

A vertical photograph of three ants carrying a large, green, textured cluster of small fruits (possibly a type of berry or seed pod) on their backs. The ants are brown and are positioned one above the other, with the top ant carrying the cluster, the middle ant carrying the top ant, and the bottom ant carrying the middle ant. They are walking on a piece of wood at the bottom. The background is a soft, out-of-focus green and yellow.

INTERNATIONAL ALPHA

Anthology

WINTER 2021

BAILLIE GIFFORD

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Annual past performance to 30 September each year (% net)

	2017	2018	2019	2020	2021
International Alpha Composite	22.1	2.7	1.3	23.7	15.4
MSCI ACWI ex US Growth Index	20.2	2.3	-0.7	3.4	24.4

Net of fees, USD.

Source: Baillie Gifford & Co and relevant underlying index provider(s).

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*Diversity of thought is far more important than having
a purely economics or business school background.*

ANGUS FRANKLIN

TEAM OF TALENTS

BAILLIE GIFFORD'S INTERNATIONAL ALPHA TEAM

A musician, a lawyer and a graduate in Arabic studies walk into an office. This isn't a joke. It's a day in the life of Baillie Gifford's International Alpha Team which recruits widely and thinks differently.

It's rarely the four fastest runners who win Olympic sprint relay gold. What counts is bringing together mixed talents to form an effective unit. Fast starters, strong finishers, and those who excel on the bends all bring something different. Skill in transferring the baton is crucial, so too is the mix of soft skills and personalities that define a great team.

The right blend is vital to the success of Baillie Gifford's International Alpha Strategy. The team behind it differs from many international funds in that individuals from different educational backgrounds, and boasting a range of experience, combine strengths and share responsibility to manage the portfolio. By supporting and challenging each other, they ensure that the team's output is greater than the sum of its six parts.

International Alpha investment manager Angus Franklin tells Matt Dey why disparate decision makers do better.

Matt Dey: What makes International Alpha different?

Angus Franklin: We build on the strong foundations of Baillie Gifford – a privately-owned firm that has been around for over a century. There are no external

shareholders, so there's no interference in how we go about our job. That stability plays a big part in our recruitment process. We don't look for the type of background typical of our industry. Instead, we look for clever, inquisitive and thoughtful people. Cognitive diversity is important to us; it's one of the team's biggest strengths. We bring together individuals from different backgrounds with varied perspectives, and often different ways of approaching things, yet we all work towards a common goal. Diversity of thought is far more important than having a purely economics or business school background. For us, someone who studied English literature or music can add as much as an economist, and in most cases more. Economics is not called the dismal science for nothing! Excessive reliance on models has proven to be quite dangerous when looking at complex financial systems such as stock markets (or even pandemics) as anyone who worked through the Great Financial Crisis will be aware. We think an ability to be curious and think differently is far more important.

MD: What is the make-up of the team?

AF: The International Alpha Team tries to combine diversity of thought and collective responsibility and is, therefore, different from the star manager culture seen elsewhere in the industry.

We are a team of six experienced investors who know each other very well. Each of the team brings something different in terms of experience, expertise and personality. From Donald and Andrew and their encyclopaedic knowledge of all things Japan and emerging markets, Tom with his analytic rigour, Jenny with her strategic thinking, to Toby with his boundless energy and enthusiasm, there is a nice balance between youthful optimism and pragmatism which is important to us as long-term investors. Our strength lies in the depth and breadth of experience. While we all have primary responsibility for particular regions, many of us have rotated through different investment teams across the firm during our long careers here. This means there is no home bias – comparing and contrasting stocks is made easier and decisions can be made in a holistic manner. That's our secret sauce. For example, our discussions around Spotify (Swedish music streaming platform) have been assisted by our knowledge of Sony (Japanese global record label) which in turn helped develop our positive view on Tencent Music Entertainment (Chinese music platform). The team's size means it's big enough to provide diverse perspectives but small enough to ensure effective decision making. We have individual stock picking responsibility but collective responsibility for the portfolio. I believe Baillie Gifford's training and rotation system has created a unique competitive advantage in this regard.

MD: How does the process work in practice?

AF: We're trying to identify businesses with large, durable growth opportunities and sustainable competitive advantages. We gather information from a range of sources and, when a member of the team has strong views on a stock, they write a research paper. Potential purchases or sales are discussed at team meetings, and the others are encouraged to challenge the

proposer's work. In the absence of any information that would overrule the decision, we tend to back the enthusiast.

We purposely don't all sit together, and we are aware of the dangers of 'groupthink'. It's important for each of us to have the freedom to follow individual curiosities and interests, whilst also tapping into the different insights from other teams across the investment floor. We want people to back themselves. This space helps support independent thought. Cognitive diversity is a key element, but the way the group interacts is even more important.

MD: What does that mean for the portfolio?

AF: It helps us make better decisions. We hold broader, more interesting debates on companies around the world. We always explore the strengths and weaknesses in the proposer's stock idea, trying to discover whether there are areas we need to look at more closely, but without denting the team member's conviction and enthusiasm of the proposer. People want to see the pluses and the minuses of each idea, and there are often different views. This is healthy. We aren't afraid to disagree.

MD: How has that process evolved?

AF: Originally, we worked to more of a consensus decision-making approach, but we found we had too many score draws and often wouldn't come to any decisions! About 14 years ago we moved to a 'back the sponsor' model. Given the trust we have in each other and such stability in our people, philosophy and process, this works well and produces a higher conviction portfolio overall. New ideas are still subject to an assessment of the overall impact and positioning of the portfolio, so we won't build up a load of ideas in one area. But, in principle, if one of the sponsors finds a seconder in the group then we would expect to take a holding.

MD: You rotate the role of chairing of the stock meetings. Why?

AF: We're democratic and we're looking for open debate. We're all experienced,



1. Donald Farquharson

Although I graduated in Arabic Studies, I've focused on Japan for more than 30 years. It has been a pretty successful period for bottom-up, growth-orientated investors.



2. Jenny Davis

As a musician, I love analysing patterns to understand their emotion and mathematical structure – that applies equally to businesses or symphonies.



3. Angus Franklin

I studied history then became a chartered accountant, so tend to focus on what historical records teach us about companies' business models.



4. Toby Ross

I joined Baillie Gifford after studying English literature. I'm still a voracious reader, but nowadays it's insightful research rather than the classics.



5. Andrew Stobart

My ambition was to become a medic like my grandfather, until a chance meeting with an investment manager switched my interest to finance and economics.



6. Tom Walsh

A law degree and accountancy qualification cemented my attention to detail and love of analysis. There's nothing quite like getting to know a company.

and we value everyone's opinion, so we don't like to have our meetings steered by one particular person. Rotating the chair helps to create a better dialogue and everyone is more comfortable speaking up – each member brings a different style to leading discussions which keeps things fresh. We're trying to create an environment that fosters challenge. It also helps with shared accountability. We have no time for group think. It's about honest, rigorous debate yet collective responsibility for the portfolio. It's a balance that works well.

MD: Give us an example of the teamwork in action.

AF: The breadth of experience and holistic focus is key. I'll give you a couple of different examples. We believe the market is underestimating the growth opportunity in Asia for investment and life insurance products.

Penetration rates for these products are low and likely to grow faster than the underlying economies, and the lack of social security and rising living standards mean some form of life assurance is becoming essential. We have owned Prudential for these reasons for some time. Transferring our knowledge and understanding has led to investments in AIA and, more recently, Ping An.

We can also use the team's experience to contrast different ideas. Donald once brought a variety of different specialist Japanese retailers to our attention. The decline of the once dominant Japanese department stores provided a boost to the long-term growth opportunity for these companies. However, the discussion within the team quickly circled back round to Inditex, the owner of the Zara brand, which had already expanded successfully to over 70 countries, highlighting the strength of its logistics-based operations. We went with the latter.

MD: What are the benefits of doing it that way?

AF: We're trying to encourage independent thought and perspectives. Not seeking consensus is also empowering – it means we can follow our own enthusiasms and interests. In this way we can benefit from the breadth, depth and diversity of our combined 130 years of experience. But equally importantly, given that we have worked together for many years, we can support one another. If you have a holding whose share price is under pressure, it's natural to come up with reasons why it's a bad investment. Often you need the support of your team to say, "let's go back to basics. It's doing badly at the moment, but actually the core of the thesis is correct – it's just facing headwinds."

When you're on your own or in a smaller group, you might convince yourself you've been wrong and be tempted to throw something out prematurely. Our experience with Olympus, the endoscope maker, is a great example. The market was in panic mode following the revelation of fraudulent accounting and the threat of a stock market delisting. It was a high-pressure moment but being able to reduce that burden on our colleague allowed far more rational decision making. Knowing you have the support of your colleagues makes it far easier to focus on the first principles of cash flow rather than market hysteria, and to back your conviction to stay the course, in this case to the benefit of our clients.

MD: What are the downsides of the team approach?

AF: From the outside it might look cleaner if you have one or three people reaching a majority verdict. But in doing so you lose a vast stack of experience and the diversity of thought probing the investment case and coming up with a wider variety of ideas. As discussed previously, we are keen to avoid consensus decision making amongst the six of us as this may lead to undifferentiated views from the market at large. We get around that by backing the individual. That's the advantage of broader discussion and of having worked together for so long. We respect others' views and we learn from each other. Most importantly, it's an approach that is built on trust.



Combined
130
years of experience



*Most importantly, it's an
approach that is built on trust.*

ANGUS FRANKLIN

SWARM INTELLIGENCE

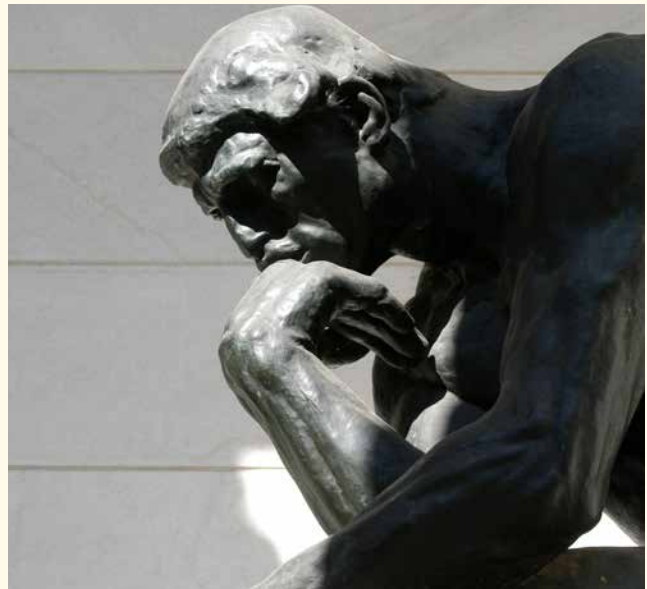
BAILLIE GIFFORD'S INTERNATIONAL ALPHA TEAM

Our industry is full of star fund managers and guru investors. It is a cult of the individual, not a celebration of the team. The psychologist and author Daniel Kahneman believes that “when people look at a joint project, they are very curious about ‘who did it’. The assumption is that one person did it. ... our joint work is clearly superior to anything we could have done alone ... The urge is to allocate credit and to single out people and not treat collaborations as units.”

Our belief is that collaboration produces better results.

When you think of someone doing research, you probably have an image rather like the image to the right in your mind. Instead, I would like you to think of our research process like the image on the cover.

This picture is a murmuration of starlings. These birds gather together in a particularly fascinating way. They form bizarre, shifting shapes as they flock, confusing any potential predator into thinking they are one enormous organism. This collective behaviour is a kind of swarm intelligence, a self-organised and decentralised group. There is no King Starling telling the others what to do. In *The Wisdom of Crowds*, James Surowiecki finds that human groups can also show an intelligence greater than any single person. We agree. For us, collaborating in a team leads to wiser investment decisions.



A solitary figure, thinking quietly, awaiting a Eureka moment.
© YPC Travel Photo/Alamy Stock Photo.

Why does collaboration work in investing? Ray Dalio, the hedge fund investor, thinks “the main advantage of working in groups is that it’s easier to design a group to include all the qualities needed to be successful than to find all those qualities in one person”.

The qualities that we believe are needed to make good investment decisions are threefold. First, considering diverse sources of information; this is evidently easier to do in a group as more people can absorb more information than any one person can alone. Second, extracting insight by identifying which information can have the greatest impact; again this is easier in a group where the wisdom and experience of different people can be brought into discussion. Third, keeping one’s head through market gyrations; a well-functioning group can achieve this by supporting each other.

Let me take each of these in turn and illustrate our collaborative process. First, we consider diverse sources of information. The International Alpha Portfolio Construction Group (PCG) is a motley crew in terms of our educational backgrounds. Between us we have degrees in everything from Arabic Studies to Music. To the business world focused on MBAs and CFAs, we can appear a collection of eccentrics. But this cognitive diversity is a great strength, and it is not an accident. It gives us different lenses through which to view the world. Collaboration between a cognitively diverse group is one of the secret sauces in our investment process.

Across the Baillie Gifford investment floor we seek alternative sources of information, in order to step out of the echo chamber of our industry.

Our alternative inputs range from sponsoring the largest non-fiction book prize in the UK to working directly with academics and investigative journalists. These investigations have ranged from changing food consumption habits to ageing, and the implications for investment opportunities. These give an independent view and a different methodology from our own. We also try to avoid groupthink in the way we structure our teams. We debate all research within small teams of around six, a size identified by academics such as Charlan Nemeth as optimal for incorporating a range of views whilst not side-lining any dissenting voices.

Alibaba and Grifols both exemplify how we utilise the diversity of the team to consider a stock before we buy. In the case of Alibaba, several different sources within Baillie Gifford contributed to the communal understanding of the stock. Baillie Gifford’s longest standing client¹ had owned the stock ahead of it listing; our Emerging Market team provided Chinese context; an international team examined the VIE² structure; and a technology analyst assessed the business model against global comparators.

In the case of Grifols, our shared research library contains notes dating back to mid 2009 (the company joined the Spanish IBEX 35 Index in early 2008). We were able to speak with a number of our colleagues in both the equity and fixed income departments who had produced research notes and management meeting notes; not just with Grifols but also their competitors. We had in-depth knowledge within our PCG of its UK, Australian, American and Chinese competitors, so could compare businesses in order to identify the highest quality player.

1. Baillie Gifford’s longest standing client has been managed since 1909.

2. A variable interest entity (VIE) refers to a legal business structure in which an investor has a controlling interest, despite not having a majority of voting rights.

Our alternative inputs range from sponsoring the largest non-fiction book prize in the UK to working directly with academics and investigative journalists.



The second way in which we collaborate is through bringing the wisdom and experience of the group together to generate insight. Information in itself is not a competitive advantage, but insight is. We try to create a supportive, stable culture and long-term investment horizon where there is time to figure out what really matters in an investment case. The ability to pass on institutional memory is an important part of the wisdom we try to bring to our investment cases. Within the International Alpha PCG alone, we have 143 years of collective investing experience, 116 years of which were spent at Baillie Gifford. This degree of perspective and stability allows us to focus on signal rather than noise, on long-term returns rather than short-term expectations.

Our industry is crippled in its ability to think long-term – most companies manage their accounts to quarterly results, and most fund managers manage their portfolios to annual performance. This has a detrimental impact on returns. You will all be familiar with the businesses of Amazon and Walmart. Amazon invests heavily for the future, and in 2017, had only hit quarterly earning expectations four per cent of the time over the past decade.³ In contrast, Walmart has smoothly delivered quarterly earnings that met expectations 75 per cent of the time over the same period. Amazon added \$424 billion to its market capitalisation over the same decade, whilst Walmart has added only \$10 billion in value. We find the same pattern in our own performance: we have outperformed in 59 per cent of quarters, but a wholesome 100 per cent over rolling 5 year and longer time frames.⁴ Investing for the long term is the driving force behind returns, and it is easier to invest for the long term in an environment of long-tenured staff, stability, and the passing on of wisdom.



3. To 30 September 2017.

4. As at 30 September 2021.



The third way in which we collaborate is by supporting each other, by owning the portfolio as a team. A common goal is essential – we can disagree and differ and display cognitive diversity more safely because we know we are all seeking the same end, which is long-term outperformance for our clients. Indeed, our variable remuneration is aligned with long-term client outcomes.

It goes without saying that we are not the first to have discovered that working together is a good idea! Steven Johnson's book, *How We Got to Now*, is an explorative romp through the history of innovation, and makes the central point that ideas transmit laterally and build upon each other; no innovation can be singled out as a Eureka moment within one man's brain. Cast an eye over the history of innovation, and it is evident that each invention was not a 'light-bulb moment' in the brain of a lone genius, but a progression of ideas across people, places and industries, each building upon the other. How could Galileo have observed that the earth orbits the sun if the glass industry had not refined its production of lenses? Why would the glass industry have produced lenses if demand for spectacles had not increased after the invention of the printing press?

Cast an eye over the history of innovation, and it is evident that each invention was not a 'light-bulb moment' in the brain of a lone genius, but a progression of ideas across people, places and industries, each building upon the other.



The lesson here is that history is biased; it elevates the individual genius and systematically forgets the cultural surroundings of which they are a product. Call this a Cartesian worldview, call it a basic human need to find meaning and order in a seemingly random progression of events, call it what you like: history apports success to a special few memorable names. But truth be told, any genius is a product of time and space.

We believe broader adoption of Kahneman's views could benefit society. It is about time the world was kinder to collaboration, which allows us to consider more information and to overcome more behavioural biases in an effort to make wiser decisions. More than that: by collaborating, we create a sustainable culture that should endure, with the institutional memory of our investors benefiting the development of our next generations.

Together, we can achieve more.



THE ATLASES OF THE MODERN ECONOMY

BY JENNY DAVIS

In April 2020, half of the global population was living under lockdown, due to the coronavirus (Covid-19) pandemic. Few had even heard of the disease less than three months previously. Such a rapid change in circumstances is hard to compute.

There is a kind of psychological seasickness evoked by the lurching suddenness of it, and it is natural to wonder what life will be like after all this. There will be grieving for loved ones lost, and for the pre-coronavirus world; as well as celebrating some newfound perspective on life. The 25 per cent rise in the MSCI world index between March 2020 and June 2020 suggests that the market is still in the ‘denial’ stage of grief, and that there is a lot more processing of events to come before we can truly find meaning in and accept them.

As the market makes sense of current events, it will go through a ‘shake out’, and in so doing it will differentiate the strong businesses from the struggling. Those businesses with the endurance and strength to shoulder the modern economy, akin to Atlas bearing aloft the sky, will grow stronger, whilst others will topple under the strain. What can we learn from history to help us navigate these turbulent times, and to successfully invest our clients’ capital?



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HISTORY DOESN'T REPEAT ITSELF, BUT IT OFTEN RHYMES

The first lesson, borrowing a phrase attributed to Mark Twain, is that history rarely repeats, but it often rhymes. However, society all too often wastes efforts preparing for history to repeat itself.

The Spanish flu pandemic occurred a century ago. By a strange quirk of its historical timing, it was particularly lethal for people aged 28. The flu was most deadly for 20-to 40-year-olds, but it was 28-year-olds in particular that saw a nasty spike in mortality. The best theory to explain this is that in 1890, the year in which those aged 28 in the Spanish flu outbreak were born, a strain of influenza dubbed Russian flu did the rounds. Rather than protecting the 28-year-olds from Spanish flu by giving their immunity a head-start, the reverse was true. These young adults were at a comparative disadvantage: their immune systems were wearing the wrong armour for the wrong battle, and mounted a defence against Russian flu rather than Spanish flu. Their immune systems fought so hard and so ineffectively as to trigger a cataclysmic immune response known as a cytokine storm.

In other words, the body responded to the last crisis it had experienced, rather than the current one: it expected history to repeat rather than rhyme. It is a human failing which can be seen writ large in much of the western world's planning for future pandemics.

The UK Government's blueprint was modelled on a novel influenza outbreak, rather than a SARS-based disease; the US Government made the same mistake, and had even been cutting funding for the Centre for Disease Control and Prevention, perhaps because the last pandemic to significantly impact Americans was a distant memory. Much of the world has been wearing the wrong armour for the wrong battle.

This pattern is ingrained in human nature: we tend to 'shut the stable door after the horse has bolted', to coin a phrase. Richard Thaler, the behavioural economist, neatly summarises how this impacts the purchasing of insurance: "Whether people buy insurance for natural disasters is greatly affected by recent experience. In the aftermath of an earthquake, purchases of new earthquake insurance policies rise sharply – but purchases decline steadily from that point, as vivid memories recede." Recent events are top of one's mind: we are painfully aware of the fact that such things can happen, meaning we put a higher probability on them happening again.

PREPARE FOR THE FUTURE, NOT THE PAST

LESSONS FOR YOUR PORTFOLIO

Crises tend to do strange things to our perception of time: everything changes extremely quickly, meaning each day feels like it lasts forever, and the old normal was eons ago, a distant memory. It closes in our field of view, making us more reactive to immediate stimuli, and less able to do the nuanced and complicated, slow-thinking computations that go into long-term decision making. So how should investors overcome these cognitive biases? How do we prepare for something we can't predict?

We prepare by investing in companies with characteristics that make them antifragile, a term coined by Nassim Taleb to describe 'things that gain from disorder'. These businesses power the economy from behind the scenes.

TSMC is a fantastic example of a company that is well-placed to benefit from new growth opportunities, even if we do not know exactly what those opportunities will be. TSMC is the world's largest semiconductor foundry, with 50 per cent market share. Their scale makes them such a vital supplier of chips that they are

almost agnostic as to what the chips are for, be that smartphones or autonomous vehicles or the internet of things. Whichever technological innovation takes off next, TSMC is almost certainly going to be supplying the chips.

In turn, TSMC would not be able to make the next generation of semiconductor chips without the extreme ultraviolet (EUV) lithography machines provided by ASML. These are the cutting-edge machines that enable foundries to etch circuits onto silicon chips. ASML too has a fortress of a competitive position, thanks to its near-monopoly on the supply of EUV machines. Without ASML's lithography, it would be near impossible to deliver increasing compute power on decreasing chip sizes at the pace required to meet ever expanding demand for connected devices. If anyone was left sitting on the fence about the importance of connected devices to today's economy, coronavirus will have changed that.

We invest in businesses which are antifragile due to their ability to capitalise upon whatever the future may throw at them. These are the Atlases of the modern economy; they hold it up, and if they shrugged a lot of other businesses would collapse.

We invest in businesses which are antifragile due to their ability to capitalise upon whatever the future may throw at them. These are the Atlases of the modern economy; they hold it up, and if they shrugged a lot of other businesses would collapse.



SAP's software, for example, is the beating heart of many businesses: it manages every order, every unit of inventory, it connects employees, and analyses all this data in real time to facilitate strategic decision-making. 77 per cent of the world's transactions (by value) passed through a SAP system in 2018.

Today, it is facilitating the shift to the Cloud; an essential shift for all businesses trying to survive whilst employees work from home. SAP had not predicted that vast swathes of the economy would be forced to work from home when they made their series of Cloud-computing acquisitions beginning in 2012. However, they were well prepared for the event because management had invested not to expand the company's short-term margins or their personal profits, but to expand the long-term growth opportunity and deepen the company's competitive advantage.

It is not just within tech that we find these Atlases: for example, Shimano supplies 70 per cent of the world's bicycle brakes; every week, three quarters of the global population use a product containing a solution from Novozymes, be that the active ingredient that cleans your laundry or keeps your bread fresh; half of the world's cheese and yoghurt is produced using Chr Hansen's bacteria; Nidec dominates the market for motors that power 'anything that spins or moves', including hard-disc drives and the haptics in your smart watch; and so the list goes on. We even have the aptly-named Atlas Copco, a Swedish industrial business that has been a long-standing holding of Baillie Gifford. Atlas Copco dominates the global supply of air compressors, which are 'a silent partner to every industry imaginable', used in applications from dentistry to cement plants to production lines, and it has been doing this since 1873.

Few of these businesses will ever be top of your mind; yet without them where would we be? We would have no smartphones, smart watches or data servers; no cloud computing and no industry; we would be cheeseless and unbicycled: a sorry situation indeed. These are the unsung heroes of our global economy.





The lesson for us as investors is that we can't predict the future, but we can prepare for it.

It is easy to call to mind those companies that we have come into frequent contact with during the coronavirus pandemic: Zoom, Facebook, Amazon, the list goes on. At Baillie Gifford, we invest in many such transformational growth stocks, to great effect. For example, telemedicine has existed in some form for a long time, but coronavirus has created a lightbulb moment for societal awareness. The Chinese online doctor consultation app, Good Doctor, saw its new user registrations increase 900 per cent in January 2020 from the previous month, and its scalable artificial intelligence meant it was able to cope with this surge in demand. These businesses are agents of creative destruction, facilitating a new and more efficient way of interacting and disrupting incumbent profit pools. Yet there is an 'availability heuristic' for those businesses that are top of mind, much as one is more likely to buy earthquake insurance after an earthquake. The Atlases, by contrast, will be upholding the modern economy whichever app, platform, or brand is currently in vogue.

The lesson for us as investors is that we can't predict the future, but we can prepare for it. We at Baillie Gifford do so day in, day out, regardless of stock market gyrations and whether we are working from the office or at our kitchen tables. We look for antifragile businesses: businesses that are bastions of stability through thick and thin, that disrupt incumbents and create new profit pools, that emerge stronger than their peers, that take advantage of a crisis to acquire or invest. These businesses have a natural immunity which makes them durable investments.




LESSONS FOR WIDER SOCIETY

At Baillie Gifford we are incurably optimistic; it comes from investing in growth equities where the opportunities are skewed to the upside. Putting that bias aside, however, I am nonetheless optimistic about the ability of society at large to emerge stronger from the coronavirus.

Global society learnt some incredibly important lessons from the world wars of the early 20th century. We have a far deeper understanding of human psychology and resilience today, in part thanks to the work done by doctors during the First World War. Doctors such as William Rivers, based for much of the war here in Edinburgh, did pioneering work with sufferers of ‘shell shock’. That so many previously healthy men could be so deeply psychologically impacted by their war-time experiences upended the idea that mental ill-health was a sign of individual weakness.

It was a turning point in making society realise that anyone can suffer mental ill-health under certain circumstances. Without that, would we be able to accept, expect, and openly discuss why lockdown is hard for each of us in different ways? Undoubtedly lockdown is hard: for a lot of people it means being passive in the face of uncertainty, confined to tight spaces, and coping with an ever-present yet invisible risk of infection from the very things that should be sources of joy and health: social interactions. Nonetheless, we are over a century further into the still young fields of psychology and psychiatry, with far greater social acceptance and provision of support as to make us more psychologically resilient than previous generations. The importance of this cannot be overstated: confident rational optimism is the essential life force of economic growth.

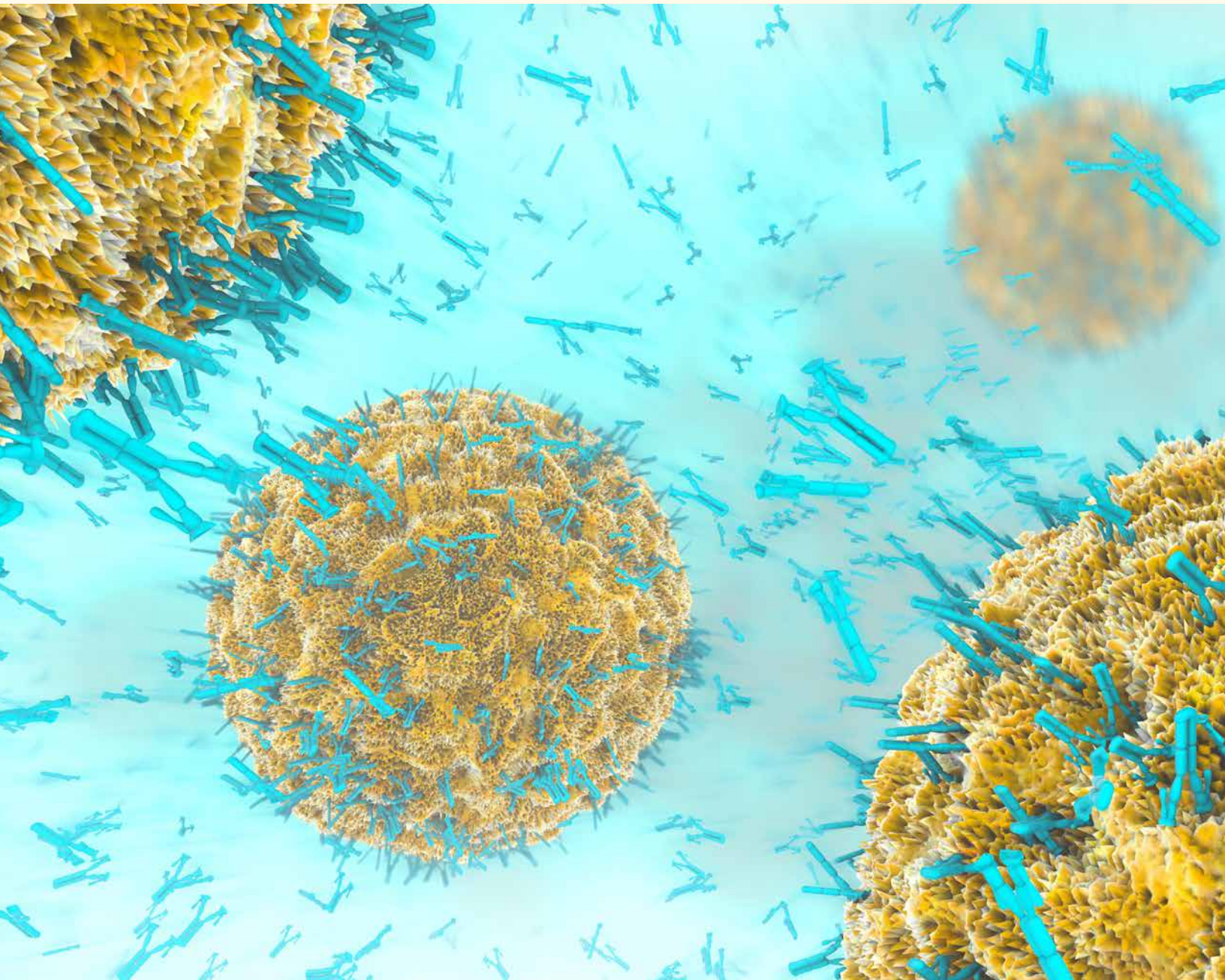


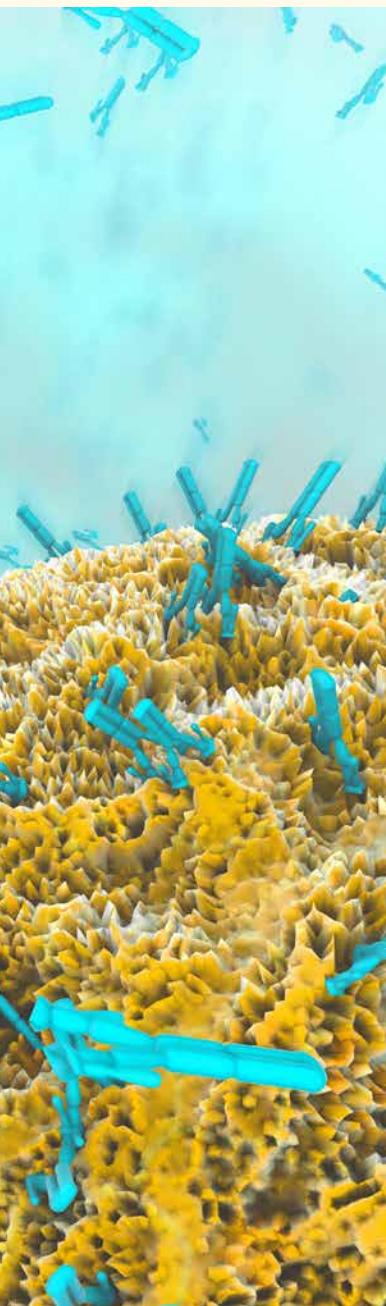
*I believe we must not miss
the opportunity to learn
from this crisis and reform.*

UK on lockdown due to coronavirus pandemic
© Getty Images Europe

The Second World War also taught us a lesson that stands us in good stead today. Most of our international bodies today were formed following the Second World War, and they still stand to serve as a safety net and to reduce or prevent conflicts arising. The World Bank, the International Monetary Fund, the United Nations and the Universal Declaration of Human Rights were all founded in the 1940s. We must not forget the importance of these international institutions: the global economy cannot be siloed without a negative impact on each and every one of its constituent parts; we are connected, diseases do not observe national borders, and this requires a whole population response.

The virus has held an unflattering mirror up to many aspects of society, such as the higher death rates of minorities, the poor protection for the elderly in care homes, the extra demands holding back working women, the simple fact that capitalism does a bad job of running a health service by putting a price on life. There may be an overwhelming desire to just snap-back to the way things were before this, but I believe we must not miss the opportunity to learn from this crisis and reform. Let us hope that this time history rhymes, rather than repeats; that we grasp the nettle of social inequality and global warming, and that coronavirus acts as the spur.





CONCLUSION

We invest in two blood plasma companies, CSL and Grifols, both of which produce immunoglobulin. Each unit of immunoglobulin contains a polyvalent soup of the antibodies of over a thousand different donors. The recipient of immunoglobulin receives a dose of the learnt immune responses of those donors with their different ages and different exposures to different pathogens.

Immunoglobulin is a fantastic analogy for how we can come through this coronacrisis. Its healing power is in its teamwork, in learning from each other's experiences, across ages and places. At Baillie Gifford we talk of our 'institutional memory' as a key competitive advantage. When we say that our business has survived world wars, cold wars, pandemics, financial crises, we do not simply mean that the name Baillie Gifford has traded throughout, we mean that those working in the business have handed down their accumulated wisdom from person to person by working in close teams across multi-decade careers, training our own graduates as we go. Our institutional memory is our immunoglobulin, and it makes us better prepared than a single individual could be for whatever the next exogenous shock might be; it protects us from being those poor 28-year-olds in the Spanish flu pandemic.

For investors, the start of 2020 brought historical market falls. In the three months since January, the UK market saw its biggest three-month drop since the South Sea Bubble of 1720. This has been just as quickly counterbalanced with a snap-back which seems somewhat out of step with the global economy. These whipsaw gyrations tell us more about the current psychological state of market participants than they do about the true value of businesses.

Looking out longer term, you do not need to know what the future will look like exactly if you invest alongside those who create it, invest for it, survive through it. Which businesses are facilitating the digitalisation of society? Who do they depend upon to do so? Who keeps the wheels turning on our industrial sectors, our food chains, our healthcare? The way we prepare for whatever the future may bring is to invest in the Atlases of the modern economy, the businesses upon whose shoulders society's progress rests.

*Quality will remain long
after price is forgotten*

SIR HENRY ROYCE

QUALITY DELIVERS

BY TOM WALSH

Shortly after agreeing the purchase of my first home, I phoned my parents, looking for reassurance. I was putting everything I had ever saved into a modest deposit and taking on more debt than I had ever imagined to buy a small flat. There were cheaper, larger and flashier flats on the market, but this one had the right location, the right proportions and, for want of a better word, the right quality. “Don’t worry” my father said, as have others before him, “quality is remembered long after price is forgotten”.

He was right of course (he often is). I loved that flat and when I came to sell it, despite a very shaky housing market, someone else was prepared to pay a premium for the same quality I first fell in love with. The message to me was clear and the lesson well-learned: Quality delivers over the long term.

The same can be said of equity investing, albeit pinpointing exactly what quality is and how we should measure it is harder. Unlike some, we do not believe the acid test is the historic return on equity ratio, the stability of historic margins or even the strength of a balance sheet. It is the interaction of numerous factors that create the conditions for a company to grow and thrive over many years. It is in a company’s ability to take advantage of the opportunities ahead of it, to be resilient to the inevitable challenges it will face, and to adapt and evolve as the world changes.

These are the attributes that enable companies to thrive, not just from quarter to quarter, or even year to year, but from cycle to cycle and decade to decade. Investors who are prepared to seek out such companies, and have the patience to stay with them for the journey, may be rewarded with extraordinary long-term returns.

NUMBERS DRAW THE EYE

In the investment world, quality seems to be like beauty: very much in the eye of the beholder. Most investment managers claim to invest in “quality” businesses, but the definition of that quality can be frustratingly elusive. Index providers offer greater precision but whereas the MSCI Quality factor index uses return on equity, debt to equity and earnings variability as its three fundamental variables, others offering similar indices opt for slightly different quantitative inputs.

Two elements that do unite most definitions of investment quality across those that share their approaches are a focus on quantitative metrics and stability. Such elements clearly have their merits. We have long highlighted the superior return on equity and lower debt levels that characterise the International Alpha portfolio in aggregate. We have also praised the

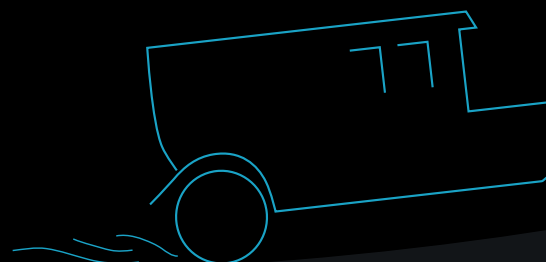
extraordinary consistency of delivery by companies such as TSMC, one of our longest standing holdings, and a company that unquestionably fits our definition of quality.

Financial analysis and an emphasis on stability are not enough, however, to fully capture what we consider the essence of a “quality” growth investment. Not only do quantitative metrics invariably draw the eye towards the past, but an obsession with stability can be dangerous too. There is great value in a business that can weather economic storms over many decades, but stability for stability’s sake is a dangerous ambition. Yesterday’s stable profit growth may betray a lack of investment that dooms a business to disruption and decline tomorrow.

bought for

£1k

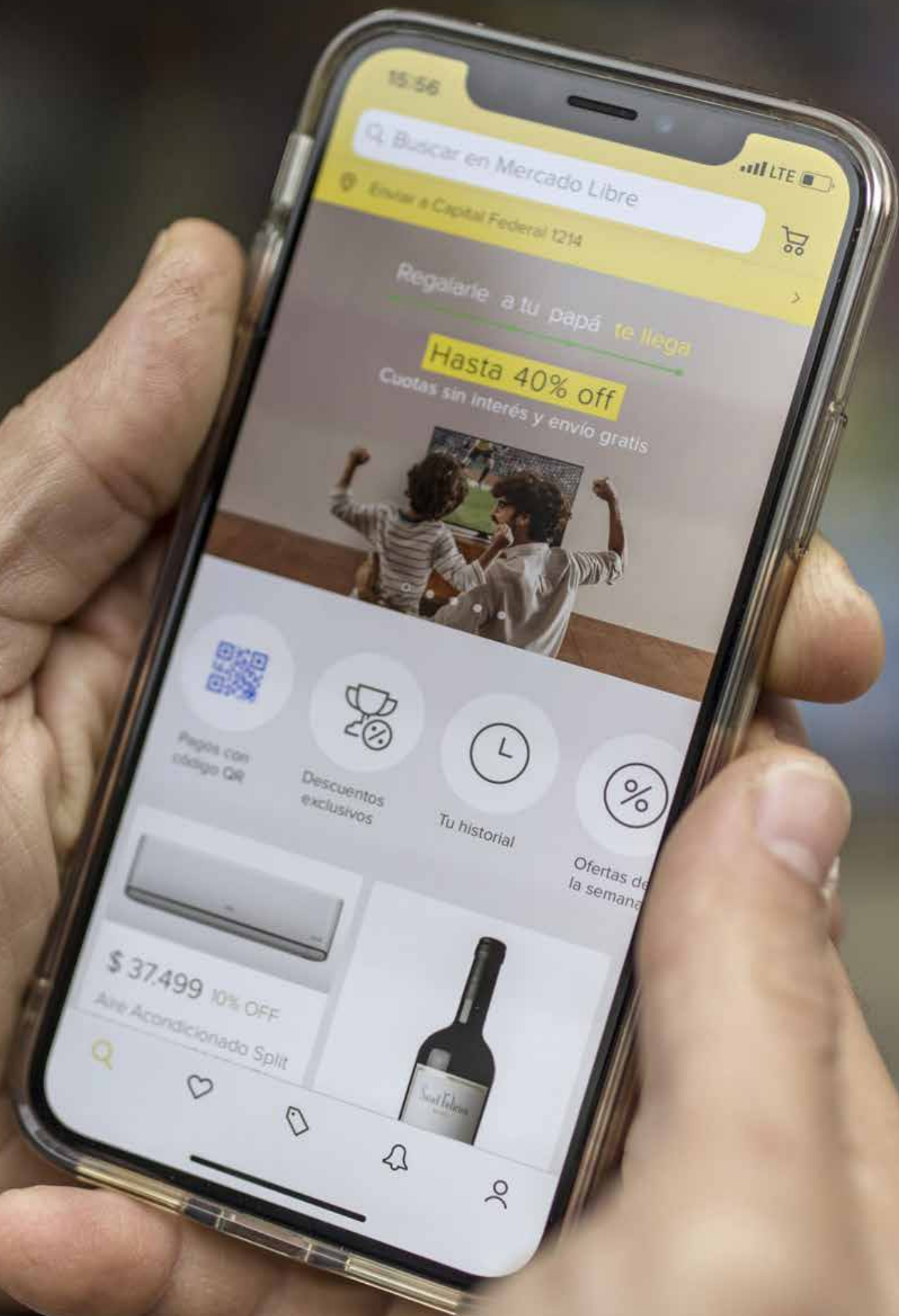
1912





Rolls Royce
100 years

The phrase “quality will remain long after the price is forgotten” is attributed to Sir Henry Royce, founder of the Rolls Royce motor company. Were he still alive he might be pleased to know the enduring quality of his vehicles is still appreciated nearly a century after his death. As a case in point, in 2012 a Rolls Royce Silver Ghost bought for £1,000 in 1912 was sold in auction for £4.7m – nearly 50x the return general inflation would have delivered over the same period.



WHAT MATTERS IS LOOKING BEYOND

Ultimately, for long-term investors it is crucial to look beyond quantitative metrics. While characteristic of many great companies, on their own they prove poor predictors of future investment returns. Reported financial metrics tell us how things were, rather than how they are going to be. They may help in identifying past winners, but not necessarily the long-term winners of the future and certainly not the emergent winners that defy traditional definitions of “quality”.

Quality enterprises of the internet age, for example, are particularly poorly served by traditional quantitative definitions and accounting methodologies. The great growth businesses of yesteryear may well have required physical assets to support their upward trajectory. Assets such as factories would have been capitalised and expensed gradually to the profit and loss account, stabilising earnings and enabling profits to be reported far earlier in a company’s development. The equivalent investments of the internet age are far more likely to be intangible.

Take advertising to establish brand identity and providing services at a loss. The future value creation of entrenching online platforms in this way can be vast, yet the short-term financial outputs look ugly to the quants, as Mercadolibre and Scout24 testify. These two holdings contribute more to the earnings growth volatility of the International Alpha portfolio than any other. More, in fact, than the next six holdings combined. Would the “quality” of the International Alpha portfolio be improved by these companies reining in spending and managing to a margin target? Certainly not.

INPUTS DRIVE OUTPUTS

A quality growth investment is defined far more by its inputs than it is by the financial outputs that anyone with a Bloomberg terminal can screen for. Identifying inputs is where in-depth fundamental research adds greatest value. Quality growth investments have the opportunity to grow over many years but they also need the ability to withstand pressure from competitors attracted by the same opportunity and to keep going through inevitable setbacks. Finally, they need the execution skills to capitalise on their circumstances, to create new opportunities and to adapt to emergent threats as the world changes around them.

While the growth aspect of an investment case invariably focuses on opportunity, the elements that define quality depend more heavily on ability and execution. We ask: What is a company's competitive advantage and why will it endure? How resilient is its operating and financial model to unexpected disruptions, whether internal or external? Is there something special about the management or ownership of the company that makes it more likely success will be sustained? Only by addressing these questions and gaining insight on these qualitative inputs can we hope to understand whether the quantitative outputs of a business are likely to endure or improve over our expected holding period.



COMPETITIVE ADVANTAGE

Competitive advantage is the defining factor between a company that grows and creates value and a company that merely grows. History is littered with great growth opportunities that made very few wealthy. Glittering prizes lost among a stampede of undifferentiated competition. Competitive advantage enables superior returns when the tide is rising and, sometimes just as important, can be the key determining factor in surviving hard times to emerge stronger on the other side. These are the companies that we look to own.

Between 1997 and 2012 the semiconductor memory industry grew rapidly, yet according to McKinsey it generated cumulative economic losses of \$9.5 billion on cumulative revenues in excess of \$700 billion. Only when the industry consolidated around a handful of winners with clear scale and technology advantages, such as Samsung Electronics, did the balance shift. Between 2013 and 2017 cumulative economic profits were \$58 billion, despite that period including two years of industry recession.

Competitive advantage comes in enough forms to justify an entire book, however a few examples may be useful to demonstrate the point.

Novozymes has spent decades investing in research, development and manufacturing know-how. The outcome is dominance of its technology niche (industrial enzyme manufacturing), a technology advantage that is likely to endure for decades, and excellent financial returns. Ryanair makes no such claims on technology. It flies the same people on the same airplanes into the same airports as its rivals, yet with a business model whose entire focus has always been on removing all unnecessary cost. The result is a cost of operation that peers still find impossible to replicate and a business that in just 30 years has risen from nowhere to become Europe's largest airline. Finally, certain markets offer scale advantages that mean they have a natural tendency towards monopoly. Once leadership has been attained it can be incredibly hard to displace. This is true for many online business models, but is equally true of much more ancient enterprises, such as stock exchanges like Deutsche Boerse and Hong Kong Exchanges & Clearing. They trace their roots back to the 16th and 19th centuries respectively and, while not held for quite so long in International Alpha, it is no coincidence that they remain among our portfolio's longest standing holdings.

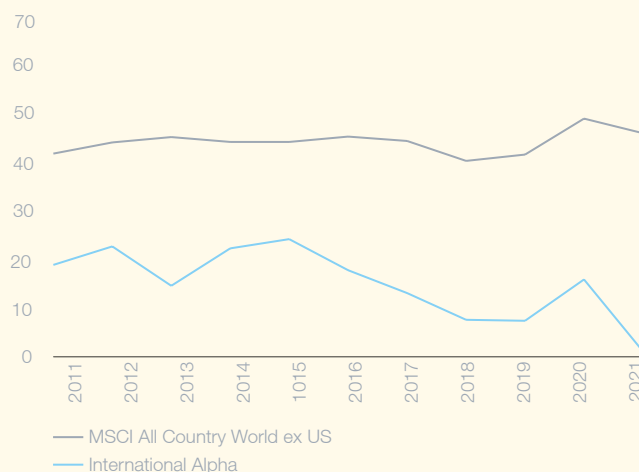
*Competitive advantage enables
superior returns when the tide is rising*

RESILIENCE

If recent history has taught us anything, it is surely that you never quite know what is coming around the corner. We claim no expertise in predicting cycles or pandemics, only a high degree of confidence that if we hope to hold an investment for five to ten years or more then disruption is inevitable at some point. Whether macroeconomic, microeconomic, regulatory or other, the ability to cope with said disruptions, and even take advantage of them, is for us a hallmark of quality.

Balance sheet strength is an obvious factor in business resilience and is commonly used in quantitative definitions of quality. All else being equal, high levels of gearing increase the chance of insolvency and reduce a company's flexibility to keep investing when times are tough. Though financial theory long extolled the doctrine that debt in a capital structure should lead to superior returns for equity holders, there is even evidence that the opposite may be true. The consistent preference within the International Alpha portfolio for companies with lower levels of debt certainly reflects an appreciation of such attributes.

Debt/Equity Ratio (%)



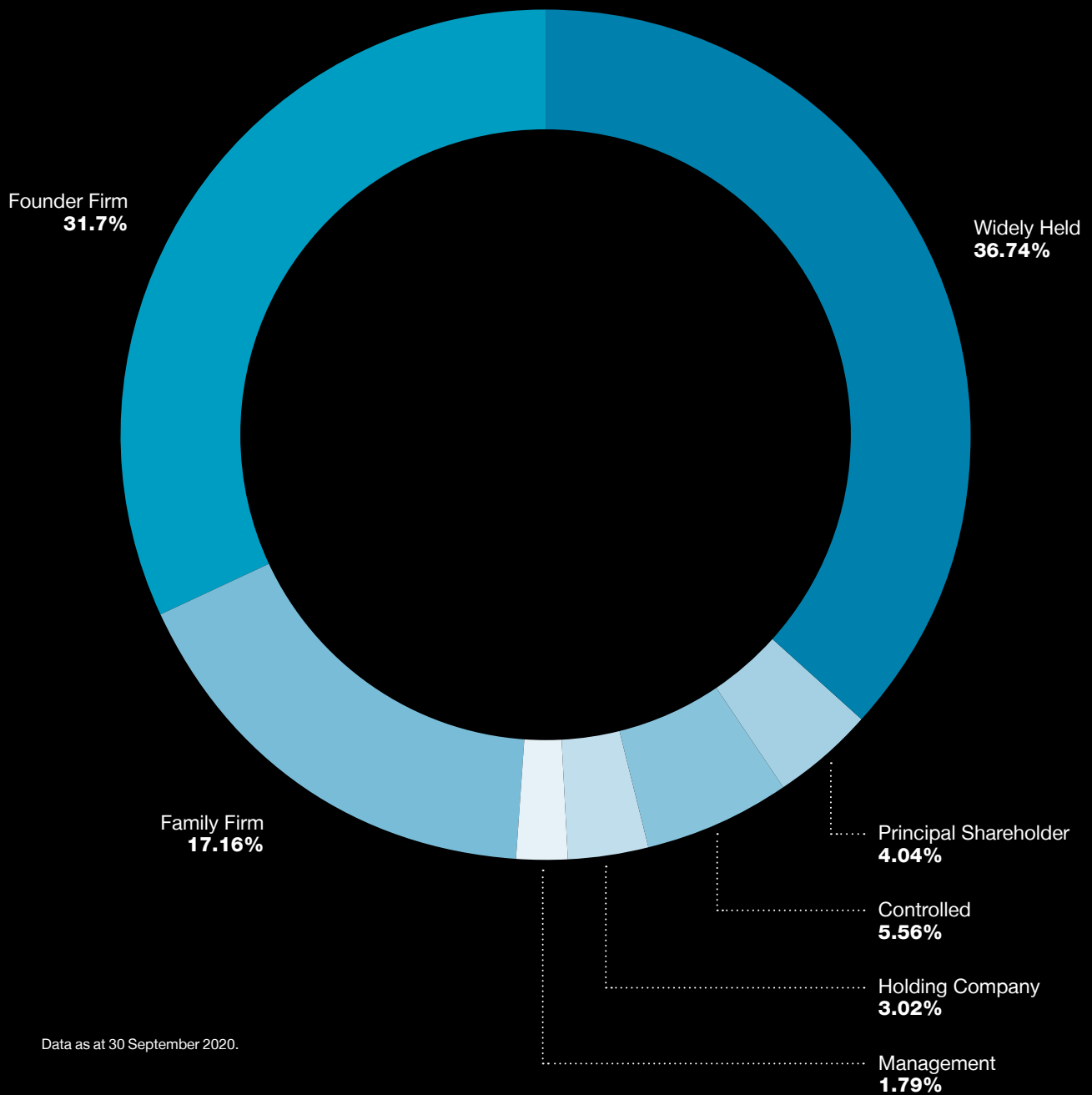
Source: Factset, Baillie Gifford & Co, MSCI. US dollars.
Based on representative portfolios.



The balance sheet is only one part of the picture, however. The operating and financial model can be just as significant, though harder to assess. A retailer and an industrial engineer might not be the first two businesses that spring to mind when thinking of resilience, but they illustrate why balance sheets might be just a part of the story.

The uniquely flexible and reactive supply chain model developed by Inditex, the world's largest fashion retailer, has enabled it to outgrow and out-earn its peers while expertly navigating the whims of mass-market fashion, the structural upheaval of high street retail and the recent global shutdown. Another example is Kone, one of the world's largest elevator manufacturers, the sales mix and manufacturing model are key. While new equipment sales are cyclical, the aftermarket servicing of installed equipment is incredibly constant and a capital light manufacturing model ensures great flexibility in its cost base.

Addressing the challenge of long-term alignment



Data as at 30 September 2020.

STEWARDSHIP

The attributes described above go some way to determining the ability of a company to deliver great outcomes, but they miss out on arguably the most important input. We have great sympathy with Warren Buffett's famous advice to buy stock in businesses that are so wonderful that an idiot can run them. Because sooner or later, one will. That said, we'd rather avoid such a scenario if we can. We believe how a company is run, who runs it, who owns it and how alignment is created between long-term shareholders and those in control are vital ingredients to long-term success and are therefore intrinsically linked to any assessment of quality.

We believe 'quality' stewardship is defined by the strategic vision and bravery to stay one step ahead of the game, the prioritisation of long-term value creation over short-term profit maximisation, the balanced consideration of all stakeholders in decision making and the delivery of sustained operational excellence. These factors don't only contribute to the existence of superior financial returns but are intrinsic to their sustainability. They can, however, be fiendishly difficult to identify from the outside.

In the case of longstanding management teams, such as Peter Wennink and Martin van den Brink at ASML, excellence may be evidenced by the outcomes delivered over multiple decades. Not every company is blessed with such leadership, however. With our holding period comfortably exceeding the average tenure of a CEO, we are often obliged to look more deeply for reassurance that the companies we invest in will be run in the best interests of long-term shareholders.

The issue of alignment of interests is one of the great challenges of modern-day capitalism. Strong governance structures, well-devised remuneration schemes and large management shareholdings can help, but one of the best ways to overcome this challenge is simply to invest alongside the founders of a business or their descendants.

We believe the presence of visionary founders, such as Marcos Galperin at Mercadolibre, Shigenobu Nagamori at Nidec, Pony Ma at Tencent and Piet van der Slikke at IMCD, has been instrumental in the long-term success of these businesses. When founders move on, substantial equity ownership by their descendants can still have significant beneficial effects, as can meaningful ownership by similarly long-term institutions such as holding companies and foundations. These ownership structures provide professional managers at Kuehne + Nagel and Chr Hansen with the stability and support to think about their businesses in terms of decades rather than quarters and invest accordingly. In a world where the average shareholder sticks around for just one year that stability and support is a considerable luxury.

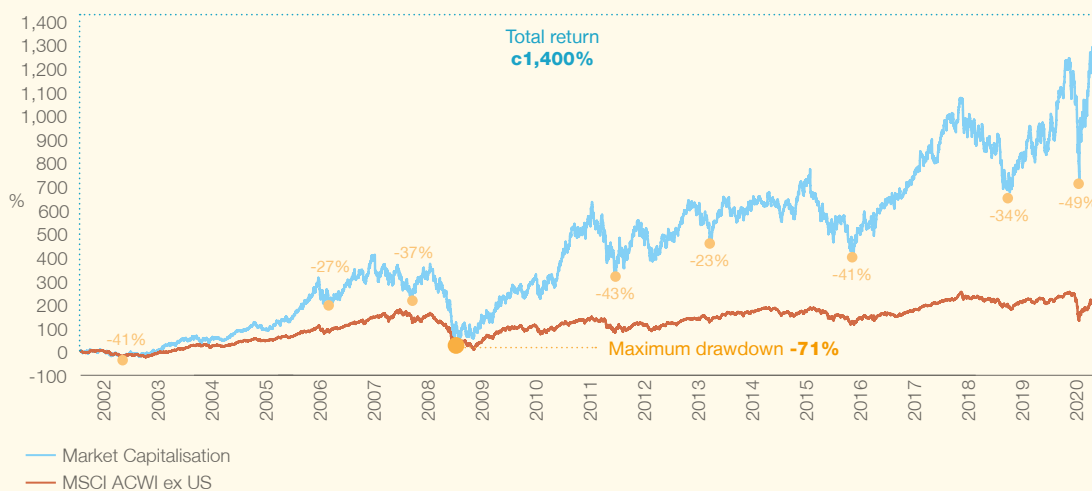
The attractions of shareholder structures such as these explain why companies that enjoy them form nearly 60 per cent of the International Alpha portfolio. Companies like ASML, without such ownership support but run by executives with over a decade of leadership at the company to judge them by, also form a significant part of the portfolio.

COMPOUNDING EXCELLENCE

Our goal as quality growth investment managers is to allocate capital and let the power of compounding take over. Traditional financial theory tells us we should expect a reversion to the mean for businesses that enjoy supernormal margins or returns, yet empirical evidence suggests this is not the case for all companies. How else, after all, could fewer than 4 per cent of all stocks account for all the value created by the US equity market between 1926 and 2015 and fewer than 1 per cent of all stocks account for all the value created in the international equity universe between 1990 and 2018? Much of this relates to the compounding effect of growth delivered over many years and the ability to do precisely that invariably comes down to the softer factors that we identify as the true definition of quality.

Where companies can combine a good number of the quality factors we have described, the outcomes can be extraordinary. For example, one portfolio holding, Sweden's leading industrial engineering business, is still thriving 148 years after foundation and 19 years since it was bought at the inception of our strategy. The quantitative outputs are hugely impressive but this is the output of, among many other things, a supportive shareholder structure, a capital light and cash generative business model, sustained investment in industry-leading innovation and a willingness to make bold capital allocation decisions. The same could be said of many of the names mentioned above.

When quality and growth combine



Since 2002, Sweden's leading industrial engineering business has experienced declines in market capitalisation of over 2 per cent on nine separate occasions, the most extreme of which being a 71 per cent decline in 2008. Despite these bouts of volatility, over the same period the company's market capitalisation has increased in value by approximately 1,400 per cent.

Source: Baillie Gifford, MSCI.

CONCLUSION

In 1964, the average lifespan of an S&P company was 33 years. By 2016, it had fallen to 24 years and at the prevailing rate of decline was forecast to fall as low as 12 years by 2027. Our challenge as long-term investors is to find companies that can buck this trend. We look for growth opportunities that are sufficiently large and long in duration to enable us to look through business cycles and we look to companies that can exploit those opportunities thanks to the quality that they possess.

It is no coincidence that the median holding period for the International Alpha investments named in this document is 10 years. Our focus on quality is intrinsically linked to our desire to entrust client capital to companies that can be held long enough to allow the wonder of compound growth to take over. The danger is in thinking that quantitative outputs are the sole arbiter of quality and not appreciating these outputs are only possible when the right inputs come together. Our role as active equity managers is to invest the time and effort to understand those inputs, to look beyond the easily identifiable historical outputs and in doing so create value for our clients over the long term.

Human spirit is the ability to face the uncertainty of the future with curiosity and optimism. It is the belief that problems can be solved, differences resolved. It is a type of confidence. And it is fragile.

BERNARD BECKETT



THE IMPORTANCE OF FUNDAMENTAL RESEARCH

BY JENNY DAVIS

A TRIP TO ASIA

Growth investing is an inherently optimistic pursuit. To invest in growth is to say that society will achieve more tomorrow than it does today. It requires ‘the ability to face the uncertainty of the future with curiosity and optimism’, as the novelist Bernard Beckett put it. Curiosity should be at the heart of all good investment research. Research should both dream big about the future, and provide detailed examination of today; it should be considered, reflective, insightful. Spending time to get to know a company, its business model and management is critical to understanding its long-term potential.

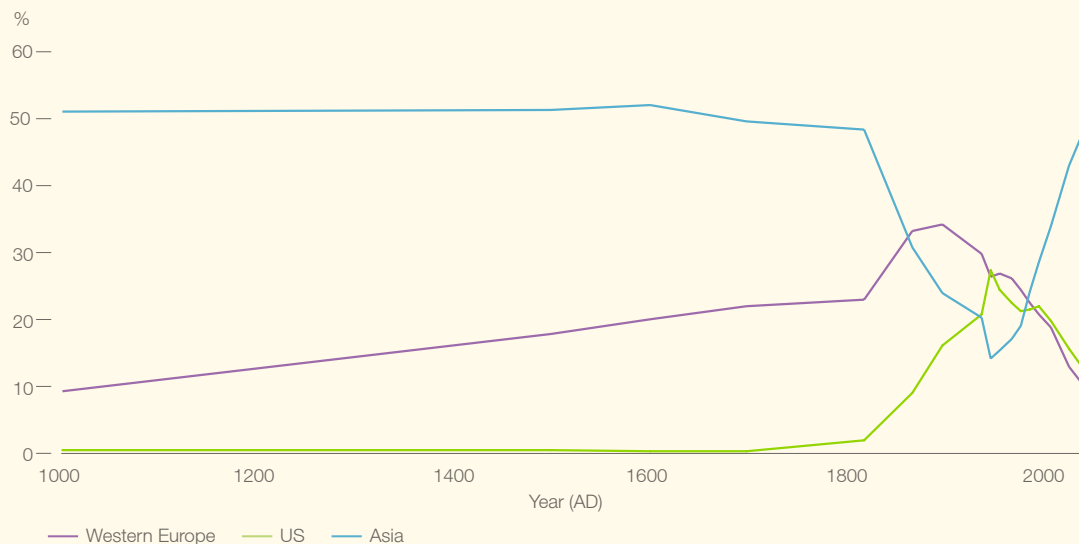
That is what fundamental research is all about at Baillie Gifford. We start from the ground up, choosing our investments according to the strength of the opportunity irrespective of domicile or weighting in any index. We believe this gives us an advantage, particularly where markets are too short term in their outlook, thereby incorrectly pricing the potential for long-term value creation. It was this belief in the value of fundamental research that led me to spend a few months in Asia on an extended research trip. Those of us willing to think differently in this region can find significant opportunities. We consider where and what those opportunities are, and how by generating our own fundamental investment research we are well-placed to take advantage of them.

THE CHALLENGE AND THE OPPORTUNITY


The investment industry faces a challenge. Most of the money is managed in the West, yet an increasing proportion of investments are likely to be in the East. Of the \$18 trillion in global equity funds, 72 per cent of it is US-domiciled and 20 per cent European-domiciled. Yet Asia is home to half of the world's population, and almost all its growth. Asia is of huge importance already to global companies, accounting for nearly 45 per cent of revenues made by companies in the international benchmark. We will see even more Asian-domiciled businesses springing up: three-quarters of the world's family-owned firms worth over \$1 billion are in Asia, and many of these will seek public listings as first-generation wealth exits. The region is forecast to be larger than all the other regions combined in 2022 on purchasing power parity GDP.

The geographic concentration of who runs the money is an aberration of history. Our industry was born in 1822, when King William I of the Netherlands launched the first closed-end investment companies. The goal was to finance industrial expansion of the Low Countries amidst the first industrial revolution. The chart below, built from the wonderful Angus Maddison's huge economic data project, gives some context to that moment in time. Over the past millennium, it is Asia that has dominated global GDP, apart from a blip following the industrial revolution when that world order was temporarily upended. And it is towards Asia that we can expect heads to turn again now.

Share of world GDP as purchasing power parity



Source: Actuals to 2010 (source: Angus Maddison data base, Economist Intelligence Unit); 2030 and 2050 are EIU and author forecasts.



*...it is towards Asia that
we can expect heads
to turn again now*

However, there are several behavioural biases which make it difficult to embrace the opportunity this presents. Our industry involves a lot of white, middle-class, Western managers running portfolios for pension boards of similar demographic profiles. That can give rise to insularity and home bias, leading to more research being written on the familiar companies in Europe and America than on lesser known businesses in Asia. No-one looks silly writing a report on IBM; there is a lot more personal risk in making a call on a completely unknown stock where the range of possible outcomes is much wider.

We are fortunate at Baillie Gifford to be able to do things a bit differently. The company's first investments in 1908 were in Asia. We saw the growing demand for automobiles in the West, but realised the interesting investments were in the East, in the supply of rubber for tyres. I believe we can continue to be at the forefront in the region today. The stability of the firm, the long tenure of staff, and the holding periods of our portfolios enable us to take time to think about where we can really add value over the long term. Our view is that we can add significant value for clients through fundamental research in markets which exhibit inefficiencies.

FROM THE GROUND UP

This belief in fundamental research led me to spend a few months on an extended research trip based in Hong Kong earlier this year, with an intention to research Developed Asia and Mainland Chinese companies. It was a particularly interesting time to be there, as the political climate became progressively febrile. Protests were springing up against the proposed Extradition Bill, throwing into sharp relief the changing power dynamics between Hong Kong and China. Hong Kong represented nearly 30 per cent of China's GDP in 1993, but that proportion has steadily declined. Now it is only 3 per cent, due to the rapid economic growth of Mainland China. It is no surprise, therefore, that Mainland China has been an increasing focus for the investment community.

China is vastly under-represented in the investment world: it generates 20 per cent of global GDP and yet domestic stocks only represent around 1 per cent of the world index.

However, we are at a very early stage of developing mutual understanding between Mainland Chinese businesses and long-term professional Western investors. Few Chinese companies have an annual report in English, and the level of disclosure in those reports is inconsistent and typically poor. Common sources of information, fact-checking, and discourse are either absent or have compromised independence. There are idiosyncratic complications such as separated economic and legal entities, costs of doing business that do not appear

in listed financial statements, and state ownership which makes the competitive field uneven. One must be extremely thorough in examining data. For example, the historical financial statements of one healthcare company I researched when in China did not refer to healthcare at all! They actually referred to the sale of motorcycle parts business by an accident of its listed entity. Not only is reliable information sparse, but the A-share markets contain some of the most volatile, highly-levered, poorly governed stocks in the world, with a nasty penchant for diluting minority shareholders, and an average investor holding period half that of the global average at only around six months.

Fear not, for therein lies the long-term opportunity for fundamental research. There will be a small number of less-discovered, mispriced gems for investors willing and able to put in the time for thorough analysis. We find that earnings drive share prices over the long term, and that this correlation strengthens as the holding period of investors increases. Our fundamental analysis, therefore, focuses on long-term earnings potential. A good investment is in a company that can weather storms and take advantage of market cycles or unforeseen events, getting stronger as the time passes. To achieve that, there needs to be a reason why its revenues and profits will grow, it must have a durable competitive advantage, and its management must be aligned with the long-term success of the business.



We find several Chinese companies which meet our criteria for further work, and my time in the region was the perfect opportunity to dedicate time to understanding them within their home context. China is a country of such magnitude and relative homogeneity that businesses can achieve things seemingly impossible elsewhere, such as the monetisation of a vast number of very small transactions. This was abundantly clear from the companies I met while there. China's leading food delivery platform delivers the largest number of lowest value food orders in the world; in cities it is often cheaper to have food delivered than to make or buy it yourself. Its leading e-commerce platform can process a phenomenal \$30 billion of orders in a single day, with each order only ~\$30 on average. Its largest payments platform has 900 million users, nearly triple the entire American population, making high-frequency small-ticket transactions. Because of this ability to monetise small interactions at scale, we see totally new business models cropping up. For example, who would have guessed that China's largest online music platform makes most of its profits from users spending around \$1 a month to do things like send virtual rotten eggs at a fellow user's particularly bad karaoke performance? There are ways of doing things that are totally different in scale and scope which the fundamental analyst needs to understand from the bottom up.

Much as Baillie Gifford's first investments were not in Western cars but in Asian rubber, we look across sectors and regions to find the best-placed businesses. In China, there is a huge unmet need for better healthcare: a vast range of diseases are under-diagnosed, and reimbursement is low with nearly 40 per cent of costs



being met out of pocket. It is to insurance that we look for some of the best-placed businesses to meet this growing demand for healthcare. Insurers fill the gap of health, life and critical illness cover that the State is unwilling to cover. Moreover, there is a hotbed of innovation here, ranging from wellness schemes to incentivise healthy behaviour and thereby

lower insurance claims, through to AI-powered online diagnoses and prescription purchases which reduce the need to visit the hospital. This innovation is often evolving along quite different paths from those of Western businesses, and often doing so far more rapidly.

WHAT IS RESEARCH BUT CREATIVITY?

How do we go about this research?

At Baillie Gifford, there are two steps in our process. The first is to cast the net wide in reaching for data and differing opinions. We widen the net of information sources by, for example, consulting with academics who are outside the echo chamber of our industry and have different incentives driving their thought processes. Most recently, I have been communicating with an academic based in Shanghai on the sociological impacts of WePay and AliPay: these are more than simply tools for monetary exchange; they are methods of ascribing social credit to an individual's character, and that has huge implications for the fabric of society. We seek diverse opinions and lateral transmission of wisdom by, for example, inviting colleagues in other teams to our stock discussions in order to combine specific expertise with global perspectives.

The second step in producing good research is the hardest to pin down, because it is transmutation, turning today's information into tomorrow's insight. In his book, *Farsighted*, Steven Johnson describes the process of making complex decisions as running multiple mental simulations, imagining how the future will unfold. It is the same process one would undertake if writing a piece of science fiction, which is why Bernard

Beckett's quotation at the beginning of this paper is fitting, as it comes from a sci-fi novel. Steven Johnson finds that those people best at making complex decisions read a lot of novels. And we would concur, having actively hired a far higher proportion of humanities graduates than is typical of our industry.

It is highly worthwhile us investing now in building up our institutional understanding of high-quality businesses in inefficient markets. We are opening an office in Shanghai to be dedicated to investment research, populated by Baillie Gifford investors trained in Edinburgh, who also have local language skills and knowledge. This recognises both the magnitude of the opportunity and the specific challenges the region presents. We will certainly be judicious in how we invest our clients' money, and will have done thorough research in advance, but there are good reasons to be brave. Academic research indicates that the presence of long-term investors has a positive impact on strengthening governance and corporate decision making, as well as creating a more stable base from which companies can innovate, in turn delivering higher shareholder returns. We can have a positive impact on markets by participating in them, and on businesses in which we take holdings.



FUNDAMENTAL RESEARCH IS THE KEY TO UNLOCKING OPPORTUNITIES IN ASIA

Our industry faces a challenge: it will have to address its Western bias if it is to fully embrace emerging opportunities and deliver long-term outperformance for clients. To do that will require a firmly active and bottom-up philosophy. It is not sensible to become a passive investor in markets which have such patchy data. We assess the quality of a business model from the bottom up, and compare it globally through team-based collaboration, rather than simply buying a play on theme x or y and churning the portfolio to chase hype. Our competitive advantage at Baillie Gifford is having time to think. The stability of our firm, long tenures, deep institutional memory, and lengthy holding periods enable us to undertake thorough fundamental research. We believe that gives us the ability to explore a region abounding with opportunities.



An expert on experts

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GENERALLY SPEAKING

BAILLIE GIFFORD'S INTERNATIONAL ALPHA TEAM

In the run-up to the Brexit vote, a single soundbite seemed to sum up the mood of one side of the debate, and indeed of a much broader, international populism that rejected received wisdom on many things, from immigration to immunisation. Michael Gove, one of the leading Brexiteers, was repeatedly quoted as having said, "I think the people of this country have had enough of experts..."

Gove was derided by his opponents. How could anyone be so dismissive of expertise? As one of his Cabinet colleagues said, *"If you wanted to build a bridge, you would talk to expert engineers to make sure it didn't fall down."* Surely expertise was only becoming more important in our ever more complicated world? But Gove is one of the subtler, more intellectual Brexiteers and that perfect soundbite was created in part by the well-timed interruption of a skilled interviewer, for Gove had gone on to say that what he thought the UK had had enough of was experts, and particularly economists, *"from organisations with acronyms saying that they know what is best and getting it consistently wrong."* In this, he was, probably consciously, echoing the work of political scientist Philip Tetlock, ironically perhaps, an expert on experts.

Tetlock's work lays out one of the most fundamental problems with experts: for all their knowledge, they can't say anything very useful about the future in the areas of their expertise. For more than 20 years Tetlock ran a series of prediction tournaments, asking experts to make political and economic forecasts. On average, on most of the questions he asked, expert opinion did only a little better than guessing and actually did worse than simple algorithms that assumed the future would be no different than the present, or that the current rate of change would continue. The better-known an expert was, the less accurate their predictions. And the further out they were asked to look, the worse their performance became.

Tetlock did, however, identify a subset of experts who performed a little better than both chance and the simple algorithms. He called them 'foxes'. It wasn't that the foxes knew any more than the others. It wasn't that they had more qualifications or more experience. Rather, what marked them out was the way that they thought. For they were, in Tetlock's words, "*open-minded, careful, curious and – above all – self-critical*". Importantly, teams of foxes outperformed lone foxes. And by a good margin.

The foxes were in a sense multi-disciplinary, taking knowledge and insight from other people and from other academic fields rather than doggedly insisting on the primacy of their individual judgement or the purity of their own discipline. They understood that while we need to create a structure of specialisms and academic disciplines to help us handle the complexity of the

modern world and the ever-increasing flow of data it generates, the resulting silos, with their peculiar jargons, tribal jealousies and tunnel vision, need to be reconnected and reintegrated if we are to start to understand what is going on around us, let alone if we are to have any chance of glimpsing the broad shape of the future. Indeed, much of the most interesting and creative research, in both the hard and social sciences, comes when different disciplines overlap.

At first sight, Tetlock's emphasis on breadth over narrowness seems to contradict the work of another prominent contemporary expertise expert, Anders Ericsson. Ericsson's work has been popularised by the author Malcolm Gladwell, and most people who have heard of him associate him with Gladwell's coinage, 'the tenthousand-hour rule' under which it takes years of intense, gruelling, focused 'deliberate practice' of a relatively narrow set of skills to achieve mastery or expertise.

Ericsson, by the way, has taken issue with this characterisation, even caricature, and has said that: "*I see the core message as something else altogether: In pretty much any area of human endeavour, people have a tremendous capacity to improve their performance, as long as they train in the right way.*" In this at least he seems to agree with Tetlock who found that, among the foxes, by far the single best predictor of performance (three times as powerful as intelligence) was their 'commitment to self-improvement', a quality closely aligned with what Carol Dweck has called 'the growth mindset'.

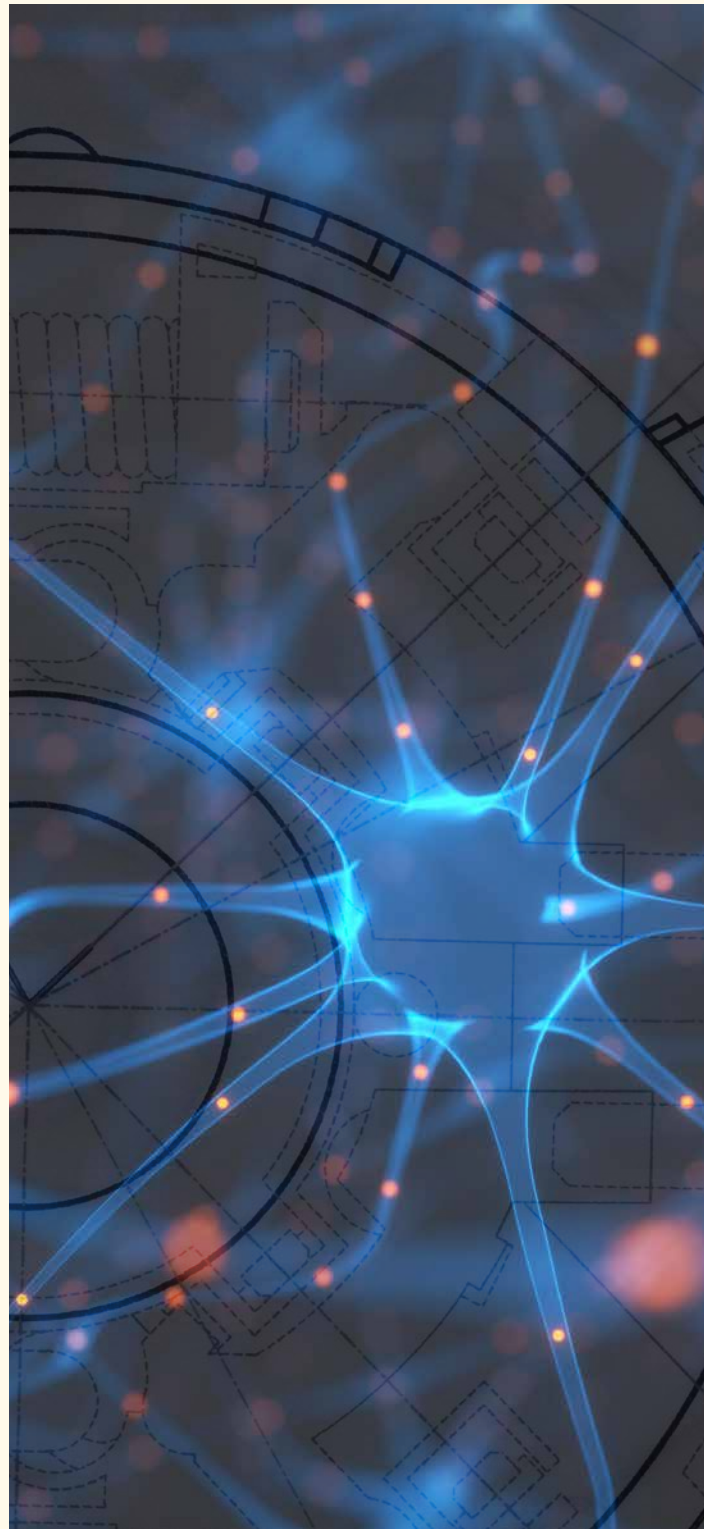
Importantly, teams of foxes outperformed lone foxes. And by a good margin.



But, for all that, Tetlock and Ericsson are at odds and mostly, I think, because their initial studies came in very different fields. Ericsson studied musicians and sportsmen, that is, performers who inhabit worlds that are very largely unchanging and really quite constrained, either by the physics of their instruments or by the rules of their game. By contrast, Tetlock was asking his experts to assess questions in areas where there are few rules and many interactions between actors. Deliberate practice just doesn't seem to work very well in these areas: one meta-analysis of 88 studies has found that it accounts for over a quarter of the variance in performance in games such as chess and around one fifth in music and sports, but, to all intents and purposes, none in the professions.

What, you may well ask, does any of this have to do with investment? Well, the world we deal with as investors is the world as a whole with all its complications, connections and change. This is the world Tetlock asked his experts to predict, not the bounded worlds of Ericsson's studies. It should perhaps come as no surprise that one of the greatest investors, Charlie Munger, is such a fan of breadth, curiosity and commitment to self-improvement: *"You need a lot of curiosity for a long, long time. You need a passionate interest in why things are happening."*

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Munger's commitment to reading is widely recognised. However, we haven't perhaps done full justice to the breadth of that reading. He talks of "making friends of the eminent dead" in all fields by reading their books. Bill Gates has described him as *"truly the broadest thinker I have ever encountered...Our longest correspondence was a detailed discussion on the mating habits of naked mole rats and what the human species might learn from them."* Munger argues that we should study a range of "mental models" from across the academic disciplines, principally from mathematics, engineering, biology, psychology, economics and history, and then use this extensive tool kit to approach investing issues. Otherwise, he says, you end up like the man with (only) a hammer, to whom every problem looks like a nail since *"the nature of human psychology is such that you'll torture reality so that it fits your [one or two] models, or at least you'll think it does."*¹

Arguably this approach is more relevant than ever because, even though narrow expertise is coming under assault from populists, checklists and algorithms, it is extraordinarily well entrenched. In universities around the world, breadth continues to be traded for narrowness.

In addition to the factors we've already noted, this trend is also driven by a belief that narrower, more obviously vocational courses prepare students better for the world of work. So widespread is this conviction that the journalist Fareed Zakaria has concluded that *"the irrelevance of a liberal education is an idea that has achieved that rare status in Washington: bipartisan agreement."* And this despite studies showing that humanities majors outperform biology majors in medical school admissions tests and beat business majors on the GMAT entrance exam.

1. A Lesson on Elementary, Worldly Wisdom as it Relates to Investment Management and Business, speech to USC Business School, 1994. Munger suggests that the Efficient Market Theory is the best example of man with a hammer syndrome with its "seductiveness to people with large mathematical gifts ... If you're good at manipulating higher mathematics in a consistent way, why not make an assumption which enables you to use your tool?", even if "the fundamental assumption [does] not tie properly to reality."

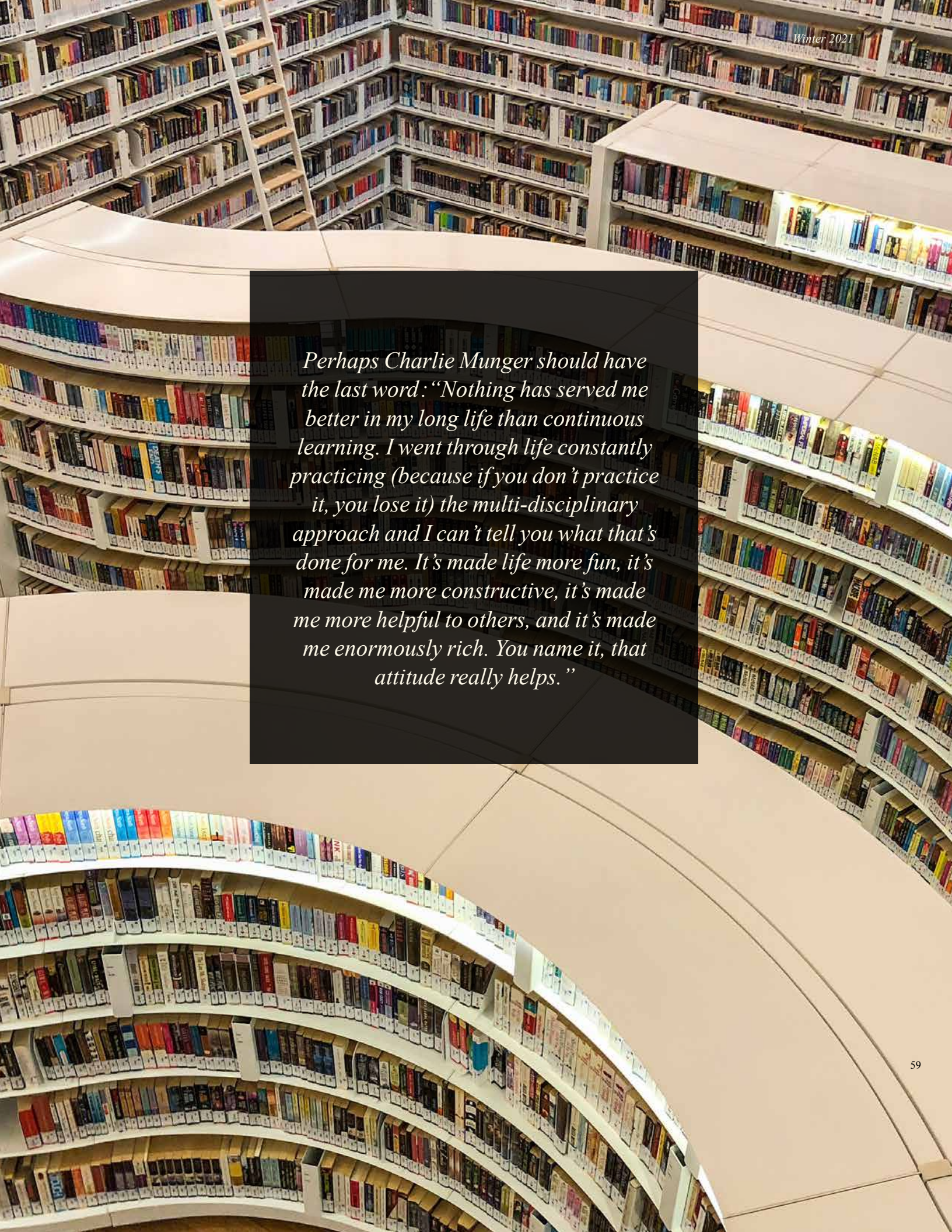
This drive towards narrowness means that those who take a broader view should have a greater opportunity than ever to produce differentiated results. And, in many ways, it is also easier than ever for those committed to breadth and self-improvement to pursue them. The sheer information overload that the Internet can produce, its revelation of how much we know as a species and how little of it we know as individuals, is in itself an argument for expertise. But it also means that it has never been simpler for the would-be generalist to seek out experts in all fields and learn from them, whether by exploiting Amazon's long tail of instantly available specialist books or by watching experts' lectures, listening to their podcasts and reading their academic papers.

We believe strongly in Munger's general curiosity, or curious generalism: one of Baillie Gifford's key taglines is 'Curious about the world.' We recruit entry level investors from a broad range of academic disciplines, with a strong preference for the broadest of those disciplines and a starting, but not absolute, prejudice against the more narrowly vocational. Successful candidates from whatever discipline will have demonstrated real curiosity and in many cases will have sampled a variety

of classes to broaden their knowledge and thus invest in themselves for the long term, rather than clustering their choices to achieve better near-term results at the expense of long-term wisdom. They generally read a great deal over a wide range of topics. An increasing number have pursued postgraduate degrees because they love learning but have abandoned academic careers because they fear their narrowness.

When they arrive at Baillie Gifford, rather than trying to make them 'useful' as quickly as possible by giving them a narrow specialisation, whether geographic or sectoral, we invest in them for the longer term by rotating them through four different teams in their first five years. More senior investors also change teams from time to time. Throughout their careers we encourage all our investors to escape the bubble of the financial world and to keep learning, whether from the books of the eminent dead, the lectures of the eminent living or the conversation of their (not quite so eminent) colleagues. While many of them will develop quite deep knowledge in some, usually quite eclectic, areas, we want them to be aware of how little they know even in those areas, and to remain global generalists at core.

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Perhaps Charlie Munger should have the last word: "Nothing has served me better in my long life than continuous learning. I went through life constantly practicing (because if you don't practice it, you lose it) the multi-disciplinary approach and I can't tell you what that's done for me. It's made life more fun, it's made me more constructive, it's made me more helpful to others, and it's made me enormously rich. You name it, that attitude really helps."

MEET THE TEAM



ANGUS FRANKLIN

Investment Manager

Angus conducts research for International Alpha Portfolios and became a Partner in 2012, having also worked in the UK, Emerging Markets and European Equity Teams since joining Baillie Gifford in 1994. Angus graduated MA in Social and Economic History from The University of St Andrews and qualified as a Chartered Accountant in 1992. After 27 years with the firm, Angus will retire from Baillie Gifford in April 2022.



TOM WALSH

Investment Manager

Tom is a portfolio manager for International Alpha clients and a member of the International Alpha Portfolio Construction Group (PCG). He joined Baillie Gifford in 2009, working on the UK, European and Global Opportunities Teams, as well as spending four years as a member of the International All Cap PCG. Before joining Baillie Gifford, Tom worked at Fidelity International, Merrill Lynch and Deloitte & Touche. He graduated LLB (Hons) in Law & Economics from the University of Edinburgh in 1999 and is both CFA and ACA qualified.



JENNY DAVIS

Investment Manager

Jenny is a portfolio manager for International Alpha clients, having been a member of the International Alpha Portfolio Construction Group (PCG) since 2016. She joined Baillie Gifford in 2011 and worked on two of our global equity strategies, having started her career at Neptune Investment Management. Jenny graduated MA in Music from the University of Oxford in 2008, and latterly undertook postgraduate studies in Psychotherapy at the University of Edinburgh.



CHRIS DAVIES

Investment Manager

Chris joined Baillie Gifford in 2012 and is an Investment Manager in the Europe Team. He graduated BA (Hons) in Music from the University of Oxford in 2009 and went on to gain an MMus in Music Performance from the Royal Welsh School of Music and Drama in 2010 and an MSc in Music, Mind and Brain from Goldsmiths College in 2011.



ANDREW STOBART

Investment Manager

Andrew Stobart has been an Investment Manager in the Emerging Markets Team since 2007 and sits on the Emerging Markets All Cap Portfolio Construction Group. Andrew has also been a member of the International Alpha Portfolio Construction Group since 2008. Since joining Baillie Gifford as an Investment Analyst in 1991, Andrew has worked in the UK, Japanese and North American Teams. Prior to joining Baillie Gifford, Andrew spent three years working in Investment Banking in London. Andrew graduated MA in Economics from the University of Cambridge in 1987.



DONALD FARQUHARSON

Head of Japan

Donald heads the Japanese Equities Team. Donald is the co-manager for the Japan Growth strategy (and related All Cap strategy segregated accounts) which he has run since its inception on 31 December 2009. He is also a member of the International Alpha Portfolio Construction Group (PCG). Donald has over 25 years' investment experience dedicated almost entirely to Japanese equities: He spent 20 years working for Schroders as a Japanese specialist and latterly Head of the Pan Pacific equity team and manager of the Schroder Japan Growth Fund plc. Between 1991 and 1995, he headed Schroders' research team in Tokyo. He graduated with MA (Hons) in Arabic Studies from the University of St Andrews in 1987 and is a CFA Charterholder. Donald joined Baillie Gifford in 2008 and became a Partner in 2017.



TOBY ROSS

Investment Manager

Toby is Co-Head of the Global Income Growth Team and has been a member of the International Alpha Portfolio Construction Group (PCG) since 2018. Since joining Baillie Gifford in 2006, Toby has also spent time as an Investment Analyst in the UK Equity Team and as a Global Sector Specialist. He graduated MA in English Literature from the University of Cambridge in 2006 and is a CFA Charterholder.





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CURIOUS ABOUT THE WORLD

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