

Disruption Week 2024

The age wave: investment trends for an ageing society

November 2024

Watch our Disruption Week conversation to learn about firms improving our health and mental fitness, those pioneering new ways to treat chronic diseases including Alzheimer's and diabetes, and the rise of robots filling gaps in the workforce.

Your capital is at risk.

Leo Kelion (LK): Welcome to this *Disruption Week* briefing on the age wave. I'm Leo Kelion, and I'm joined by investment manager, Abbie-Louise Gilbert, to discuss the topic of people living longer but having fewer children, and the companies poised to seize advantage of this seismic demographic change. Abbie, thanks for joining me.

Abbie-Louise Gilbert (ALG): Thanks for having me. It's great to be here.

LK: So, let's start off. Can you give us an idea of the scale of the challenge and opportunity that the age wave creates?

ALG: Sure, I think a good place to start is by understanding what the age wave is. And when I talk about the age wave, what I'm referring to is a major demographic shift which is occurring, which will significantly change our social fabric over the next decade.

When many people think about the future and they think about the biggest change that will happen, I think the most common things they think about is climate change or AI.

But I believe that the age wave is as momentous, and because it tends to occur quite slowly, it's potentially being overlooked when most business leaders and politicians think in four- to five-year cycles rather than the decades-long time frame which we apply at Baillie Gifford.

To tell you about the scale of the age wave, I think I'll throw in some stats. So last year in the UK, there were more deaths than there were births. In Japan, there were more adult nappies than children's nappies sold.

Now, the UN predicts that by 2030, one billion of us will be over 65 years old. By 2050, this will have increased to nearly two billion, at which point one in five of us will be considered elderly.

Now, what's the challenge? Many of us would assume that longevity is one of the greatest successes of the 20th and 21st century. And while that's very much the case, and I don't need to go into the obvious reasons why living longer is a positive thing, more recently, there's been less evidence that we're living happier or healthier lives. And in fact, with this simultaneous drop-off in global birth rates, I think there's reasons to think twice. Populations will shrink, productivity could be challenged. What can we do about these things? Well, the purpose of this talk, I'd love to talk about the opportunities that these changes throw up and the exciting companies who are trying to solve them.

LK: And you and your colleagues do a lot of travel to get deep knowledge of the companies that you invest in. Where have you been where you've seen this ageing dynamic having the most impact?

ALG: Yes, that's right. It's one of the best parts of the job. And just last year, I was in Japan. It was a fascinating time to be there. I met lots of exciting businesses and there was a real sense of renewed enthusiasm in the Japanese equity market at the time.

But what really struck me was the aging population. Now, this was evident not just in parks, in restaurants, but in management meetings and across management boards. And what was really noticeable was that these elderly people were thriving. They were working. They were fully integrated into a very intergenerational society. And it was something really different from the culture I'm most familiar with.

In terms of the lessons I learned, there's probably three which really stood out. The first is that there was no stigma around old age. Before I went to Japan, I sort of looked at data on the boards and saw men and women in their 60s, 70s, even 80s, and thought, how does that work?

But when I was there, the people I met were thriving, they were making excellent decisions, and it was a very normal part of business life.

The second of all was how seriously the Japanese companies I met were thinking about longevity. They were very aware of the demographic shift that had been taking place, and they thought in very long-term horizons about the change.

In terms of succession planning, this would be considered up to 10 years before the change would happen. And finally, and I think most excitingly, and what will hopefully become the purpose of this discussion, is the innovation and the signs of adaptation that were coming out of Japan.

I don't think it's a coincidence that one of the most top-heavy societies in the world is also one of the most advanced at responding to these challenges by integrating things like robotics and automation into everyday life.

LK: I hope we get to come on to some of those companies that we've invested in in Japan. But before we do, when you're looking at this topic, what are the themes that help you identify the companies that you think can achieve strong long-term growth in an aging society?

ALG: I mean, there's so many themes that will be affected by this topic, everything from insurance to leisure, travel. I think the ones that are most exciting for us at Baillie Gifford include preventative wellness, the idea that we can invest in solutions which will help people live healthier lives today and save healthcare costs down the line.

The second would be aging healthily, by which I mean accepting the inevitability that more people will be older and disproportionately affected by diseases, which the elderly just tend to struggle with more. What can we do about that?

And finally, and the most exciting, I believe, is automation and productivity, using things like robotics to bridge the inevitable productivity gap, which happens when workforces shrink.

LK: Okay, let's explore those themes in more depth then. Starting with preventative wellness, can you give me an example of a holding that's helping people stay fitter for longer?

ALG: Yeah, there's again, plenty of examples here. But one I'd love to mention is Danone. Now you might know Danone for its yogurts. But what you might not know is that it's been undergoing quite a momentous turnaround, which has seen the portfolio be repositioned while also trying to capitalise on some of the themes related to the age wave.

There are two ways in which it's doing this. The first is the virtue of its portfolio, which is innately healthy. It's the healthiest amongst peers, and over 90 per cent of its products are considered low sugar, fat, and salt.

This not only feeds into trends of preventative wellness and people wanting to live healthier for longer, but also if governments or other agencies start to create policies which restrict or penalize those with unhealthier products, we believe Danone is very well positioned.

The second refers to Danone's medical nutrition business, which is a third of its sales, but over half of its profits. And we see this as a bit of a hidden gem. This business applies Danone's expert understanding of medical nutrition and the gut microbiome and applies it to the health sector.

Its main product is nutritionally complete formula, which can be fed to elderly people through a tube or as a drink for those who've undergone cancer therapy or who just struggle to swallow in their old age.

LK: And have you had the opportunity to see its operations up close and in person?

ALG: I have, earlier this year I actually travelled to Utrecht where I went to visit their R&D centre and it was a brilliant visit and I was really struck by the innovation and the science which has always been at the heart of Danone. It was actually founded as a company whose products were prescribed in chemists to be given to patients who were taking antibiotics to help them with the side effects.

They're now returning to these roots, and they've developed an extensive enzyme library, which they're using not just to improve the taste of their products, but also to ensure that they're healthier [and] providing more benefits.

I was able to try a recipe of yogurt made using the 1950s formula, and it was sour, runny, really not enjoyable. I then compared it to one they would sell today, much creamier, much more indulgent, and actually more healthy too, given the variety of microbes that have now been added.

LK: Tasty and healthy, that's a good combination.

ALG: It's a win-win.

LK: Looking at the company's management, this is a company that's very much in turnaround mode. In your conversations with its chief executive and other senior leadership, what's impressed you?

ALG: So the CEO himself is incredibly impressive. He is very disciplined and he's focused on consistency and doing things properly.

He's also had a phenomenal track record during his career, most recently at Barry Callebaut, a chocolate producer, where he was known for not only driving performance, but also creating a sustainability agenda, which was genuinely financially effective and very forward thinking in that respect.

But what really struck me was the quality of the wider board and more extensive management team that I was able to meet. The market seems to think that Danone is still suffering a talent drain, something which it did experience over the last decade when impressive people left when performance was bad.

But it's something that has really changed and which I don't think the market has noticed just yet. The board at Danone has been entirely rejuvenated. It's hired executives from the likes of Unilever, from P&G, from Sanofi, from Diageo.

These are high-quality people making high-quality decisions. And at Baillie Gifford, we pay a lot of attention to the quality of boards, and we really believe that quality boards will make quality decisions, and that will lead to improved performance over the long term.

LK: So that's Danone. Can you give me an example of another preventative wellness company that's maybe not in food?

ALG: Yes, another company which I recently met as well and we have a holding in is called Technogym, which you might know, but Technogym is known for its high quality gym equipment. This equipment is not just durable and highly aesthetic, but it's also proven to drive performance and engagement due to its amazing digital ecosystem, which is truly interoperable with other fitness devices.

The investment case for TechnoGym is twofold. There's the structural trend. So we have more people being more willing to spend more on healthier lifestyles. And by people, I don't just mean the likes of you and I going to gyms. I also mean corporates realizing that better fitness improves productivity and general wellness, but also hospitals who really benefit from the data forward approach of TechnoGym to help their patients recover from rehab very quickly. The second element is that Technogym is one of the few players with scale and with the cash to really invest in R&D and push the industry forward while differentiating itself amongst competitors.

LK: And this is a company with a founder who's very dynamic, very long-term in his thinking, which I know we like. And they're based in North Italy. You said you spent time with them. Can you tell me what that was like?

ALG: Sure. And you're absolutely right. The founder is a real visionary. He built this business in his 20s and he's still around today and wants to change the world with the view that exercise is medicine. He also has a big stake in the company, which shows real alignment. Again, something we're really focused on at Baillie Gifford. During my visit, which was in September, I again was really struck by the innovation. This is a company which I think many people wouldn't know, but actually invented the first wearable device in 1996. It put the first heart rate monitor on a treadmill. And now it's one of the first large fitness companies using AI to help design performance programs and create equipment which is adaptive, meaning it responds to your own body weight and performance.

One of the things, or just a really interesting anecdote I had from the visit, was that TechnoGym, which is a sponsor of the Olympics and has been for many years, not only sends its devices to the Olympic village, but also collects them and spends up to a month after the Olympics analysing all the anonymised data and working with a select group of athletes to really understand what worked, what didn't work and how they can improve their machines to drive performance even further at the next event.

LK: So TechnoGym's focus is connected fitness, but it's quite a different beast to Peloton, isn't it?

ALG: Yeah, it's a totally different business. The main reason why is that this is a B2B firm. And what that means is that Technogym sells its products to businesses. Its main customers are gyms, corporates, hospitality and hospitals.

And within these customers, they not only have much higher pricing power, they have better visibility and they have far less volatility because it's less affected by consumer spending cycles, which Peloton might be vulnerable to.

Second of all, this is a much more diversified business. This isn't just cycling machines. This is treadmills, rowing machines, strength equipment, and an entire digital ecosystem, which brings everything together and creates a truly holistic experience for the user.

LK: Okay, let's move on to ageing healthily. Can you tell me about a holding that's taking a pioneering approach to an age-related condition?

ALG: Yeah, I think for this question I'll return to Japan again and I'll talk about Alzheimer's. As I'm sure you're aware, Alzheimer's is a disease which almost exclusively affects the elderly. And as populations continue to age, that incidence is only going to increase. In fact, there are 48 million people with Alzheimer's today.

That's expected to increase to over 100 million by 2050. Historically, this disease, which is one of the most devastating we know, has been incredibly difficult to treat. Success rates in clinical trials are less than 1 per cent. This year, however, for the first time in history, we had the approval and full reimbursement of a drug which can help treat those with Alzheimer's.

This drug doesn't reverse the condition, but it does materially slow its course by approximately 30 per cent, meaning that for patients for whom it's suitable, the quality of life and the number of life years they have could materially improve too. The company which developed this drug and brought it to market is a Japanese one called Eisai.

It started investing in Alzheimer's almost 20 years ago when many thought it was too hard and too costly an opportunity to go after. It took the science which was originated by a small European company, and it worked with another US firm to commercialize it.

But we like Eisai because we believe its position in this value chain is being somewhat overlooked, but also because it's poised to own a really healthy royalty as adoption picks up, and there's a pipeline which we're quite excited about.

LK: I want to ask about that pipeline, because we're long-term investors. When we invest in a company, we look to hold it for five to ten years or longer. So presumably, we're already thinking about what comes after Leqembei. How well placed is Eisai to develop an even better treatment for Alzheimer's versus its rivals?

ALG: It's a really good question, and it's something we spend a lot of time debating. Trying to estimate success in a clinical trial is very difficult, especially as someone with a non-scientific background. That's why we refer to Eisai as an incubator, which means we believe there's a small chance of a really significant upside. But we are optimistic, and there are several reasons why.

So the first I already mentioned, is that failure rates in Alzheimer's are 99 per cent. The fact that Eisai already has an approved market and it understands the approval process and the science, which is hugely complicated, is a real advantage here.

The second is that data has already come out to show that in longer term trials, the effects of Leqembi are actually longer lasting and potentially greater than the 30 per cent slowdown I mentioned before. That's really promising and it should drive adoption, which could be a huge driver for royalties.

And finally, Eisai is diversifying and it is growing its pipeline. We're most excited about a phase two stroke three trial ongoing for something called tau therapy. Now this is a therapy which works to sort of untangle the neurons which are seen to be a precursor to Alzheimer's.

So not only is this a new and highly novel product, [but] it's also one which could open up a much larger market by helping to treat people before they really get the worst side effects of Alzheimer's. We're really excited about where this could go.

LK: So that's Eisai. Can you give me an example of another company with a disruptive treatment for a chronic condition?

ALG: Yes, so another chronic condition that I think I've touched on today is diabetes, which as we know is disproportionately experienced by those in their later years and where the incidence rates are really rising.

A company we've recently taken a holding in is called Insulet, which you may not have heard of, but you might have seen. So Insulet's products are truly innovative, and what they are is they're automated insulin pumps, which are worn on a diabetes patient's arm, and which instantly and automatically release the insulin to help them manage their blood flow without the patient being affected by a tube system or wires or having to inject themselves daily. It's hugely liberating for the patient and massively improves the quality of life.

The other unique thing about Insulet is that its products are available over the counter in pharmacies, meaning that accessibility is much greater and customer awareness is higher. We really like it because we believe that it's helping patients take control and feel empowered over their health, whilst also improving their outcomes over the long term.

LK: That's great because I know it's rival systems. When you've got the tubes, you can't go swimming, you can't have a shower. This presumably gives you much more freedom.

ALG: Exactly.

LK: And what other companies do we have that are invested and that we've invested in that can do well in this aging health space?

ALG: In terms of the aging healthily space, there's almost too many companies to mention. So the majority of health care costs you'll accumulate in your life will come in the last few years of it. So many, many healthcare companies are going after this opportunity.

The ones which stand out to us at Baillie Gifford are those which are doing something different, doing something highly innovative or which are going after a huge and untapped market, which could be intensely economically rewarding over the long term.

One company I believe that fits all of these buckets is Novo Nordisk, which I'm sure you're aware of, and I'm sure most of the viewers will be too, so I won't spend too long on it. But it's very much worth mentioning.

So Novo Nordisk's core drug is called semaglutide, and this has been approved for use in diabetes patients, and more recently, to help reduce weight in obese patients. What's got the market really excited is not the reduction in obesity per se, but the reduction in diseases associated with obesity or comorbidities.

So this means that by reducing one's weight, it's a preventative form of wellness which will reduce their risks and their burdens on the healthcare system later on. We're still excited about Novo Nordisk because we believe there's so many other diseases which semaglutide could be used in. Yeah, we're really excited to follow its pipeline and progress.

LK: That sounds like a great long-term opportunity. That brings us to the third of your three themes, automation and productivity. You mentioned earlier the idea that we're going to need more robots and other machines to make up for gaps in the workforce. Can you give us an idea how you think this might play out?

ALG: Yeah, so as I mentioned, one of the main consequences of the age wave will be a shrinking workforce, which could be connected to falling productivity and lower output. We've seen this in Japan, which over the last 20 years have seen key metrics like GDP fall very softly over a long period.

This all sounds quite bleak, but I think there are reasons to be positive and there are opportunities, even in Japan, which has one of the most top-heavy societies in the world, there's evidence that this could be changing.

Recent data actually shows Japan has been performing well in relative terms. And there's even more recent evidence to suggest that output, wage packets, and productivity is increasing too. Now, why is this? So many reasons, some of them are social, some of them are political, but some of them are economic and investable, and they're the ones I'll focus on.

I mentioned before that it wasn't a coincidence that one of the most top-heavy societies was a leader in robotics and automation, and that's because it's tools like this which can really solve the challenges of having a smaller workforce by replacing labour with systems that can do a job much more efficiently and also at a lower cost.

Now, automation in industry is nothing new, but what we're excited about now is how robotic systems can be combined with things like AI to be used in various applications outside of industry too.

LK: Can you give me an example of some Japanese companies that are active there?

ALG: So in terms of the Japanese companies, we have holdings in names like FANUC and Keyence, and FANUC is a robotics manufacturer. Keyence makes machine visualization systems.

LK: That's the kind of things that help the chips, that help robots make sense of the spaces around them.

ALG: Exactly, yeah.

LK: Okay, so that's a couple of examples in Japan. It's not only Japanese companies that are active in this space. Can you give me an example of a company elsewhere?

ALG: Yeah it's not only Japanese companies at all, and it's not only industrial automation that we're looking at. An interesting example to talk about would be Intuitive Surgical. This is an American company and a highly innovative business that provides robotic systems for minimally invasive surgery.

So this is helping to solve the problem of a shortage in surgeons, but also quite short surgeon lifespans due to the mental and physical strain of their job. It's also providing a solution to problems like human error, because these robotic systems meaningfully improve patient outputs by reducing error and improving accuracy.

The growth case is premised on expanding this technology to expand its services into other soft tissue surgery, but also increasing penetration in its installed base by selling more devices to hospitals and going after new geographies like Asia and parts of China as well.

LK: So that's robots in hospitals. How about in other workplaces like factories?

ALG: Yeah so to go back to factories, it's definitely still an area of growth. And in fact, we recently took a holding in a business called Schneider Electronics. This is a great business with a very long history.

But it's interesting to us now because we see it as a nuts and bolts play on themes like AI and factory automation. Schneider provides systems which help manage the flow of electricity, which is essential in factories, but it's especially useful in data centers, which we believe will continue to grow as things like AI and demand for the cloud only continue to rise.

LK: And over the long term, do you think that there's a potential to see more use of robotics outside the workplace and other parts of our lives beyond maybe the high-tech vacuums that some of us have?

ALG: Yeah, I think this is where we can start to think about truly disruptive futures. And I think there are plenty of ways in which robotics can be used outside of industry, and plenty of reasons why they should. Just last month, Tesla had its robotics day.

And not only did it unveil its robotaxis, It also showcased its Optimus robots, which are these humanoid robot designs, which were seen dancing, handing out sweets, playing games with investors. While we don't know exactly how they'll be used yet, we're very excited about the potential.

And we believe that the tenacity in Tesla's culture and its history of delivering really, truly disruptive technologies suggests that these devices can be used to solve some of a rapidly evolving society's problems.

If we sort of take a step back and think about what they can be, there's almost too many things which could be done. So as we're starting to see in Japan, hospitality and services, these are already beginning to be streamlined. We also have things like the robotaxis, which I mentioned.

Now, if we think about the US, there's over 3 million people employed in the trucking industry, and yet there's a huge shortage of workers, meaning it's quite an unnecessarily expensive venture.

If robotaxis or robotrucks are used, then not only would we be solving challenges like a shrinking labour force, but we'd be reducing the employee wages, the insurance costs, in a way which could be massively deflationary to the consumer, whose products are often determined by the physical cost of carrying the good.

Where else could they be used? Well, one thing we haven't touched on and another consequence of the age wave is an epidemic of loneliness, which is now considered a medical condition that can increase one's chance of mortality by over 25 per cent.

There's a real case that in the future, as people want to age independently outside of hospital, that their homes become equipped not just with sensors, to help check if they fall, for example, but also humanoid robots to keep them company, to make sure they take their medication, and to generally ensure safer and healthier later lives.

LK: Well, from healthy yogurts to advanced androids, you've given us lots to think about. Abhi, I wonder, could you leave us with one final thought?

ALG: Yeah, one final thought would be that yes, the age wave is slow, but it's not entirely predictable. And while the UN does a good job of predicting how societies will age, it's actually repeatedly and materially underestimated the rate at which birth rates have been falling.

That's something we're really cognisant of and certainly informs our thinking on this topic. And there's one other point as well, and that's to stay optimistic. Society will change, but as we've seen in moments of great change before, great innovation often follows.

And as investors, we are focused and really excited about finding the innovative companies who are doing those things.

LK: Abbie, it's been fantastic to talk to you. Thank you.

ALG: You're welcome. It's been great to be here.

LK: And thank you for committing your time to this conversation. You can also catch up on our other three *Disruption Week* topics, the US's infrastructure renaissance, investing in private companies, and why emerging markets deserve your attention.

You'll find video briefings and write-ups of each session at bailliegifford.com/disruptionweek. But for now, goodbye.

Risk factors

The views expressed should not be considered as advice or a recommendation to buy, sell or hold a particular investment. They reflect opinion and should not be taken as statements of fact nor should any reliance be placed on them when making investment decisions.

This communication was produced and approved in November 2024 and has not been updated subsequently. It represents views held at the time and may not reflect current thinking.

All investment strategies have the potential for profit and loss, your or your clients' capital may be at risk. Past performance is not a guide to future returns.

This communication contains information on investments which does not constitute independent research. Accordingly, it is not subject to the protections afforded to independent research, but is classified as advertising under Art 68 of the Financial Services Act ('FinSA') and Baillie Gifford and its staff may have dealt in the investments concerned.

All information is sourced from Baillie Gifford & Co and is current unless otherwise stated.

The images used in this communication are for illustrative purposes only.

Important information

Baillie Gifford & Co and Baillie Gifford & Co Limited are authorised and regulated by the Financial Conduct Authority (FCA). Baillie Gifford & Co Limited is an Authorised Corporate Director of OEICs.

Baillie Gifford Overseas Limited provides investment management and advisory services to non-UK Professional/Institutional clients only. Baillie Gifford Overseas Limited is wholly owned by Baillie Gifford & Co. Baillie Gifford & Co and Baillie Gifford Overseas Limited are authorised and regulated by the FCA in the UK.

Persons resident or domiciled outside the UK should consult with their professional advisers as to whether they require any governmental or other consents in order to enable them to invest, and with their tax advisers for advice relevant to their own particular circumstances.

Financial intermediaries

This communication is suitable for use of financial intermediaries. Financial intermediaries are solely responsible for any further distribution and Baillie Gifford takes no responsibility for the reliance on this document by any other person who did not receive this document directly from Baillie Gifford.

Europe

Baillie Gifford Investment Management (Europe) Ltd (BGE) is authorised by the Central Bank of Ireland as an AIFM under the AIFM Regulations and as a UCITS management company under the

UCITS Regulation. BGE also has regulatory permissions to perform Individual Portfolio Management activities. BGE provides investment management and advisory services to European (excluding UK) segregated clients. BGE has been appointed as UCITS management company to the following UCITS umbrella company; Baillie Gifford Worldwide Funds plc. BGE is a wholly owned subsidiary of Baillie Gifford Overseas Limited, which is wholly owned by Baillie Gifford & Co. Baillie Gifford Overseas Limited and Baillie Gifford & Co are authorised and regulated in the UK by the Financial Conduct Authority.

China

Baillie Gifford Investment Management (Shanghai) Limited 柏基投资管理(上海)有限公司 ('BGIMS') is wholly owned by Baillie Gifford Overseas Limited and may provide investment research to the Baillie Gifford Group pursuant to applicable laws. BGIMS is incorporated in Shanghai in the People's Republic of China ('PRC') as a wholly foreign-owned limited liability company with a unified social credit code of 91310000MA1FL6KQ30. BGIMS is a registered Private Fund Manager with the Asset Management Association of China ('AMAC') and manages private security investment fund in the PRC, with a registration code of P1071226.

Baillie Gifford Overseas Investment Fund Management (Shanghai) Limited 柏基海外投资基金管理(上海)有限公司 ('BGQS') is a wholly owned subsidiary of BGIMS incorporated in Shanghai as a limited liability company with its unified social credit code of 91310000MA1FL7JFXQ. BGQS is a registered Private Fund Manager with AMAC with a registration code of P1071708. BGQS has been approved by Shanghai Municipal Financial Regulatory Bureau for the Qualified Domestic Limited Partners (QDLP) Pilot Program, under which it may raise funds from PRC investors for making overseas investments.

Hong Kong

Baillie Gifford Asia (Hong Kong) Limited 柏基亞洲(香港)有限公司 is wholly owned by Baillie Gifford Overseas Limited and holds a Type 1 license from the Securities & Futures Commission of Hong Kong to market and distribute Baillie Gifford's range of collective investment schemes to professional investors in Hong Kong. Baillie Gifford Asia (Hong Kong) Limited 柏基亞洲(香港)有限公司 can be contacted at Suites 2713-2715, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. Telephone +852 3756 5700.

South Korea

Baillie Gifford Overseas Limited is licensed with the Financial Services Commission in South Korea as a cross border Discretionary Investment Manager and Non-discretionary Investment Adviser.

Japan

Mitsubishi UFJ Baillie Gifford Asset Management Limited ('MUBGAM') is a joint venture company between Mitsubishi UFJ Trust & Banking Corporation and Baillie Gifford Overseas Limited. MUBGAM is authorised and regulated by the Financial Conduct Authority.

Australia

Baillie Gifford Overseas Limited (ARBN 118 567 178) is registered as a foreign company under the Corporations Act 2001 (Cth) and holds Foreign Australian Financial Services Licence No 528911. This material is provided to you on the basis that you are a “wholesale client” within the meaning of section 761G of the Corporations Act 2001 (Cth) (“Corporations Act”). Please advise Baillie Gifford Overseas Limited immediately if you are not a wholesale client. In no circumstances may this material be made available to a “retail client” within the meaning of section 761G of the Corporations Act.

This material contains general information only. It does not take into account any person’s objectives, financial situation or needs.

South Africa

Baillie Gifford Overseas Limited is registered as a Foreign Financial Services Provider with the Financial Sector Conduct Authority in South Africa.

North America

Baillie Gifford International LLC is wholly owned by Baillie Gifford Overseas Limited; it was formed in Delaware in 2005 and is registered with the SEC. It is the legal entity through which Baillie Gifford Overseas Limited provides client service and marketing functions in North America. Baillie Gifford Overseas Limited is registered with the SEC in the United States of America.

The Manager is not resident in Canada, its head office and principal place of business is in Edinburgh, Scotland. Baillie Gifford Overseas Limited is regulated in Canada as a portfolio manager and exempt market dealer with the Ontario Securities Commission ('OSC'). Its portfolio manager licence is currently passported into Alberta, Quebec, Saskatchewan, Manitoba and Newfoundland & Labrador whereas the exempt market dealer licence is passported across all Canadian provinces and territories. Baillie Gifford International LLC is regulated by the OSC as an exempt market and its licence is passported across all Canadian provinces and territories. Baillie Gifford Investment Management (Europe) Limited ('BGE') relies on the International Investment Fund Manager Exemption in the provinces of Ontario and Quebec.

Israel

Baillie Gifford Overseas Limited is not licensed under Israel’s Regulation of Investment Advising, Investment Marketing and Portfolio Management Law, 5755-1995 (the Advice Law) and does not carry insurance pursuant to the Advice Law. This material is only intended for those categories of Israeli residents who are qualified clients listed on the First Addendum to the Advice Law.

Singapore

Baillie Gifford Asia (Singapore) Private Limited is wholly owned by Baillie Gifford Overseas Limited and is regulated by the Monetary Authority of Singapore as a holder of a capital markets services licence to conduct fund management activities for institutional investors and accredited investors in Singapore. Baillie Gifford Overseas Limited, as a foreign related corporation of Baillie Gifford Asia

(Singapore) Private Limited, has entered into a cross-border business arrangement with Baillie Gifford Asia (Singapore) Private Limited, and shall be relying upon the exemption under regulation 4 of the Securities and Futures (Exemption for Cross-Border Arrangements) (Foreign Related Corporations) Regulations 2021 which enables both Baillie Gifford Overseas Limited and Baillie Gifford Asia (Singapore) Private Limited to market the full range of segregated mandate services to institutional investors and accredited investors in Singapore.