PLANET PAPERS

Feeding the planet

How can we take a bite out of climate change?

Rathbones
Look forward

Feeding the world's roughly 8 billion people has a huge impact on the environment

Cover illustration:
Michael Driver, Folio Art

Foreword

Feeding the world's roughly 8 billion people has a huge impact on the environment. Leading studies suggest this necessary process accounts for about a quarter of all greenhouse gas emissions contributing to global warming. With the global population projected to grow to 10 billion by 2050, the nations of the world won't be able to reach their climate targets without radical change to the food system.

The good news is that a growing number of food producers are already changing their practices, seizing opportunities for innovation and doing what they can to ensure their businesses can continue thriving well into the future with more sustainable models.

We can also help take a bite out of climate change through what we eat. As we'll explore later in this paper, our ethical, sustainable and impact investing team at Greenbank have been working with the Food Foundation and other organisations to make an affordable and healthy diet accessible to all. But this is only possible if we as individuals play our part.

Not only does the food we eat matter, and how it's produced, but also how it's packaged. This has been a significant contributor to plastic pollution, but without viable alternatives, we won't see great change. Businesses are also playing their part here by moving away from the traditional linear model of 'take, make and dispose'.

Overhauling the food system will be crucial as we work towards a more sustainable future for our planet, and therefore a sustainable future for investors. We are seeing growing evidence of the links between good management of environmental, social and governance (ESG) risks and financial returns. So, recognising that all Rathbones clients should have access to these new ideas and opportunities, we are pleased to be working together as a wider Rathbones group to develop a comprehensive and bespoke approach to responsible investing. One that can deliver the best long-term results for all clients, while also reflecting their individual needs and values.

Jane Sydenham
Investment director

A more sustainable food system

A move towards more sustainable practices is the new normal across industry, and food production is no exception. Major supermarkets are now committing to targets around food waste, sustainable food production and plastics. But more progress is needed in coming up with new ways of producing and consuming food if we are to feed our ever-growing population in a sustainable way.

Producing food sustainably

As part of Greenbank's research into sustainable food production back in 2003, we found that although 60% of people wanted to buy local food, only 3% actually did. The price premium of organic and local food put shoppers off. A lot has changed since then as consumers, producers and investors now recognise the impossible demands we have been making on our planet. We all want to produce food in a more sustainable way but it's hard to know where to start and what exactly 'good' looks like.

Last year, the UK charity Food Foundation produced *Plating Up Progress (PUP)*, a report which assesses the food industry's progress in transitioning to a healthy and sustainable food system. By combining the best practices within each type of food retailer, the report identifies the gap between the average profile and the leadership profile (the profile resulting if a single company were to adopt the best practices across all topics within a single sector). These individual company scorecards make it easy to compare businesses and set the benchmark for what we could expect all companies to achieve today.

Since we first researched this subject 20 years ago, public awareness has soared and, according to PUP, it's now the major supermarkets that are publishing more clearly defined targets and disclosing more performance data than other food retailers.

This is a great example of responsible capitalism at work – companies taking a long-term view and finding the opportunities that are out there to generate better and more sustainable financial returns while contributing to resolving some of the big problems facing our world.

Major supermarkets are now committing to targets around food waste, sustainable food production and plastics. But more progress is needed.

Sustainable eating habits

It isn't just a question of how we produce food, the type of food we eat matters too. It's becoming increasingly difficult to meet the protein needs of a growing global population with food sourced from animals – such as meat, dairy products and eggs – and we need alternatives. Assuming the world's population reaches 9.8 billion by 2050 as predicted, demand for animal-based food is expected to increase by 80% from 2006 levels, with beef increasing by 95%.

A May 2018 study on the environmental impact of food production, published in the journal *Science*, declared that avoiding meat and dairy products was the single biggest thing an individual could do to help reduce environmental harm – more than reducing air travel or buying an electric car. Consumers are paying attention and changing their eating habits. The rise in popularity of Veganuary is evidence of this growing trend for meat- and dairy-free diets.

According to a 2019 report from Waitrose, a third of UK consumers said they had deliberately reduced the amount of meat they eat or removed it from their diet entirely. One in eight Britons surveyed at the time were vegetarian or vegan and a further 21% said they were flexitarian.

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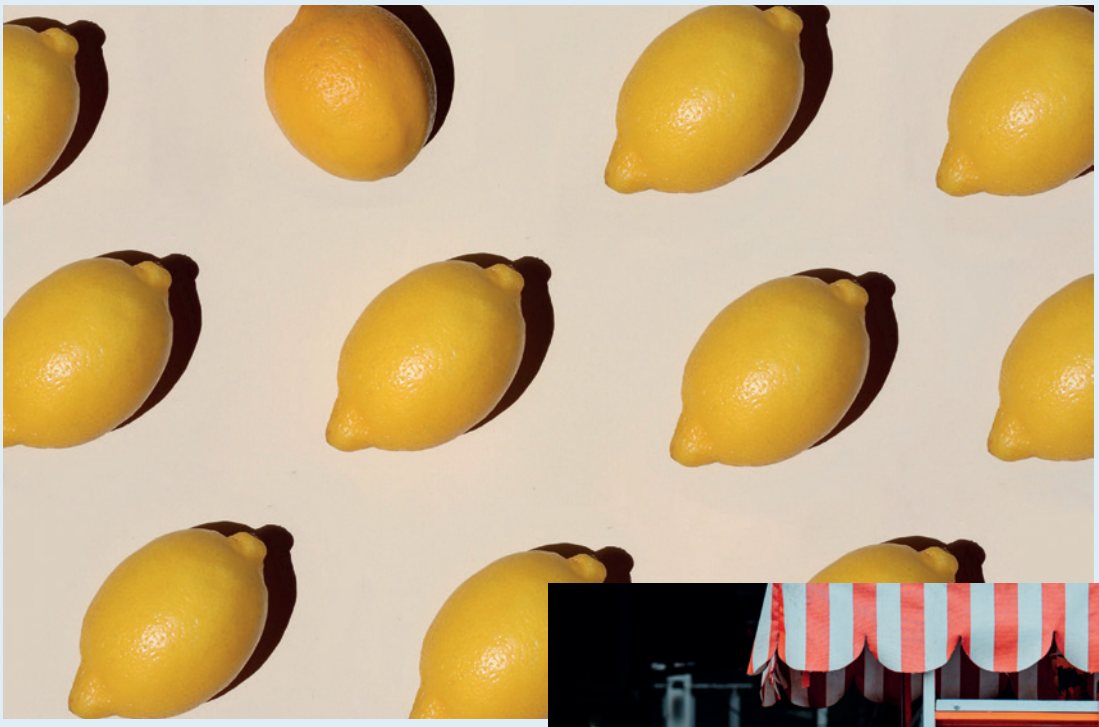
As well as the personal health benefits of reducing red meat and dairy consumption, there are concerns about the impacts of industrial meat production on wider consumer health. Transmissible bacterial infections, such as salmonella and campylobacter from contaminated poultry can quickly spread through large farms, while intensive livestock production has been implicated in a series of global health scares.

Antibiotic resistance is also a risk, with intensive livestock-rearing reliant on routine doses of antibiotics to prevent diseases. The overuse and misuse of antibiotics in cattle farming (accounting for 75% of all antibiotics sold in the US and around 55% in the EU) has contributed to the development of antimicrobial resistance, or AMR (for more on the fight against AMR and related opportunities, see our first *Planet Papers: A responsible recovery*).



Changing your eating habits can do more to combat climate change than reducing air travel or buying an electric car

Circular economy

In response to the pressing issue of waste in general – and plastic waste in particular – a growing number of government and business initiatives are encouraging a shift away from linear 'take, make and dispose' business models towards more circular examples of production and consumption.

In theory, a circular economy eliminates waste by continually reusing resources. Everything has a new role to play, somehow. This system plays an important role in the move towards greater sustainability and not just in food production – it's relevant to every sector around the world. The challenge of this is that good practice looks very different for different industries.

Many see the circular economy as a key solution to resource scarcity, as well as being instrumental when tackling other challenges such as climate change, food security and habitat preservation. Companies can support circularity either through their products and services or the way they operate. For example, some retailers have committed to 'whole crop purchasing' – taking the parts of a crop which may not meet specifications for fresh produce and incorporating them into processed product lines.

Our Greenbank team has raised the circular economy issue in meetings with companies and has also supported collaborative engagement projects focused on plastics. We are encouraging standards-setting bodies to tighten rules on the management of nurdles – the small pellets used to transport preproduction plastic and which are all too easy to spill. And we've endorsed the New Plastics Economy Global Commitment, encouraging makers or users of packaging to phase out unnecessary plastic and ensure that any plastic used is actually (rather than just theoretically) recyclable. There *is* a use for everything, it might just take a bit more work for the world to come full circle.

It isn't just what we eat and how we produce it that matter, but how it's packaged too

Green packaging

It isn't just what we eat and how we produce it that matter, but how it's packaged too. Plastic packaging is everywhere, because it is cheap, lightweight and durable, and serves a wide range of important functions. But the plastic we use to package our food disperses through our environment, leading to contaminated ocean habitats and stricken marine life. What role can consumers and businesses play in solving this pressing issue for our planet?

More circular thinking

Plastic waste will impact our environment for generations to come. Research in the July 2017 edition of the journal *Science Advances* showed that the vast majority of synthetic plastic produced from the early 1950s to 2015 – 6.3 billion of a total 8.3 billion tonnes – was highly durable waste. UK consumers alone were discarding about 35 million plastic bottles a year, which will take an estimated 450 years at least to degrade. But solving this problem isn't simply a case of avoiding companies with any kind of exposure to plastic – plastic use is a complex issue and focusing too narrowly on the product could simply replace one problem with another.

As an example, plastic wrapping on a cucumber extends product life from three days to 14. Removing plastic in this scenario would therefore generate an offsetting increase in food waste. There are nevertheless many cases where we can identify and challenge unnecessary or excessive packaging. Single-use plastics, such as disposable coffee cups and plastic cutlery, are all common sources of waste. Governments are stepping in – plastic straws are now banned in the UK – and we can all encourage companies to eliminate the unnecessary use of plastic and ensure that reusable, recyclable, or compostable alternatives are used wherever possible.

Most importantly, we need to look at how all these different agents are interacting to promote or obstruct a more circular economy for plastic. We can encourage companies to think more holistically about their inputs and outputs, embrace innovation in business models and resource management, and support regulation that promotes better outcomes for the environment, society and, ultimately, for business.

Consumers taking action

Consumers have a big role to play in the fight against plastic and they're already taking action. Greenbank's research from December 2020 showed that 37% of people had reduced their consumption of single-use plastic in the last 12 months, and 23% are trying to buy fewer consumer products. Many are now taking steps to ensure their actions as a consumer are having a positive impact and this means making more sustainable choices about where they spend and invest their money. When choosing products or services, over one in 10 (13%) said they have made efforts in the last year to only buy eco-friendly brands where possible.

This growing awareness of the power of the consumer is having a direct impact on the businesses serving them. Of those surveyed, roughly a quarter said that investing in companies having a positive impact would be an important route to recovery (for more on how changing consumer attitudes are leading to more sustainable business, see our previous *Planet Papers: A brand new world*).

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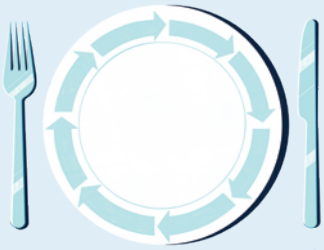
Businesses taking action

There is a lot that businesses can do too, and some are committing to huge change in the drive to reduce packaging waste and the environmental damage it causes.

Through partnerships and promotion, the Ellen MacArthur Foundation is playing an important role in this global shift to rethink our approach to consumption. Not-for-profit charity Waste & Resources Action Programme (WRAP) joined discussions with the Ellen MacArthur Foundation and, in 2015, launched an ambitious five-year action plan — Resource Revolution: Creating the Future — aimed at helping businesses, organisations and individuals to challenge the 'business as usual' approach to consumption and rethink the use of raw materials.

WRAP and the Ellen MacArthur Foundation developed a simple framework to help design systems that cut waste, recycle more and reduce the consumption of resources. Using fewer resources to make goods and designing them to be recovered and repurposed is not only good for the planet, but it can be good for the bottom line —



maximising economic value while minimising the negative impacts of production and disposal.

A reduction in consumption could especially help where we've gone into 'overdraft' in terms of climate change, biodiversity loss, land conversion and agricultural expansion. If we continue to live beyond our planetary means, these environmental risks will inevitably translate into financial and social risks. Consequently, there are huge opportunities for reducing this risk and improving the outlook for long-term social and financial returns through innovation.

One big challenge is finding alternatives to plastics. Very little of the plastic packaging produced in Europe is reused and only around 40% is collected for recycling. A report published in 2019 by DS Smith (a leading producer of recycled paper and packaging) in partnership with White Space Strategy found that 1.5 million tonnes of plastic (of a total of 20 million) could be replaced each year from just five areas of supermarket packaging across Europe. Replacing plastic punnets for fruit and vegetables with paper-based alternatives alone represents an annual £2 billion market opportunity. Of course, increased use of paper could present another set of problems, unless the extra supply can be sourced from recycled materials or through sustainable forest management.

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Increasing consumer demand is a crucial factor in encouraging businesses to make the transition to more sustainable practices, and for that we need to be patient. Deeply ingrained habits will take time to change. As investors we need to relieve pressure on companies to deliver quick returns and maximise short-term profits. Businesses, policymakers, investors and consumers need to work together to develop a system that relies less on physical resources, better serves the needs of all stakeholders and takes responsibility for the full lifecycle of what it produces.

There are opportunities for companies that react quickly and lead the way in sustainable food production and packaging, resulting in a healthy bottom line and a healthy planet. And together we can take a bite out of climate change.

Consumer demand can encourage businesses to develop more sustainable practices

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