

# The Winds of Change: Resource Efficiency



**Sacha El Khoury**  
Director, Portfolio Manager,  
Global Equities

## Contact us

[bmogam.com](http://bmogam.com)  
 Follow us on LinkedIn

As part of “The Winds of Change” series, Sacha El Khoury, lead portfolio manager of the BMO Sustainable Opportunities European Equity Fund, addresses some of the most important sustainability megatrends that are changing the world around us, reshaping the investment landscape, and talks about how the fund is embracing the opportunities they create.

### Unlocking opportunities in Resource Efficiency

How do you accommodate an increasing population on a planet with finite and depleting resources, and how do you do so in a way that doesn't cause further harm to the environment? According to the [United Nations](#), the global population is projected to grow to 9.7 billion by 2050. To maintain our current lifestyles as the population grows would require close to the equivalent of three Planet Earths.<sup>1</sup> Let that sink in.

Unless science fiction becomes reality, the status quo is clearly unsustainable, and some things need to change – urgently. Our consumption and production patterns must adapt to the harsh reality that:

- we only have one planet
- that planet will inevitably have more inhabitants
- our environmental impact is intensifying whilst resources are becoming scarce.

The challenges here are certainly clear, but so are the opportunities – and they abound around resource efficiency and promoting sustainable lifestyles.



#### Key risks

The value of investments and any income derived from them can go down as well as up and investors may not get back the original amount invested.

Screening out sectors or companies may result in less diversification and hence more volatility in investment values.



To maintain our current lifestyle would require the equivalent of three Planet Earths.

#### What's changing?

**Our linear economy:** Population growth in itself isn't the problem. But it's being exacerbated by our linear economy – i.e. our 'take-make-dispose' system. Under this economic system, value is created by producing and selling as many products as possible – and this creates various issues.

**Resource scarcity:** Mother Nature is abundant and bountiful, and has the capacity to replenish and regenerate. But even Mother Nature has its limits. Our linear model

<sup>1</sup> [United Nations Sustainable Development Goals](#)

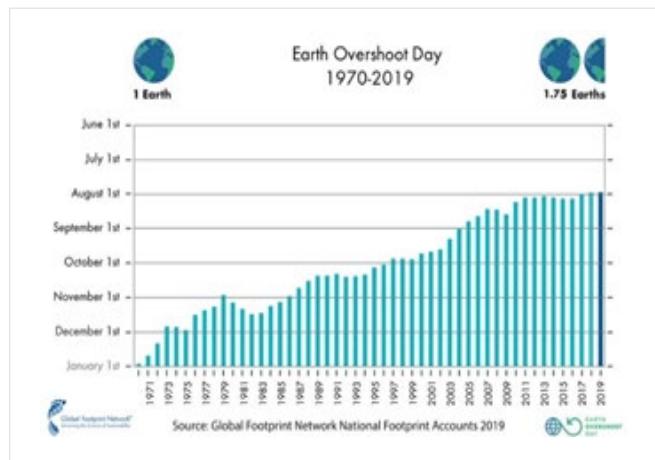
<sup>2</sup> The below is in no way an exhaustive list



By 2050 there could be more plastic than fish in the ocean (by weight).<sup>6</sup>

of taking, making and disposing for decades has taken its toll, and we are depleting resources faster than Mother Nature can replenish them. We are witnessing the depletion of precious natural resources like water, air, soil, forests...but also fossil fuels, which are becoming harder to extract and exerting a higher environmental toll with each extraction. Meanwhile, food sources are also being exploited and depleted at alarming rates.

Earth Overshoot Day represents the day that humanity has used up its allowance of natural resources for the entire year. According to the [Global Footprint Network](#), it fell on 29 July in 2019.



Source: WWF, July 2019

<sup>3</sup> [Global Footprint Network](#), 2020

<sup>4</sup> Estimates vary as to the size, from 700k square kms to 15m square kms.

<sup>5</sup> [Food and Agriculture Organisation of the United Nations](#), 2011

<sup>6</sup> [Ellen MacArthur Foundation](#)

In 2020, Covid-19 slowed this down as humans were forced into lockdowns, but Earth Overshoot Day was only pushed back by 24 days to 22nd August.<sup>3</sup> Not good enough, and not sustainable as we know that once the world reopens, this date is likely to move forward again.

**Excessive pollution load:** A direct consequence of a linear economic model is huge amounts of waste with devastating consequences, none larger or more shocking than the Great Pacific Garbage Patch, which according to [The Ocean Cleanup](#) is estimated to span 1.6 million square kilometres, or 3x the size of France.<sup>4</sup>

**Waste:** When we think about waste, we often think about plastic. But food waste is a massive issue too.

---

Each year, an estimated 1/3rd of all food produced is wasted.<sup>5</sup> That's **1.3 billion tons** worth, or **\$1 trillion** worth.

---

Wasted food ends up rotting in the bins of consumers and retailers, or spoiling due to poor transportation and harvesting practices.

Our linear economic model is chasing growth at the ultimate cost, causing ecosystem degradation, wealth concentrations and social inequities. The consequences of not adjusting course are too grave to even consider.

**Moving to a circular system:** One of the solutions to the linear problem is to move our extractive, exploitative industrial



economic model to a circular one, where waste is not only designed out of the system, but materials are kept in use and are rebuilt into the system. The circular economy is not one that deprioritises growth, but one that merely decouples it from the consumption of finite resources. This is why it must be underpinned by the transition to renewable energy sources. This systemic shift is underway, slowly but surely, and will bring countless economic opportunities, as well as environmental and societal benefits, and a more resilient future-proof model.

### How are we embracing the change?

**The circular opportunity for plastic:** Given that 40% of plastic produced is single-use packaging,<sup>7</sup> the proverbial fruit is hanging very low. The good news is we are slowly but surely designing plastic out and replacing with circular alternatives like recyclable (and recycled) cardboard packaging. Packaging is one of the most visible things to consumers, and consumers are starting to align their behaviour with their values. So much so that 55% of consumers purchased a product specifically because it had reusable or biodegradable packaging, and 45% of consumers outright rejected brands based on unsustainable packaging.<sup>8</sup> These are powerful messages sent to brands signalling real change on the horizon. The opportunity to replace plastic is vast and necessitates a player with the right scale and

<sup>7</sup> National Geographic (2018)

<sup>8</sup> Smurfit Kappa Group

<sup>9</sup> According to [carbonfootprint.com](http://carbonfootprint.com). Statistics derived from Norway, SIFO, DNB Markets, assuming the individual to be an average meat eater, flying economy class and has one fossil fuel powered car. Other parameters based on the Norwegian household average.

“ ”

The circular economy is not one that deprioritises growth, but one that merely decouples it from the consumption of finite resources.

innovation – and Smurfit Kappa has both. As a partner, **Smurfit Kappa** can help deliver innovative green packaging that appeals to brand owners as much as they appeal to consumers.

**Fishing for opportunities:** Consumers now know that the choices they make can have a direct impact on the environment: moving to a pescatarian diet for instance can reduce CO<sub>2</sub> emissions by as much as 9%.<sup>9</sup> And the world's largest salmon farmer **Mowi** is keen on spreading the word. A responsible farmer, they are also pushing the sustainability agenda by providing a product that is not only better for the environment, but also healthier compared to other animal protein. But like any industry, fishing has its fair share of challenges. Notwithstanding the impact of climate change, which is causing water temperatures to rise and oxygen levels in the ocean to fall, the industry has also contributed



to overfishing: an outrageous 20% of all fish caught in the wild is being used as feed...for farmed fish.<sup>10</sup> As the largest cost component for farmers, fish feed is one of the most unsustainable and wasteful practices. But again, with challenges come opportunities. Ingredient company **DSM** has developed Veramaris®, a zero-waste algae oil which provides the first viable alternative to fish oil using fermentation and algae as a basis. This helps to address an important sustainability challenge, whilst providing a rich nutrient that boosts omega-3 content in farmed fish.

**Waste not:** Increasing food shelf life is one of the ways to tackle the problem of food waste touched upon earlier. Speciality ingredients company **Kerry Group** provides bio-based solutions like enzymes as a clean alternative to preservation chemicals that are derived from fossil fuel. Not only is this a net positive for retailers' bottom line since it improves food safety and maximises shelf life, but it is also a net positive for the planet.

**New horizons:** Energy uses and sources also need to be revisited, and industrial gas company **Air Liquide** proactively help their clients reduce their environmental impact by offering energy-efficient solutions that also help cut costs. As one of the major players in hydrogen, they will also benefit from the [major regulatory push out of the EU](#), where hydrogen is seen as a key alternative to fossil fuels. Whilst not a direct energy source, Hydrogen is the Swiss Army knife of energy: it is an energy carrier that can store, transform

<sup>10</sup> DSM

<sup>11</sup> [Hydrogen Council](#), 2017

“ ”

The balance of power is shifting between consumers and brand owners.

and transport energy, all with zero CO<sub>2</sub> emissions. How? Because when burnt, it emits no CO<sub>2</sub>, only water vapour. This is expected to drive a ten-fold increase in demand for hydrogen by 2050.<sup>11</sup>

#### A final word...on Generation Z

The balance of power is shifting between consumers and brand owners. Given a voice, and armed with information, consumers are feeling increasingly empowered. They are aligning spending with values, and are being more demanding of brand owners and manufacturers. A lot of this shift is driven by Generation Z, aged between 11 and 25. They make up roughly a quarter of the world's population – more than any other generation in fact, and are exerting significant pressure to change course. Why? Because they have a different perception of the world. For one, they are tech natives – they're unlikely to



have ever seen a floppy disk, and if you've ever observed a Gen Z on TikTok, you'll witness the brevity of their attention span and how they relate to companies that are desperately trying to target them.

Their outlook on life is also fundamentally different. In a way, Greta Thunberg is the poster child for Gen Z. They are social activists; they care about sustainability, social equality and the environment. They care about where products come from, how they're manufactured and where they end up. As Gen Z mature, their influence on the world will grow and this will accelerate the momentum behind the change we're seeing today.

\* Includes Energy Transition and Sustainable Mobility themes

**Our BMO Sustainable Opportunities European Equity Strategy has a large exposure to the resource efficiency theme (percentages as at Jan 2021).**

	Health & Wellbeing	32
	Digital Empowerment	18
	Sustainable Finance	15
	Sustainable Cities*	15
	Resource Efficiency	11
	Connect & Protect	7

Views and opinions have been arrived at by BMO Global Asset Management and should not be considered to be a recommendation or solicitation to buy or sell any companies that may be mentioned.

The information, opinions, estimates or forecasts contained in this document were obtained from sources reasonably believed to be reliable and are subject to change at any time.

