
SHORT BRIEFINGS ON LONG TERM THINKING – EPISODE 17

SUSTAINABLE INVESTING: HOW INNOVATION IMPROVES OUR FUTURE

MB – Malcolm Borthwick

LQ – Lee Qian

Hello and welcome to *Short Briefings on Long Term Thinking*. Thanks for joining us. I'm Malcolm Borthwick, editor of Intellectual Capital at Baillie Gifford.

Scientists and economists have long feared that rapid growth will overwhelm our finite resources and lead to our downfall, but we shouldn't fear it. Every generation underestimates our ability to adapt and to find new ideas. I'm joined by Lee Qian, who's joint manager of the Positive Change Fund and the Keystone Positive Change Investment Trust, which is a new mandate for Baillie Gifford that is currently subject to shareholder approval. Lee looks for firms at the forefront of innovation, trying to find these new ideas and create a more sustainable and inclusive world.

But before we start the podcast, some important information. Please remember that, as with all investments, your capital is at risk, and your income is not guaranteed. And this podcast has been recorded during Covid-19, so Lee and I are both at home, as opposed to in the usual Edinburgh studio.

Lee, thanks for joining us. Let's start by taking a few steps back. Why is economic growth important?

LQ Hi, Malcolm. I'm very happy to be here today, even virtually. I think, economic growth is hugely important because it's the primary reason why we have been benefitting from long-term improvement in our standard of living, and that's hugely important, because it's helping to lift people out of poverty. It provides people with greater access to healthcare, education, and just generally increases the amount of freedom people have to live and pursue the life they want.

And I think, it's something that I have experienced personally, growing up in China. I was born in China in the 1990s. China was still a very poor country back then. Around two thirds of the population were still in poverty, and I remember living in a flat where there is no central heating, where my parents' bedroom was also our living room. So, it wasn't a very glamourous lifestyle. But what's happened in China since then, as the country abandoned state planning and allowed the market to have a greater role in the economy, the country has experienced phenomenal economic growth. And people got better living standards, were able to afford better things, better food, better healthcare.



Fast forward to today, less than 10 per cent of China's population are living in poverty, and the country is home to some of the most innovative companies in the world too. So, I think, that is just a great example of how economic growth can have a tremendously positive impact on people's life.

MB And are there limits to economic growth?

LQ I think, this is a very good question. Certainly, there have been a lot of people, academics, experts, who have talked about the end of economic growth and why it can't be sustained forever. I think this line of thinking goes all the way back to an 18th century English economist called Thomas Robert Malthus. He wrote a very important book, called *An Essay On the Principle of Population*, where he argued that the growth of human population, in the long run, will outstrip the ability of the Earth to provide food, and as a result, we will get starvation, famine and conflict as people fight for limited resources.

But what we have seen in the subsequent two centuries since Malthus wrote his book is that human population has increased significantly, and economic growth has also increased, and at the same time, the poverty rate has declined. So, there doesn't seem to be a conflict between the need to feed more people and the ability of the planet to provide for that. And, I think, part of the reason for that goes back to the role of innovation. So, Malthus and his followers typically think that technology stays constant and there's no new innovation, but over the long term, what actually is the case is, technology constantly improves.

Existing technology becomes the building block of new technology, and with new innovations, we are able to get resources more effectively than before. People, historically, feared that we will run out of energy, that we don't have a sufficient amount of energy for a growing population, to provide electricity to everyone. But we're seeing that, with renewable power and abundant solar and wind energy, which is becoming cheaper and cheaper, all of that is able to provide for more and more people on the planet.

Another area that's really interesting is healthcare. Although our life expectancy has increased, diseases like the one we're living through right now are still very much with us. But there's also a range of innovations such as gene sequencing that help us to understand the cause of disease better and find new ways of treating them.

I don't think there is necessarily a conflict between growth and sustainability, and the role and the importance of innovation cannot be underestimated in ensuring that future growth can be done in a sustainable manner.

MB You mentioned healthcare and innovation. Give me some examples of companies that are innovating.

LQ So, in healthcare, we're very excited by the improving understanding of biology at a cellular and genetic level, and there are a range of companies that are pushing our understanding of biology. One company that we are particularly excited about is called 10x Genomics, which makes single-cell analysis instruments that help scientists increase the resolution by which they can examine biology, and really understand, at



a cellular level, what is the cause of disease and how different cells function. So, that is tremendously exciting.

We are also excited by companies that are coming out with new ways of treating diseases. A great example is Moderna, which is pushing forwards therapeutics, based on mRNA. This is a new modality of treating diseases, which didn't exist before, and it's proving extremely effective. The best example of that is the company's coronavirus vaccine, which is one of the first companies to get their vaccine approved.

MB What's interesting about Moderna is that its potential is much bigger than just the Covid vaccine.

LQ Yes, absolutely. I think, for Moderna, the vaccine is just the first stage of the business. They have a number of other modalities, which they are exploring, where they think that mRNA can also be used to come up with new treatments. For example, they are working on cancer vaccines, which could be opening new ways in which doctors can treat cancers. And there are various other modalities and treatments that Moderna can target with this mRNA technology.

MB And you raised the point of innovation there, Lee. One of the inspirations behind this podcast was a quote by the economist, Paul Romer, which you referenced in a recent paper that you've just written. And let me just go over that quote: "Every generation has perceived the limits to growth that finite resources and undesirable side effects would pose if no new recipes or ideas were discovered. And every generation has underestimated the potential for finding new recipes and ideas. We consistently fail to grasp how many ideas remain to be discovered." Why is that?

LQ I think, we humans have a natural tendency to be a bit pessimistic. I think it's partly just the way our brain is wired through evolution. If our ancestors on the African plain were not constantly watching out for danger, then they wouldn't survive very long, because there were other predators hunting them down. Over the subsequent generations, we have been trained to be on the watch-out for things that could go wrong.

As a result, we are just a bit more pessimistic. We always look at the world and think, "okay, what could go wrong, why might things not work out?" And as a result, we are underestimating the true progress of society. The book *Factfulness* by the late Hans Rosling is a great example. He went around the world and surveyed thousands of people, asking them what they think about the state of the world. He asked them questions about whether poverty has declined or risen, whether people are getting more education today than before. And most people said, "things are getting worse".

Most people said that poverty has increased, when, in fact, that poverty has fallen significantly over the last few decades. So, I think, it's just a nice example of the way our brain is wired to make us think that the outcome of the world is less good than it actually is.

MB Baillie Gifford has recently been appointed as managers of the Keystone UK Equity Investment Trust, and this is still subject to shareholder approval, but how different is this trust, or how different would it be, from the open-ended fund that you currently manage, the Positive Change Fund?



LQ Our plan for the trust is that it will be able to invest in private companies and some smaller businesses, and we think, this is going to be a key differentiation, compared to the open-ended funds. We know that, from the work of our colleagues on the Private Companies Team and some of our own research within Positive Change, there are a significant number of private businesses that are having a positive impact on society and building and growing profitable businesses. And those will be exactly the type of businesses, which we want to invest in.

Having an investment trust and having the ability to invest in private companies will increase our investment universe. And on the impact side, by investing in private companies, we are providing capital directly to companies, providing primary capital, which they can use to recruit people, to invest in innovation and grow their business. So, we believe the impact of our investment will be bigger as well.

MB One of the questions I've asked a lot of people on this podcast recently is, "what has the pandemic changed your mind about"?

LQ I think, the pandemic has been, clearly, hugely devastating, and by no means do I want to underplay the severity of the pandemic. But if there is one silver lining that comes out of the pandemic, it's catalysing a change in behaviour in people's attitude and in people's awareness of sustainability.

The simple fact is that this pandemic started because the foods that people were consuming didn't come from a very sustainable source. It was wild animals in a wet farm that's most likely the cause of this disease. So, it immediately raised concerns around the sustainability of our food supply, and we are seeing a number of companies working to address that.

One of our most recent investments is in a company called Beyond Meat, which is providing plant-based alternatives for the meat consumer. They are putting together plant-based ingredients and making them taste just like meat with a similar aroma and texture, to help people to switch away from and consume less meat. And that's great for sustainability.

MB Have you tried one, Lee? Are you convinced?

LQ I have tried more than one, actually, so, yes, I'm a great fan of Beyond Meat. I eat their burger pretty much on a weekly basis, so probably a bit too much. But it's fantastic. Apart from the food aspects, I think, another aspect of the changing behaviour that the pandemic has brought out is people's awareness of their relationship with nature, and also awareness of climate change and pollution.

MB More awareness of climate change and pollution. That's got to be a positive thing, Lee, and a good place to end the podcast. Thanks for joining us.

LQ Great. Thank you very much for having me as well.

MB You can find our podcast, *Short Briefings on Long Term Thinking*, at bailliegifford.com/podcasts, and subscribe at Apple Podcasts, Spotify and on TuneIn.



And if you enjoyed the podcast, please spread the word.

And if you'd like to find out more about Lee's thoughts on innovation, you can read his paper, *Innovation: Why it's crucial for sustainability*, on the insights page of our website at bailliegifford.com/insights.

And many thanks to Lord of the Isles for the music. The track we've used was called *Horizon Effect*, which was released on Permanent Vacation. And if you're listening at home, in your car, wherever you are, stay well, and we look forward to bringing you more insights in our next podcast.

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