

How the Pandemic Has Hit Plastics Recycling

Article by Camille Nedelec

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In April, as Europe stood still and the global economy ground to a halt, daily global CO₂ emissions fell by 17 per cent compared with mean 2019 levels. Many remarked that the pandemic seemed at least to have one upside: a chance for the environment to recover. Such assumptions may be severely misguided, however. Camille Nedelec explores the ripple effects of the coronavirus crisis on a pressing environmental issue: plastic production and recycling. In Europe's transition to a circular economy, the impact of the Covid-19 crisis could be a huge setback.

As consumption of oil dropped off a cliff in the midst of the Covid-19 crisis, the oil price crashed and ended up in the negative for the first time in history, prompting many to even ask if this was the beginning of the end for the oil industry. Brent Crude dropped 65.6 per cent for the quarter, with prices slashed in half during the month of March. Cheap oil makes more sustainable alternatives far less competitive. The knock-on effect ripples through adjacent industries that depend on oil as raw material, making oil-derived products such as plastic more attractive than their pricier sustainable alternatives.

Most plastics in use today are virgin and synthetic, meaning they are made from fossil fuels that are refined and processed into polymer resin before being turned into the final plastic product. It is a long supply chain that crosses industries and continents, but a big drop in the price of the base raw material will affect every player in that chain.

“The price of oil and the price of virgin plastic products are very closely tied because of the way the market operates,” explains Dr Eleni Iacovidou, lecturer in Environmental Management at Brunel University. “Cheap oil flooding the market has made the manufacturing of virgin materials much cheaper to produce because it's the raw material, but it's also made the manufacturing process itself cheaper as well. The major cost allocated to production is the energy intensiveness of the process, and if the oil price is low, production costs go down.”

Plastic prices in freefall

Although the price of oil has since rallied, our consumption of oil is likely to drop once again as we enter a global economic recession. And oil prices will flounder accordingly – meaning that the price advantage that virgin plastics have over recycled plastics is not going to go away any time soon. Data from Plastic Portal shows that almost all plastic resins in Central Europe have seen double-digit percentage drops in price as compared to last year. High-density polyethylene resin, which is used to make anything from chairs to food containers, dropped by over a quarter in June. Recycled plastics quite simply cannot benefit from the same market forces that are making virgin plastics so competitive, as the industry's feedstock is not the oil and gas industry. Market analysis from S&P Global Platts noted that on June 17th, the cost margin of Northwest European R-PET clear flake – the feedstock for making recycled drink bottles – was close to production costs, at 380 euros per million tonnes. “Weak demand limits price increases,” the update notes.

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Another complicating factor is the impact of lockdowns around the world. In a statement released in May, Plastics Recyclers Europe, an association that represents over ninety recyclers across the continent, warned that the industry was closing production “due to the current market developments caused by the Covid-19 pandemic” and blamed the drop in demand on the closure of converting plants, the low prices of virgin plastics, and decreased global activity.

Even the giants are impacted

Large multinationals have self-imposed sustainability targets of increasing the percentage of recycled plastics that are used in their products, and arguably are financially robust enough to not budge on those commitments, especially as the potential pushback from the public and investors would be significant.

In June, Danone shareholders voted to turn the company into an *Entreprise à Mission* – literally, a mission-orientated enterprise – which would make mandatory the adoption of wide-ranging sustainability and social responsibility measures within the company. But in the midst of the pandemic, Danone missed a series of sustainability targets: all of Volvic's products in Germany, all evian and Volvic small bottles in France, and all evian on-the-go products in the UK were supposed to be made from 100 per cent recycled PET from April onwards.

When asked for comment, Danone explained that the coronavirus put paid to that target: “We started the transition to 100 per cent rPET (recycled polyethylene tetrachypte) in April, but in the current context, suppliers have been unable to produce recycled PET in the quantities needed to fulfil our original plans. So we have had to readjust a number of our planned 100 per cent rPET ranges until later in the year.”

In May, Coca-Cola also missed a self-imposed sustainability target of 50 per cent recycled plastic content in its drinks in the UK but claims that it will meet that target by the end of the year, and all of its bottles worldwide will be 50 per cent recycled plastic by 2030.

Jon Emans, president of Plastics Recyclers Europe, explained what has happened to the recycled plastics producers forced to close due to lockdown measures imposed in Europe: “Companies are trying to pick up business again, and the question is how fast can they do it.” While he recalls not having seen any companies go bankrupt in the industry, he points out that many “have stopped their production or produced less, and of course, a lot are still struggling”. While some have resumed activities, this has not been to the same level as before the Covid-19 crisis.

A struggle for the recycling sector

Even if larger plastic feedstock customers such as Danone are able to switch back to recycled plastics as soon as production picks up again, many others will continue to respond to the market. The companies of ERGIS Group, a plastics processor in Central and Eastern Europe, produce films, flooring, face guards and packaging, while its recycling arm, ERGIS Recycling, produces a variety of rPET pellets. With an overview of both markets, president of ERGIS Group Tadeusz Nowicki explained that processors are making rational business decisions about replacing recyclates with primary raw materials, despite the “obvious contradiction with the philosophy of circular economy” and sustainability goals.

“We live in difficult times and it is becoming increasingly difficult to convince customers that it is worthwhile buying a slightly more expensive recycled product. Such decisions are made only by the most conscientious consumers who have written “green policy” into their philosophy,” he adds. “For the moment, we maintain stable production and sales. But none of us knows what the coming days or weeks will bring.”

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If the larger recyclers are feeling the headwinds, the smaller players are under even more intense pressure. The managing director of a British supplier of recycled scrap plastic (who does not wish to be named) commented that in current market conditions the business’s profit margin has become razor-thin. At least one client that had already started to use the company’s recycled materials switched back to virgin plastics because it was significantly cheaper. Enquiries from new clients have all but ceased. While the director is confident that the business will weather the storm, many other small-to-medium players in the sector are likely to disappear.

Moreover, conditions for the sector could be about to get even worse. “Exports of products coming from China made from virgin plastics are going to be so competitive they could flood the market,” says [Axel Barret, editor and founder of Bioplastics news](#). “That includes the products and raw materials like PET granules. The virgin PET is much cheaper than recycled. It was like that before the crisis, but now it is even worse – you could pay up to double for recycled PET.”

Potentially, that could mean that when recycled plastics become more competitive again, the infrastructure needed to switch back to recycled plastics might no longer exist, causing lasting damage to Europe’s ability to cut down on plastic waste.

Entrenched issues

According to Barret, the industry’s current predicament is an exacerbation of market forces that were already at play before the crisis. Neither recycled plastics nor bioplastics (plastics made from biological sources such as corn) had the capacity to meet demand and they were less able to leverage economies of scale. [According to the European Commission](#), only 6 per cent of new plastic materials come from recycling, which is a missed opportunity to commercialise and add value to plastic packaging waste. The failure to unlock this potential value adds up to 105 billion euros each year.

One case that demonstrates this is [a planned deposit return scheme in Scotland](#) whose launch was postponed from April 2021 to July 2022, a decision made before the pandemic. The draft regulations were published in September 2019, when the Scottish government launched extensive discussions with industry to assess how the scheme could be most effectively rolled out. After gathering evidence, the advisory group realised that the earliest point at which it would be feasible to launch the scheme was almost a year and a half later than planned.

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But if businesses were not ready before the pandemic, they are even less so now: a ban on plastic straws, stirrers

and cotton buds was pushed back across the UK over concerns that businesses need more time to recover from the disruption caused by the coronavirus. It had been due to come into force in April 2020 but will now not come into effect until October.

Ecology activist Emily Stevenson knows full well that it will be fellow volunteers who will end up dealing with the fallout of Europe's bumpy transition to the circular economy. She was catapulted to viral fame in 2018 when she graduated from her degree in marine biology in a dress made from crisp packets. Co-founder of Beach Guardian, a beach clean-up charity based in Cornwall, UK, she often collects waste that is a decade old and is washed up onto beaches due to storms. Most plastic waste that ends up in the oceans sinks to the sea floor, making it next to impossible to clean up. Stevenson is worried about cash-strapped local businesses who can now ill afford to make greener choices.

"I understand that lots of local businesses who've worked hard for years to build up their trade are now going through a really tough time and are struggling to survive, and so they might go for cheaper, non-sustainable packaging," Stevenson says. "But it shouldn't have to be a choice between economic survival and sustainability. We should be able to kill two birds with one stone by putting sustainability at the heart of business processes. Businesses who do that might end up even stronger than if they hadn't made sustainability a priority."

Plastic and health fears

Virgin plastics have also benefitted from the coronavirus pandemic as demand grows for pre-packaged products and personal protective equipment. Back in March, the World Health Organization called on personal protective equipment manufacturers to increase production by 40 per cent to save lives. Stevenson notes that since the crisis she has begun finding facemasks and plastic gloves during her cleanups, and warns that as personal protective equipment cycles through the environment unchecked, she could be picking it up from the beaches years from now.

Until the pandemic, the emotional relationship to plastics was clear; consumers generally understood they were environmentally harmful and wanted to reduce their usage. But now, single-use plastics are seen by many as a vital tool in the fight against the virus.

Packaging is another area in which consumption of single-use plastics has shot up; revenue for e-commerce is up by double percentage points as many Europeans shun their shops in favour of the relative safety of their computer screens, and those products will inevitably be packaged for the journey.

Until the pandemic, the emotional relationship to plastics was clear; consumers generally understood they were environmentally harmful and wanted to reduce their usage. But now, single-use plastics are seen by many as a vital tool in the fight against the virus. *Politico* revealed that the US plastics association had told the US Department of Health and Human Services in March that "single-use plastic products are the most sanitary choice when it comes to many applications, especially the consumption and transport of food." However, one study has since found that plastic actually harbours the coronavirus far longer than glass or wood.

Regulatory framework

The European Commission is pushing the plastics recycling industry to boost its current recycling capacity of 5 million tonnes to ten million tonnes in the next 5 years and will require PET bottles to comprise 25 per cent recycled materials by 2025 and 30 per cent recycled materials by 2030. “We are very much counting on the Commission and national legislators to implement concrete measures that will strengthen the use of recyclates,” says Kristy-Barbara Lange, Head of Public Affairs at APK AG, a producer of recycled plastics.

There is also another issue on the horizon that could complicate those efforts: the EU’s Single-Use Plastics Directive which lays out those goals takes aim at the ten most commonly found plastic items in the sea (for example cotton buds). The Directive was written before the Covid-19 pandemic and does not take into account the influx of disposable masks. Nevertheless, Justine Maillot, policy coordinator of the Rethink Plastic Alliance, warns against reopening the legislation for debate: “Re-opening the directive could have unforeseen consequences,” she explains. It would be a chance for single-use plastic producers to push for a softening of the text. Moreover, the Directive asks member states to measurably lower waste from food containers and drinks by 2026 as compared to 2022. But if the pandemic is not under control by then, take-away packaging could be higher than pre-pandemic levels, thus artificially inflating the baseline and effectively neutralising the Directive’s impact.

Another mechanism in the EU toolkit is tax. As part of the coronavirus recovery plan, EU leaders announced that plastic waste would be taxed at 0.80 euro cents per tonne. But Maillot insists that regulation and taxes should be focused further up the plastics value chain, at the resin level, in order to help close the pricing gap between virgin and recycled sources. With the current proposal focused downstream, “you could still have all the impacts from the production and the use [of plastics],” she points out [read more in our [plastics focus](#)].

Transitioning to a circular economy

It is not all bad news, however. Ton Emans is president of Plastic Recyclers Europe and head of CeDo recycling, one of the biggest producers of recycled garbage bags in Europe, producing for the European market out of European household waste. “Sometimes it is more expensive [than virgin synthetic plastics equivalents] but we have customers who understand our business,” Emans says.

Emans is also sanguine about the current market headwinds because he believes the smaller players that currently make up a big portion of the sector need to be replaced by higher capacity, innovative outfits in order to ramp up capacity to meet European targets.

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The emphasis on plastics is just one of a number of priority sectors identified by the European Commission in its Circular Economy Action Plan, which also includes textiles, cars and batteries, and packaging. As Maillot notes, the push to reduce Europe’s polymer problem is part of a larger conversation around using alternatives and reducing waste; if we replace all our single-use plastic with another single-use packaging such as paper, the issue has only been displaced, not solved.

But in contrast to many others, Emans remains positive about Europe’s ability to switch to recycled plastics, and its non-negotiable need to embrace the circular economy. “If you’re in recycling, then you have to be an optimist,” he laughs.



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