilised by heating without being denatured (losing their structure). It should be a clear beneficiary of rising GLP-1 popularity so long as injectable variants continue to grow, and, as with the rest of the GLP-1 story, supply is constrained. The entire industry can produce only a limited amount of isolators per year. SKAN, along with competitor Getinge, accounts for more than 50% of this supply.

## "Lonza did not start out as a healthcare business"

Lonza, headquartered in Switzerland's healthcare heartland of Basel, is the world's leading CDMO. It also plays to another powerful long-term growth trend – biologics. These medications, made from living organisms such as bacteria, yeast or mammalian tissue and cells, are especially complex and costly to develop and manufacture. The global market for biologic drugs was estimated at \$413bn in 2025 and is expected to grow at a low-double-digit rate.

What makes Lonza unique among CDMOs is its combination of a broad service offering, proprietary technologies and global manufacturing footprint.

Customers typically engage with Lonza throughout the entire lifecycle of a product from development to commercial launch. This means that the early-stage product pipeline provides excellent visibility of future growth in commercial manufacturing, which represents the bulk of Lonza's revenues.

Interestingly, Lonza did not start out as a healthcare business. In the late 19th century, it was an electric utility provider which diversified into a complex industrial conglomerate. It was not until the 1980s and 1990s that it turned its hand to the sector it now dominates.

We also met some interesting businesses in the industrial sector. One of the most memorable was Belimo, which makes components, control valves and sensors for heating, ventilation and air conditioning in buildings. Its products can be found installed in the White House, the Empire State Building and the world's tallest building, the Burj Khalifa in the United Arab Emirates.

We had a tour of Belimo's largest factory, which is home to half of its global workforce. What really stood out was the manufacturing line, which felt more like a cavernous open-plan office than a factory floor and whose workforce was almost entirely female because of the fiddly assembly involved. There was however one fully automated line with robots which cost around \$1.25m and could reportedly replace 20 people. In time, management hopes to roll out these robotic lines more widely.



Accelleron is a world leader in turbochargers which weigh on average 20-30 tonnes

Tucked away in the town of Baden, more famous for its mineral hot springs, is the headquarters of Accelleron. Spun out of the global electrification and automation engineering business ABB in 2022, it is a world leader in designing and manufacturing turbochargers for medium to low-speed engines. Over 50% of sales go to the marine industry and Accelleron plays a crucial role helping ships to go faster with fewer emissions.

In contrast to the intricate work we witnessed at Belimo, these turbochargers weigh an average of 20-30 tonnes – roughly the same size as an adult male humpback whale. Witnessing the sheer scale of these industrial operations first-hand can give you a sense of what a business does in a way that no amount of reading company reports ever will.

While our visit was somewhat whistle-stop – we saw 13 companies in five days – those that we met certainly exemplified that Swiss skill for being at the forefront of their industries through innovation, precision and quality. They proved that world-class businesses don't always emerge from sprawling cities. Perhaps that is the power of the fresh Alpine air.

Thirsty work

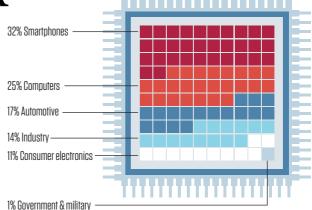
The global semiconductor market

#### Semiconductors are everywhere

There are trillions of semiconductors driving almost all electronic goods; without them, the modern world simply wouldn't work.

What's more, the transistors within these complex structures are minuscule – 10,000 times finer than a human hair.

Investment Manager Tom Miedema investigates the ubiquitous chip.



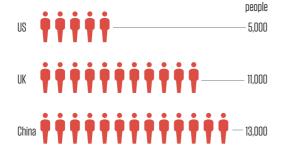
#### They're microscopic, but making them uses a lot of water

The average semiconductor facility uses

38,000,000

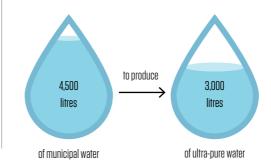
litres of water a day

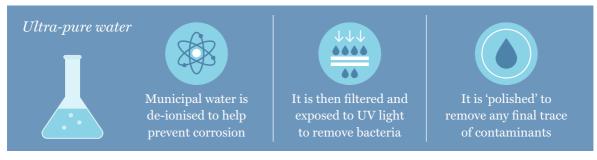
That's enough to provide water for



Silicon wafers are subjected to cycles of etching to build up circuit patterns. After each cycle they are rinsed with ultra-pure water.

A single silicon wafer can need up to

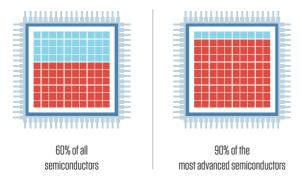




Sources: Semiconductor Industry Association Factbook 2024, World Economic Forum, tsmc.com, TSMC Sustainability Report 2023, nature.com, Taiwan Central Weather Administration, Water Footprint Network

### Made in Taiwan

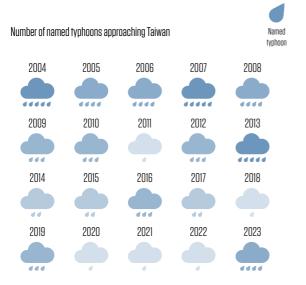
Taiwan is the home of semiconductor manufacturing



But Taiwan is already subject to water stress

It relies on rainfall for most of its water, and up to 30% of that comes from typhoons.

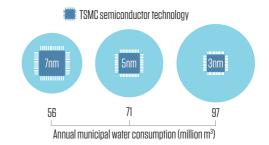
And the frequency of typhoons is reducing.



## Made by TSMC

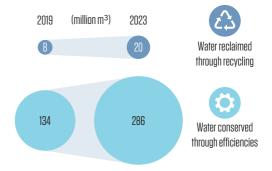
Semiconductors are getting thirstier

The smaller and more complex chips become, the more water intensive the manufacturing process is, with more cycles of etching and rinsing. TSMC is the leading Taiwanese manufacturer of advanced semiconductors. As its technologies advance, its water consumption grows.



What is TSMC doing about its water use?

TSMC aims for a 30% reduction in its water consumption and to reclaim over 60% of its water by 2030. It is involved in developing water reclamation technologies and the construction of desalination plants.



The semiconductor is one of the world's most technologically advanced products, and is integral to the global economy. Yet its future relies on thinking intelligently and creatively about one of our most fundamental resources: water.

## In conversation with: Hans-Olav Høidahl

From his base in Oslo, **Hans-Olav Høidahl** oversees Alimentation Couche-Tard's global electric vehicle strategy. He talks to Investment Manager **Fraser Fox** about what the company has learnt from Norway's EV revolution and its plans for Europe and North America

earning' might be the word that crops up most frequently in conversation with Couche-Tard's Hans-Olav Høidahl. The Norwegian repeatedly stresses the importance of learning from others to the success of Alimentation Couche-Tard, the Quebec-based operator of convenience stores and fuel forecourts, and owner of the Circle K brand.

It's something of which he has been conscious since 2012, when Couche-Tard acquired his then employer Statoil Fuel & Retail, at the time Scandinavia's leading fuel retailer. Reflecting on that period, he recalls being struck by the collaborative approach of his new company.

"They didn't send over lots of North Americans to run the Statoil business. They set high standards but they trusted us. Monsieur Bouchard [Alain Bouchard, Couche-Tard's co-founder and chairman] always emphasised the importance of humility and of both sides learning from each other and sharing experiences. The Couche-Tard way wasn't necessarily assumed to be the right way."

When I ask about Statoil's biggest lesson from the acquisition, Høidahl doesn't hesitate. "They gave us speed," he says. "With hindsight, Statoil was too slow. We had lots of smart people thinking a lot about strategy and risk, and how not to make mistakes. Couche-Tard taught us to act faster."

Merchandising was another area where the European business benefited, he says. "We sent people over to study their approach and to think about what we could implement back home." The flow of ideas wasn't one-way, however: "We had a better food offering, which showed up in a significantly higher percentage of food-related in-store sales."

#### The Norway laboratory

The purchase of Statoil Fuel & Retail would provide Couche-Tard with another valuable opportunity to learn, albeit one that few could have foreseen at the time. Thanks





2025 opening of Circle K's largest EV charging hub in Järna, Sweden, with 26 ultra-fast chargers © Couche-Tard

to generous government subsidies and tax incentives, Norway was on the cusp of an electric vehicle (EV) revolution.

In 2012, EVs accounted for a mere 3% of Norwegian car sales. Just over a decade later, that figure had jumped to 90%. As the only global mobility and convenience retailer with an on-the-ground presence in

the country, Couche-Tard had a ringside view of this remarkable transformation.

To help it understand the consumption and charging habits of EV drivers, Couche-Tard launched the 'Norway EV Lab' in 2018. Trialling new concepts and technology, the team working in the Lab was able to build and test

a comprehensive EV strategy, stealing a march on global competitors.

"It was really important that we developed our own model, rather than buy in something off the shelf," recalls Høidahl. "It meant more upfront costs at the beginning, but in terms of long-term implementation and scalability it's been the right thing to do."

"In 2012, EVs accounted for a mere 3% of Norwegian car sales. Just over a decade later, that figure had jumped to 90%"

Developing a proprietary model also meant the business could adapt its strategy to what it learnt along the way. "In the beginning, we perhaps focused heavily on highway stores and the travelling customer," he says. "But we soon discovered that many of our best performing EV locations were actually in the city environs of Oslo. Plumbers, electricians, taxi drivers; people driving around the city who needed a charger during the

day and wanted to combine that with somewhere that offered a good lunch and good facilities.

"We also started to see more charging happening in transit. Originally, we expected around 15% of charging to happen in public areas and the rest to happen at home. Long-term, industry projections suggest that figure could reach at least 25%. It might be higher if you take into account the average charge speed."

More EV customers on the forecourt are obviously good news for Couche-Tard but I'm also interested to know how the economics of EV charging stack up for a company that has always been highly focused on generating strong financial returns.

"That's not something you can shy away from," says Høidahl. "But what we've seen is that EV customers are more likely to come in-store and that, when they do, they spend more. The margins on charging are also good and we have a healthy return on investment on our chargers at present."

#### **European expansion**

Couche-Tard is now implementing its EV strategy in other markets. "We've taken it into Denmark and Sweden, where we've just opened a new flagship service station in Järna, southwest of Stockholm," Høidahl says. "It's Circle K's largest charging location globally, with 26 ultra-fast charging points on a 30,000 square metre site."

The next step is to take the model into Germany and the Benelux countries (Belgium, the Netherlands and Luxembourg), where Couche-Tard operates more than 2,000 service stations.

Do different market dynamics mean having to adjust your approach by country? "What might be different is the pricing model, whether that's because of the regulatory structure of the market or relationships with electricity providers," he replies.

"This ability to marry charging and convenience is perhaps Couche-Tard's key competitive advantage"

"Ultimately, however, customer needs are the same everywhere. They want the location to be safe, they want to know where the chargers are, that they're available and there are good payment solutions. They want good facilities, a varied food and beverage offer, clean restrooms and free Wi-Fi."

This ability to marry charging and convenience is perhaps Couche-Tard's

key competitive advantage. "All of the elements we can offer as a convenience retailer and forecourt operator, many of our competitors, the electricity utilities and the quick-service restaurants for example, can't," says Høidahl. "I think this puts us in a position to win in this market."

#### What next for the US?

Discussion of the European rollout leads us to Couche-Tard's strategy in the US, where EV adoption lags northern European levels by a considerable distance. I ask Høidahl how the company will approach investment in a market where adoption is low and policy support uneven.

"If I think about the situation in the US from a long-term perspective, then I think the underlying megatrend towards electrification will continue," he says. "There are also cheaper models coming to the market, which will enable more people to own an EV. But I do expect adoption to slow for a while and our approach will have to reflect that."

He emphasises the need for vigilance. "We need to ask if we want to invest in an EV charger that gets utilised a few times a day or to wait for a couple of years until the utilisation rate is much higher. We need to be very careful not to make imprudent investments." Music to an equity investor's ears!

The number one question I've been asked in my seven years as stock champion for Couche-Tard relates to EVs and the mobility transition. In many ways that's understandable



Food and beverage options in a Circle K service station © Couche-Tard

but it also risks obscuring the fact that traditional fuel retailing is still a huge driver of the company's earnings.

"I can promise you we'll never lose sight of the importance of fuel," says Høidahl. "We're very proud of our offering. We continue to improve our forecourts and there are still lots of opportunities in this space. We want to sell the last drop of fuel in the market but we also want to be part of the EV solution."

This feels like a fitting note on which to end our conversation: a restatement of Couche-Tard's commitment to its long-established fuel proposition as well as to the burgeoning EV market. Both will offer opportunities for many years to come and few companies are better placed to capture them.

The views and opinions expressed in this article are those of the interviewee and do not necessarily reflect the position of Walter Scott.



## Money from thin air

Invisible cogs that make the world go round. Noted Canadian financial journalist **Ian McGugan** quizzes Investment Manager **Lindsay Scott** about the critical role of the industrial gas giants

iven investors' fascination with all things AI and tech, it's easy to overlook a couple of unsung heroes that generate impressive profits, year after year, out of thin air.

Linde plc and Air Liquide SA dominate the global market for industrial gases such as oxygen, nitrogen, argon and hydrogen, yet rarely appear in headlines or stir discussion among investors.

There are good reasons for that. "They're so incredibly reliable and consistent," says Investment Manager Lindsay Scott – and, yes, a bit boring too, she acknowledges.

However, their humdrum nature is precisely what makes them interesting companies, she says. Despite a distinct lack of glamour, Linde and Air Liquide are essential cogs in the global economy: "If they ceased production, the whole world would know about it."

That is no exaggeration. Oxygen is used in every hospital as well as in steel mills and wastewater treatment. Nitrogen is a key component of many fertilisers and is important in food storage as well as in the production of

most electronic components, including computer chips. Argon can be found in electric light bulbs and thermal windows and also plays an essential role in welding. Hydrogen has been touted as a key energy source of the future.

Producing gases like this on a commercial scale is a daunting task. While oxygen, nitrogen and argon are all found in the air we breathe, the business of separating them from the atmosphere demands a formidable level of technical expertise as well as massive investments in giant air separation units.

Then there is the not-so-simple matter of actually getting gases to customers. Delivery means building huge pipelines, filling tanker trucks or transporting heavy containers of high-pressure gas.

So why would investors choose to put their money into such a demanding business? Precisely because it is so demanding. "The barriers to entry are very high," Scott says. That helps deter would-be competitors and protect the incumbent players.

A mere three players now control the bulk of the industry. The two biggest

Illustrations: Andrew Lyons 43



Industrial gases, such as oxygen and nitrogen, are omnipresent in hospitals

are Air Liquide of France and the Anglo-Irish Linde. They are followed by a smaller US-based competitor, Air Products & Chemicals Inc. Together, the big three command roughly 70% of the global market. Linde alone poured nearly \$5bn into capital expenditure in 2024, Scott states.

Their deep commitment to the sector gives the industrial gas giants an astonishing degree of pricing power. They typically demand that major clients sign long-term 'take or pay' contracts that oblige the customer to either buy a minimum quantity of gas for the next 15 or 20 years or pay painful penalties.

"I don't know any other industry that has 15-to-20-year contracts" of this nature, Scott says.

Consequently, the price of industrial gases rarely goes down, even in times of economic distress. "Over the past 20 years, prices have only gone in one direction," she says.

This surprises many investors. They lump industrial gas producers together with cyclical commodity producers and expect their earnings to fluctuate as dramatically as those of miners and oil pumpers.

In fact, the earnings of the big gas producers have marched steadily higher, with only rare exceptions, through all the economic upheavals of the past 20 years. While the bottom lines of most natural resource companies have swung wildly with shifts in commodity prices, profits at Linde or Air Liquide have risen with nearly escalator-like smoothness.

The future looks equally promising, thanks to a myriad of opportunities in growing industries. Linde and Air Liquide supply much of the hydrogen and oxygen that fuel commercial space rockets. They also produce the nitrogen that semiconductor fabrication plants use to keep their production lines free of contamination. In addition, they are riding the decarbonisation wave in manufacturing by devising ways for cement and steel producers to capture and sequester greenhouse gases.

Even bigger opportunities could lie ahead if a climate-challenged world is forced to shift away from fossil fuels and towards a more sustainable hydrogen-based economy. If so, industrial gas will be used to heat homes, fuel machinery and produce decarbonised steel. Companies

#### **Industrial gas sales**

Consumer related end markets



Healthcare

17%

Food & Beverage

9%



Electronics

9%

Industrial related end markets



Chemicals & Energy

22%



Manufacturing

22%

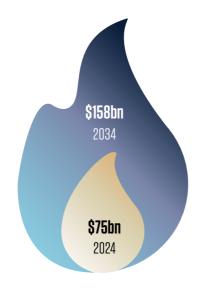


Metals & Mining

13%

Source: Linde plc, 2024 public filings. Total sales excluding Linde Engineering sales. Balance of 8% relates to 'Other End Markets'

#### Industrial gas market expansion



Source: Future Market Insights Inc.

such as Linde and Air Liquide would find huge new markets for their hydrogen expertise.

That is the hope, at least. Scott prefers to downplay expectations. She cautions that even if the shift to a hydrogen economy materialises exactly as predicted, it will be five to seven years before a significant number of hydrogen projects begin to boost results.

And that's fine by her. One of the things she admires about the gas giants is their patient view of the future, which aligns well with the Walter Scott investment approach.

"These companies are absolutely long-term focused," she says. "It takes years to build production facilities and then once they're operational, they're operational for decades."

For investors in the industrial gas giants, that long-term focus means a high degree of confidence about how the future will unfold. Boring? Maybe. But not to anyone who likes the prospect of a reliable stream of profits for years to come.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of Walter Scott.

## The famous five Ferraris

Enzo Ferrari only built road cars to fund his racing exploits – but what began as a sideline evolved into the world's most potent sportscar marque. **Stuart Codling**, author of The Story of Ferrari, selects five models that made the brand



© Ferrari

Performance always came first. Famously, Enzo Ferrari claimed that aerodynamics are for people who can't build engines. It was left to specialist coachbuilders such as Touring, Zagato and Pininfarina to conjure functional yet beautiful bodywork in

the early years, an arc we trace here as Ferrari moved from the artisan model to homogeneous, quality-first mass-production lines. Power and style remain the pillars of the brand even as it looks to a future beyond Enzo's beloved internal combustion engine.

#### 166 MM (1948-53)

In September 1948 Enzo Ferrari revealed a car at an international motor show for the first time. Many visitors to the Turin Auto Salon would still remember him as the man who used to run the racing division of Alfa Romeo. The 166 MM transformed perceptions of both him and his young company.

As with all early Ferraris, the 166 MM's nomenclature was functional: 166 cubic centimetres was the swept volume of one of its 2-litre V12's cylinders, while 'MM' stood for Mille Miglia, the epic 1,000-mile road race won by Ferrari earlier that year. Just 25 were bodied

in hand-beaten aluminium by Milanese coachbuilder Touring using its patented 'superleggera' (super light) technique.

All these cars were built for competition and it was a 166 MM which claimed Ferrari's first victory in the 1949
Le Mans 24 Hours, a key reputational boost on the international stage. Luigi Chinetti, soon to become Ferrari's US importer, partnered Lord Selsdon, the car's owner. Chinetti drove for 23 hours – one story has it that he plied Lord Selsdon with brandy to render him indisposed – and nursed the 166 MM home after its clutch broke, still a lap ahead of his nearest rival.



#### 166 MM (1948-53)

Engine volume	1,995cc	
Peak power	140bhp @ 6,600rpm	
Number produced	25	
Notable owners/drivers	Gianni Agnelli, Luigi Chinetti, Alberto Ascari, Eugenio Castellotti	
Resale value	\$4m	

All images courtesy of Ferrari S.p.A.

#### 250 GTO (1962-64)

Arguably the most desirable Ferraris of all are the 36 250 GTOs still in existence. In 2018 one was auctioned for \$70m. Quite a trajectory for a car dubbed 'Il Mostro' ('the monster') by the Italian press when Stirling Moss tested a prototype with crudely modified and unpainted bodywork in 1961.

The launch came at a turbulent time for Ferrari. Designer Giotto Bizzarrini was one of eight key employees who quit after a blazing row that November. Internal tensions had been building in the aftermath of the tragic Italian Grand Prix in which Ferrari driver Wolfgang von Trips and 15 spectators were killed, throwing the company's future into doubt.

At a time when the racing world was embracing the advantages of mounting

the engine behind the driver – a trend resisted by Enzo Ferrari – the 250 GTO was a defiant evolution of the front-engine concept. Its race-tuned, 3-litre V12 was mounted as low and far back as possible within the chassis to improve the car's handling balance and maintain a slim nose line, which also theoretically reduced drag (in fact the long nose generated aerodynamic 'lift', making the GTO a handful at high speeds).

The 26-year-old engineering intern Mauro Forghieri completed the GTO project, the beginning of a career which would yield three overall Le Mans victories and seven F1 constructors' championships. GTO valuations reflect not only their rarity, style and technical proposition, but also their success at an inflection point in Ferrari history.



#### 250 GTO (1962-64)

Engine volume	2,953cc
Peak power	296bhp @ 7,500rpm
Number produced	39 (claimed)
Notable owners/drivers	Chris Evans, Lawrence Stroll, Sir Anthony Bamford, Nick Mason, Ralph Lauren, Bernie Ecclestone, Stirling Moss, Phil Hill, John Surtees, Graham Hill, Lorenzo Bandini, Lucien Bianchi
Resale value	\$70m

#### **Testarossa** (1985-96)

Although the Testarossa is an icon now, few road-going Ferraris have been the subject of so much internal conflict. Six years in development, it was conceived to replace the 512 BB which had been on sale (though not in the US) since 1973.

Fiat, Ferrari's majority owner since 1969, wanted to expand US sales and its preferred – cheapest – option was a 'facelifted' 512 BB, with minimal re-engineering to comply with America's tougher safety and emissions regulations. Sense prevailed: the car was dated, and its cramped and stuffy cockpit would score poorly with US customers.

The decision to invest in a new car brought more challenges and debate. Adding multi-valve cylinder heads to the mid-mounted 4.9-litre flat-12 engine yielded more power but moving the radiators to the rear – to reduce 'heat

soak' into the cockpit – was problematic in terms of packaging. In a stroke of genius Emanuele Nicosia, a designer at Pininfarina, Ferrari's go-to styling house, proposed making the air intakes a dramatic design feature on each flank.

While it was named in homage to the 1957 World Sportscar Championship-winning 250 TR, on which Ferrari had painted the engine's cylinder heads red, the Testarossa was very much a product of the 1980s, symbolised by its presence in the slick TV cop drama Miami Vice. It was an unexpected union since Ferrari North America had threatened to sue the programme makers over their use of a replica 365 GTB.

The dispute was resolved when it emerged that Enzo Ferrari was a fan of the show, facilitating a genuine Testarossa in producer Michael Mann's preferred shade of white.



#### **Testarossa (1985-96)**

Engine volume	4,943cc
Peak power	390bhp @ 6,300rpm
Number produced	7,177
Notable owners/drivers	Miles Davis, Michael Johnson, Elton John, Rod Stewart, Gerhard Berger
Resale value	\$270,000

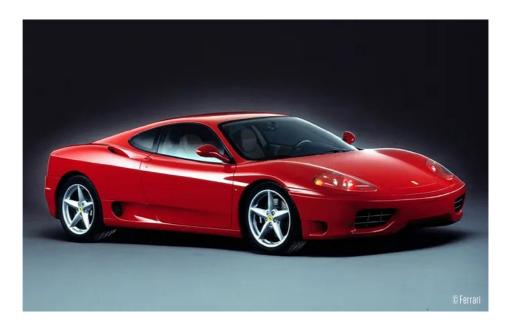
#### 360 Modena (1999-2004)

Enzo Ferrari's death in 1988 precipitated a period of drift for the company on road and track. Political infighting stymied the F1 project for a decade while Ferrari's road car offerings were eclipsed by rivals. New company president Luca di Montezemolo decreed an urgent programme of new models with better performance and quality.

The F355, hurried into production in 1994 to replace the disappointing 348, represented a great improvement but it was the 360 Modena, launched in 1999, which truly defined Ferrari's

trajectory into the next century. An aluminium bodyshell, designed using finite-element analysis to reduce material density in less structurally critical areas, made it only marginally heavier than the F355 despite being larger. The ultra-modern production line in the refitted factory ensured a consistently high standard of fit and finish.

From this point onwards cars carrying the insignia of the prancing horse would have the style and performance of a thoroughbred but without the highly strung temperament.



#### 360 Modena (1999-2004)

Engine volume	3,586cc
Peak power	394bhp @ 8,500rpm
Number produced	16,365
Notable owners/drivers	David Beckham, Jenson Button, Eric Clapton, Kobe Bryant, Greg Norman, Ice-T
Resale value	\$100,000

#### LaFerrari (2013-17)

The presence of the definite article in this car's title – not just a Ferrari but the Ferrari – signifies its position in the pantheon of the company's supercars. While its name painted the company into a semantic corner in terms of future model designations, on launch this carbon two-seater represented the peak of what was technologically achievable. Limited to 499 examples and costing over \$1m each, LaFerrari combined a 789bhp, 6.3-litre V12 with a 120kW electric motor. The motor reuses energy from braking to boost acceleration, making it a more environmentally responsible option.

Electrification represents a particular challenge to performance car manufacturers, since their brand proposition is built on the visceral appeal of raw noise and muscular power. As remaining fossil fuels become more costly to access and socially problematic to consume, even for those of high net worth, the internal combustion engine is being legislated out of existence in many countries.

While Ferrari's first hybrid was deliberately niche, joining a select group of limited-edition racers for the road – the 288 GTO, F40, F50 and Enzo – it sent a clear signal that the mainstream electrified future held nothing to fear.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of Walter Scott.



#### LaFerrari (2013-17)

Engine volume	6,262cc
Peak power	950bhp @ 9,250rpm
Number produced	499
Notable owners/drivers	Lewis Hamilton, Dwayne Johnson, Cristiano Ronaldo, Gordon Ramsay, Justin Bieber
Resale value	\$5m

### FROM THE ARCHIVE

January 1984

Our archives of company research and investment opinion are both valued and regularly accessed. These records help us learn important lessons. They demonstrate innovation and disruption over time, and underline enduring traits that define world-leading companies. This extract from a 1984 note on **Costco** is a reminder of its remarkable growth and the expansion of its loyal membership far beyond its Seattle roots.

#### 1984 - 2024

#### **Cardholders**

200,000



137m

#### Revenues

\$97m



\$249.6bn

#### **Employees**

1,950



333,000

#### Membership fee revenues

approx. \$4m



\$4.8bn

Source: Costco Investor Relations materials

\*Costco was a private company until 1985

#### COSTCO

Est. Market Capitalisation \$75 million\*

#### **BUSINESS REPORT:**

The company is a recently founded "warehouse" discount retailer in the Pacific Northwest, based on the same principles as the highly successful retailing concept started by the Price Club in 1976.

At present Costco has two locations, one in Seattle and one in Portland. Each "warehouse" is around 100,000 square feet of floor space, with all goods stacked out front, there is no additional storage space not open to customers. Each location is relatively low-cost as they are outwith city retail shopping centres. The merchandise consists of nationally advertised brand names, sold at considerably lower prices than those offered by traditional retailers (a standard mark up of around 15% is applied to all goods). They offer a wide range of product categories with a limited number of known brands within each category. Substantial cost savings and sales productivity are made by adhering to a "no frills" approach to retailing, optimum use of floor space, and a rapid turnover of inventory. Customers, or "members" of the Costco wholesale club, are restricted to small retailers or group members (employees of a large company or credit union), and sales are transacted on a cash or cheque only basis.

Although the merchandising business in general is highly competitive, Costco believes it is, and will continue to be, the dominant "warehouse" discount retailer in the Pacific Northwest. They already have a captive membership in Seattle and Portland. The Price Company has stated that they intend to limit their geographical expansion to California, Arizona and certain of the Northeastern States (via a joint venture). Of the sixteen openings Costco have targeted, all are in large cities, they have not even started to consider the smaller ones.

#### SUMMARY:

This retailing concept is relatively new and untapped, however it has to date proved to be very successful (the Price Club's first store opened late 1976 will record nearly \$100m in sales this year). Costco's management team have a great deal of experience in retailing, including Fed. Mart. and the Price Company, and we believe that with an Initial Public Offering within 18 months will be an exciting and rewarding investment.



# Asking the author: Ed Conway

Six key materials – sand, salt, iron, copper, oil and lithium – shape our civilisation. Author and journalist **Ed Conway** tells Investment Manager **Lucia Gibbard** why physical commodities matter more than ever

Chuquicamata mine in Chile's remote Atacama Desert and stares into the deepest man-made crater on the planet. Far below him, trucks look like bugs as they crawl along the floor of the gigantic open-pit mine.

Conway is dazzled by the size of the pit, an abyss so vast that it could easily swallow the world's tallest building. What strikes him with equal force is the anonymity of what he is seeing. Few people have heard of Chuquicamata – or of any copper mine, for that matter – despite our utter dependence on what such mines produce.

Without copper, our lights wouldn't turn on, our mobile phones wouldn't work, our cars wouldn't run. Yet most of us have only the haziest notion of where copper originates.

To Conway, the economics editor at Sky News, our ignorance of such matters amounts to wilful blindness. "We've encouraged ourselves not to think about where things come from," Conway says. That lack of thought makes us reckless about the risks that are building up around us.

Conway explored the risks in his brilliant 2023 book Material World, which is a fascinating look at how six commodities form the building blocks of the modern world.

I've recommended Conway's book to many colleagues because it illuminates an awkward truth: physical stuff still matters. In fact, it matters more than ever. We live in an era of artificial intelligence, virtual reality and solar energy, but all those ethereal miracles ultimately depend on the easy availability of a handful of nitty-gritty materials.

Consider sand, the grittiest, most humdrum material of them all. Most of us don't give it a moment's thought. Yet sand provides the foundation for both ancient and modern civilisation.

This is literally true, because sand is a key component of concrete. It is sand, combined with cement and other materials, that allows us to build modern skyscrapers, highways and ports.

And that is just the beginning. Sand is also the essential raw material for glass. Transformed by chemistry, sand gives us windows, spectacles, camera lenses, lasers, fibre-optic cables and solar panels. Sand's precursor quartz also gives us computers, since it provides the silicon in computer chips.

Small wonder then that the European Union deems the purest, most elemental forms of sand to be a critical raw material. Sand is the key to unlocking enormous economic benefits.

"By some estimates, the world will need to build three mines the size of Chuquicamata each and every year just to keep up with soaring demand for copper"

The catch is that those benefits come at a cost. Concrete, for example, turns out to be a major contributor to global warming. "For all the attention lavished on other sources of greenhouse gases such as aviation or deforestation, the production of cement generates more  $\mathrm{CO}_2$  than both of those sectors combined," Conway writes in his book.

Such tradeoffs are the norm when it comes to any of the key physical commodities on Conway's list. You can't make heavy use of sand, salt, iron, copper, oil or lithium without inflicting some degree of environmental damage. This creates inevitable tensions. "Without fossil fuels, roughly half of us would not be alive," Conway observes. "From fuel to pesticides to fertilisers, the foundation of modern society has hinged on carbon in various forms. Yet now, the carbon emissions from those fossil fuels threaten us all."

A shift to renewable energy like wind doesn't erase the need for raw materials. Building a single wind turbine requires tonnes of concrete and steel, not to mention plastics, fibreglass and carbon.

To make matters more complicated, no country can go it alone. Converting commodities into useful products requires the expertise of international networks of suppliers, refiners and manufacturers. As Conway suggests, "autarky, or economic self-sufficiency, is theoretically possible, but I think it would be incredibly expensive and disruptive to achieve".

The supply chains that hold these networks together are surprisingly long and intricate. They are also surprisingly vulnerable.

One striking example of that vulnerability is Spruce Pine, a small town on the Blue Ridge Escarpment in North Carolina. It produces the purest quartz in the world. Without its quartz, engineers would not be able to make the crucibles needed to produce the hyper-pure silicon wafers used to make silicon chips.

People who understand the importance of Spruce Pine's output regard this tiny speck on the map as a major economic choke point: if something were to happen to the single road that links its mines to the outside world, the entire global chip industry – and, by extension, much of global industry – would come shuddering to a halt.

This precarious situation is not as unusual as you may think. Whether it's a tiny quartz producer such as Spruce Pine or a huge copper mine such as Chuquicamata, the global economy has come to depend upon a handful of suppliers for many of its crucial needs. Our industries operate on the assumption that nothing will disrupt these key providers. "We forget the complexity of the modern world," Conway tells me. "We've almost encouraged ourselves not to think about where things come from, what happens to them in order to turn them into the products that we use, and what their journey has been along the way. We just assume stuff will turn up."

Is that still a wise assumption? Maybe not. As Conway says, "We've been seeing a shift in tectonic plates away from untrammelled globalisation to greater economic nationalism for quite some time." Politics and the physical world are colliding as the rivalry between the US and China picks up pace. The contest for physical resources is intense as the superpowers race to secure sources of supply and keep them from rivals.

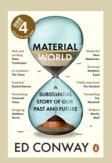
Meanwhile, countries that once welcomed mines are growing wary of the social and environmental costs that accompany the industry. By some estimates, the world will need to build three mines the size of Chuquicamata each and every year just to keep up with soaring demand for copper. Yet Panama has just halted an enormous copper

mine because of concerns about the environment. Other countries, including Chile and Peru, are mulling their own limits on copper extraction.

Investors are just beginning to come to grips with the implications. For now, most are simply ignoring the growing uncertainties involved in producing key materials. "We've shifted a lot of this stuff to the other side of the world," Conway says. "We've outsourced it all. And when something is out of sight, it's out of mind."

This is a subject that cannot be ignored. Its ever-greater importance is what prompted Conway to write his book. An alarm bell for all of us. It's an issue that Walter Scott has been digging into. Last year, we conducted a supply chain mapping exercise and attended an OECD conference on conflict minerals to better understand our portfolios' exposure to these risks. Our research into these dwindling material reserves and their importance in complex supply chains will certainly continue.

The views and opinions expressed in this article are those of the interviewee and do not necessarily reflect the position of Walter Scott.



Material World: A Substantial Story of Our Past and Future is published by WH Allen (paperback: £10.99)

## Who's in your team: Maxim Skorniakov

Maxim has been a member of the Research team since 2003. He has covered stocks across many geographies and industries but has a penchant for technology companies. The Research Journal's **Katie Boyce** started by asking Maxim about his early days at the firm

**Katie Boyce:** What was the first stock you pitched?

Maxim Skorniakov: When I arrived, I focused on emerging markets. Perhaps predictably, the first company that I put forward was Russian – the oil and gas company Yukos. It was a very different time back then. After the initial pitch, I was tasked with answering some questions. During that intervening week, Yukos's CEO Mikhail Khodorkovsky was arrested at gunpoint at a Siberian airport. He was charged with fraud and tax evasion and jailed for 10 years. Unsurprisingly, we didn't invest.

**KB:** And the first one that made it into portfolios?

MS: It was actually another Russian business, the telecommunications giant Mobile TeleSystems (MTS). Bought for the emerging markets portfolio and held for several years, I think it was the only Russian stock we've ever owned at Walter Scott.

**KB:** What has been the hardest company to sell and why?

MS: Probably Qualcomm, a US company which develops semiconductors and wireless technologies. It was one of the first stocks I got into global portfolios. Latterly, the investment rationale changed as the company struggled with challenges to its intellectual property licensing business and the maturation of the smartphone market. These moments remind you why it's important to stay detached. However much you understand a business and get to know its people, you have to recognise when things aren't working and to step away.

**KB:** What has been your most memorable research trip?

MS: Japan is always exciting. On a research trip there in 2016, I visited SMC's pneumatic equipment facility, where they make components that are used in automotive, electronics and pharmaceutical factories

#### **Maxim Skorniakov**

Maxim grew up in Izhevsk, a city known as the 'armoury capital of Russia' and the birthplace of the Kalashnikov assault rifle. Having studied economics, he won a scholarship to continue his studies at the University of Colorado in Denver before coming to Scotland to undertake a master's degree in investment analysis at Stirling University. And, despite the weather, he never left.

58 Photograph © Chris Watt





Max hiking Wales's highest mountain Yr Wyddfa (Snowdon) in 2003, flanked by directors Roy Leckie on his right and Charlie Macquaker on his left

(among others). There was one huge facility, with automated production lines that had once been manned by dozens of people. I particularly remember a process where a single human loaded a tray of various pneumatic components into a glass box and the custom-made robotics system did the rest in terms of assembling them. Interestingly, 80% of the components in this system were made by SMC.

**KB:** Which corporate leader do you most admire?

MS: Microsoft's CEO Satya Nadella is very impressive. As head of the company's Server & Tools division, he was credited with establishing Microsoft's Cloud business. During that time, Cloud went from being a tiny part of the overall business to a multi-billion-dollar revenue generator in the last fiscal year. His ability to

execute in this role has been the reason for Microsoft's turnaround. I met Satya in London once, not long after he became CEO. That's one of the perks of this job – you get to quiz these inspiring people who are running world-leading companies.

**KB:** What has been your most challenging company meeting?

MS: No one company springs to mind but it's those companies which are so clearly overselling themselves. They're bigging themselves up and bashing their rivals without really being able to tell the whole story. If you know the industry they're operating in well, and possibly even invest in a competitor, you can spot them a mile away. It's frustrating more than anything.

**KB:** What was the last book you read and what did you learn from it?

**MS:** You'll perhaps spot a theme here. I recently finished The Coming Wave by Mustafa Suleyman, the CEO of Microsoft AI and co-founder of DeepMind. In the 20-plus years since I started at Walter Scott, it is remarkable how technology has developed, not only in pure-play tech companies but in enhancing productivity across various industries. I thought the final chapter on "ten steps towards containment" was really interesting. It's an important reminder that generative AI technology can't be left unchecked, something that's useful to bear in mind when considering companies operating in the technology industry and beyond.

**KB:** Away from Charlotte Square, where do you draw your inspiration?

MS: With two teenage children and a miniature Yorkshire terrier, it's always good to get out in the fresh air together. I find it helps to gain perspective on whatever I'm thinking about. Before I came to Scotland, I lived in Moscow briefly. It was too hectic! Here you can always get out to the beach or the hills very easily.

"I like the financial side of this role – spotting patterns in the numbers – as well as asking questions"

**KB:** If you didn't work in investment research, what would you do?

MS: I come from a family of engineers: my parents worked in a defence factory and my brother is a software engineer, based in Cyprus. But engineering never appealed to me. I like the financial side of this role − spotting patterns in the numbers − as well as asking questions, really finding out what's going on with a business. Ian Clark, one of the firm's co-founders, used to say that in this industry you're at the inflection point between global politics, economics and social change. It's a fascinating role that never gets boring. ■

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