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Think Tank Podcast: Circular economy – Reduce, reuse, recycle

TRANSCRIPT

Nisha Pillai (NP): Welcome to Julius Baer's Think Tank Podcast. In this series we'll be walking you through the mega trends of the future, and bringing you closer to our network of thought experts that are capturing the world's big changes and putting them into context for us.

I am Nisha Pillai, former BBC World News presenter and your moderator today.

Eliminating waste and continuously using resources so that they last longer is the principle of the circular economy. Reusing, sharing, repairing, refurbishing, remanufacturing and recycling can all help to create a closed system, minimising the use of resources and waste, as well as carbon emissions.

Many industries are adopting a circular economy principle for their processes. We will be talking today with Carsten Menke, Head of Next Generation Research at Julius Baer, and Esteban Polidura, Head of Advisory and Products for the Americas, about how circular economy thinking is helping us reshape our systems and prepare for a better tomorrow.

NP: Carsten, why is circular economy now such an important topic for your research?

Carsten Menke (CM): Because the time is right. I've had it on our radar screen for quite some time but it did not have the necessary traction. You know, my background is in the metal markets where scrap, i.e. recycled metal, always plays an important role in balancing supply and demand. Hence, it was always natural for me to think about recycling.

Since some time it looks like consumers are becoming more conscious in terms of what their behaviour and their decisions mean, for society as well as for the environment. This is part of a greater trend towards sustainability, which was on the rise already during the past few years. But it was only last year during the corona crisis that it received a major boost. Why was that? Because this pandemic prompted many people to think about what's important in life – beyond the usual day-to-day routines.

More specifically on the environment, the circular economy is of course closely related to climate change, because of all the carbon emissions caused by what we consume and also throw away. It is also closely related to the plastic problem, which has risen in prominence during the past few years.

So, more broadly, sustainability is one of those megatrends which we believe will lastingly change the way we live. A greater focus on sustainability will cause structural changes to our society, to our economy and to how businesses operate in the future. It is a major driver behind the circular economy and that's why we think this is an important topic for us in Next Generation research.

NP: Ok, so give us so numbers Carsten, put this in context for us if you will. What does the data show on how much waste we are generating everyday as consumers?

CM: Let's start with 2.1 billion tonnes. That is the total amount of municipal solid waste generated in 2018 – the most recent year we have data for. But I guess this number is too abstract, too huge, to get a good understanding of what it actually means. So, let's make it more concrete: 0.75 kg per capita and day on average. If we break it down, people in prosperous countries generate more waste than those in poorer countries. The world's most wasteful country actually is Singapore with more than 3.5 kg per capita and day. Other very wasteful countries among others are the United States – not surprising –

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but also Denmark and Norway with 2 kg or more per capita and day. When I looked at those numbers, I found it quite surprising to see many European countries on that list, given that they have quite a strong focus on sustainability. At the other end of the spectrum we find Papua New Guinea, Mauritania and Burkina Faso with less than 0.5 kg per capita and day – underpinning the relevance of prosperity as a driver of waste generation.

The other driver, of course, is population. As soon as we put a foot on this planet – or even before – we start to generate waste. Taking both together, prosperity growth and population growth explains, why worldwide waste generation has been on a steadily rising upward trend.

NP: Some of those numbers are fascinating Carsten, I was aware that consumers in developed countries have a bigger footprint than those in poorer countries, but I didn't realise how big the gap is. How does it look like on the waste management side?

CM: Well that is also a very important point of course. While people in prosperous countries generate much more waste, they can also rely on much more developed waste management systems. Around 30 per cent of their waste is recycled, compared to only 5 per cent on average in the developing world. Furthermore, developed countries increasingly use waste-to-energy solutions, meaning that around 15 per cent of their waste is burned in order to generate electricity. In contrast to that, developing countries rely heavily on landfills or open dumps (about 75%), which are associated with significant environmental risks such as soil pollution.

Of course, this is a direct consequence of the prosperity as the developed world countries can simply afford better waste management systems. Waste management requires quite a complex infrastructure, from separation to collection and treatment. Such an infrastructure needs to be paid for by consumers and it is quite evident that it is more efficient to operate such an infrastructure in densely populated areas, e.g. in Europe or North America, than in sparsely populated areas, e.g. in some parts of Latin America.

So, what's the bottom line here? For people in developed countries that mantra should be "Reduce, reuse, recycle", i.e. first and foremost trying to avoid waste in the first place. Then they should try to reuse things – if possible – and last but not least, they should recycle as much as possible. For developing countries, the priority needs to be to introduce and expand proper waste management systems that would be beneficial both for the environment as well as for the population, and leaving ample room for investments. In the end this is easier said than done, considering the weakness of the institutions in some of these emerging countries.

Independent of the country, I would say that, cities should be leading by example, as the economics of improved waste management are much more compelling in densely populated cities than in the sparsely populated countryside.

NP: You've been researching the future of cities and mobility for some time now haven't you, we have spoken about this before if I recall. I wanted to ask you this, Carsten, about carbon emissions, they are very difficult to bring down to zero right? Aren't the cities per se, and the industries like the auto industry for example, aren't they always going to be a net drain on natural resources regardless of circular economy strategies?

CM: Yes and no.

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Yes, because consumption requires the use of resources, I think that is quite clear. But do we need to consume as much as we do? Most of our carbon footprint is related to mobility. How much do we drive, how much do we fly? Already one long-distance return flight has a major impact on our carbon footprint. Our food contributes to our carbon footprint as well, primarily how much beef we eat and how much dairy we consume. And then, it's also about the other stuff, our clothes for example. How much of what we have in our wardrobe do we wear regularly? If you consume more consciously, you can reduce your carbon footprint quite a bit I would say.

No, because reusing or recycling enables us to massively reduce the carbon footprint. The best example in this regard is aluminium. The production process of primary aluminium is extremely energy intensive. If an aluminium producer relies on coal-fired power, then this has a massive carbon footprint. For those who rely on clean power instead, it is much better but not yet optimal. What is optimal? Recycle the aluminium, because this needs 90% less energy than primary aluminium. And this basically applies to all of the resources we are using, even though the effect may be not as extreme as for aluminium.

NP: I am going to remember that about aluminium Carsten. Now I wanted to ask you another thing, there are opposing views on the merits of a circular economy. Some critics say that while they use or recycle certain materials, they end up overusing other natural resources, like water or natural gas. How do you see this Carsten?

CM: That's a difficult question and there is not one size fits all answer to it. Why? Because waste management is such a complex topic. Throwing something away is so simple but everything else which follows is extremely complex, from different perspectives.

The plastic problem is a case in point. Is plastic good or bad? Of course it is bad if it ends up in our oceans. But why does it end up there? Because we do not handle it properly. Why don't we handle it properly? Because it has such low value. That is the reason, i.e. the cheapness of plastic is why it is widely used and is also the reason why it is so hardly recycled – especially after China refused to be the world's dumping ground for plastics in 2017.

However, plastic has its advantages. It keeps food fresh for longer, e.g. compared to paper. It is much lighter, which is a big advantage for example if you think about the transportation of beverages. A plastic bottle weighs around a tenth of a similar-sized glass bottle, thus causing significantly less carbon emissions when transported from the factory to the supermarket. Plus, a glass bottle has a higher carbon footprint than a plastic bottle during the production process.

So, how should we handle plastic properly?

Let's look at plastic bottles in Switzerland. As in many places, plastic is preferred here for beverages. While there is no deposit on the bottles, most people return them, leading to a recycling quota of more than 80%. Is that only because the Swiss are so correct? Partly yes, I assume. But primarily it is because putting the plastic bottles into the normal waste would dramatically inflate the bill as each bin bag is paid for separately and the plastic bottles, even if squashed, need a lot of space.

That is why, at the end of the day, it is all about reduce, reuse and recycle, in that order. As conscious consumers, we should avoid as much waste as possible. And what we cannot avoid, that should be recycled.

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NP: Interesting point about the financial nudge there in Switzerland. So stepping back for a moment, what are your thoughts about how we can make the circular economy a success story? What needs to be done in your opinion?

CM: This is about changing our mind-set. Which as we know it is easier said than done: into the bin, out of the mind - that has to change. But how do you change the people's minds? You need to first educate them and second incentivise them.

Education is crucial in the sense that people need to be aware of what happens with their waste, how complex waste management is, what the adverse impacts of generating too much waste are – from the related carbon emissions to the related soil and water pollution – if we think about landfills in developing countries or our oceans.

Incentive is also crucial. If it does not make a difference financially to properly separate my waste or to just dump it into one bin, then most likely, we won't do it properly. Which means, that the whole waste management system needs to be set up in an appropriate ways in order to achieve the desired result. This is easier said than done, if you consider how many different waste management systems there are worldwide. At the end of the day, consumers need to feel a financial impact if they do not do it properly. Think of the plastic bottles in Switzerland again.

However, incentive is not only crucial for consumers but likewise for producers. If they are not incentivised to reduce the amount of packaging and to develop better packaging solutions, then the whole burden would be placed on the consumer. So the producers need to be on board. They need to make it easy for the consumer. Fortunately, many companies are already working in this direction – partly because they have realised the urgency and partly because there is a financial incentive for them as well.

NP: Really interesting work you have been doing on the circular economy Carsten. Thank you so much for joining us on Think Tank.

CM: Thank you.

NP: Let's now bring in Esteban Polidura for his investment views. Esteban, a circular economy, we've just been hearing, is meant to use less, reuse more, give things a longer lifespan. It is beginning to affect whole industries I understand, so what are the implications for companies?

Esteban Polidura (EP): Thank you very much Nisha for having me and yes, we just heard from Carsten how a circular economy is in essence an industrial system that is restorative or regenerative by design. But developing products for reuse or upgrade, eliminating waste and fuelling the cycle with renewable energy is not really an easy task. Companies that seek to participate efficiently in the circular economy need a great deal of innovation to start with. Then, other characteristics play an important role. These include the ability to redefine a problem that has not been addressed correctly, flexibility to adapt processes to a changing environment and a vision to find opportunities within the problem.

On this, the World Economic Forum and the Forum of Young Global Leaders, in collaboration with Accenture, identified companies that are leading the way to a circular economy. Their products include smart meters that analyse our trash and identify ways to reduce it, processes to extract carbon from trash that cannot be recycled and turn it into biofuels, and solutions to turn old tyres and other rubber

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waste into something called micronized rubber powder, which can then be used in asphalt and construction material.

It's not all about managing waste. Successful companies in the circular economy take one step back and seek to reduce their footprint from the start of their production process. For example, the textile industry uses water and chemicals and thus can produce large amount of toxic waste. This is particularly a problem in Asia. Companies that dye cloth without water and harmful chemicals are quickly attracting the attention of some of the large apparel brands.

And in those cases where recycling is difficult or makes no economic sense, prolonging a product's lifespan through reuse is allowing many companies to tap into previously non-existent markets. Just imagine the mountain of discarded smartphones and tablets that is generated every year. Key players in the circular economy work with many of the world's leading manufacturers and service providers to repurpose and reuse the devices or their components. According to the World Economic Forum, more than 50 million devices have been reused, stopping 6,500 tons of e-waste ending up in landfills.

NP: And is it possible for investors to reflect these kinds of circular looping systems in their investment preferences?

EP: Investors are becoming increasingly aware of the growing relevance that concepts such as the circular economy and sustainability are having on the consumer. For example, the Julius Baer Global Wealth and Lifestyle Report 2020 highlights that an overwhelming majority of citizens globally (actually 81%) feel strongly that companies should do more to safeguard the environment. It is interesting to note, that people from less developed countries are more likely to pay more for responsibly-sourced products than people from richer nations. This is particularly the case in emerging economies where consumers do not give for granted that companies are enforcing the appropriate actions. In Latin America, 94% of consumers say it is important that companies implement policies to improve the environment, the largest share compared to other nations. In turn, Latin American consumers seem willing to pay a premium for more ethically sourced products.

But investors conscious about the circular economy are not only focused on products and services that have a small footprint on the world ecology. They most likely also care about how companies manage their relationships with the workforce, how they impact societies in which they operate and their behaviour in the political environments surrounding them. This is increasingly pushing companies as well as investors to focus on environmental, social, and governance (ESG) parameters.

In practice, investing in the circular economy is not so easy and demands the expertise of specialists such as our Next Generation Research team. Carsten has noted that in many parts of the world, waste management is highly regulated and thus, is not readily accessible to investors via publicly traded companies. Furthermore, many of the companies currently in operation have rather limited pricing power as they deal with local governments. In terms of packaging materials, our team believes that metal (actually aluminium), paper and glass will be preferred over plastics because of the general perception that plastic is bad. But this can change. And in terms of consumer product companies, there is a general demand from the public and regulators that these companies do something about their footprint. Hence, there is rather the risk that those companies which do not play along are singled out as laggards, potentially facing a public backlash as well as fines from regulators.

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So, we suggest investors to get an expert to discuss and assess potential investments ideas before turning the circular economy into a large constituent of a portfolio.

NP: Noted that point Esteban, thank you so much for joining us for an interesting conversation on Think Tank.

EP: My pleasure Nisha, thank you.

NP: Just think about it, when you share a car journey or rent out your home for a short while, you are welcoming circularity into your life. This concept is set to change how we consume, how we live, and the shape of the future for generations to come.

If you have any more questions on circularity, please do talk to your representative at Julius Baer. Thank you for listening to this episode of Think Tank. Do subscribe to the podcast on Spotify and Apple Podcasts. From me, Nisha Pillai, goodbye for now.