

Single-Use Plastic in the Consumer Staples Sector

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Our team's Environmental, Social and Governance (ESG) approach is primarily focused on material issues that could threaten or enhance company fundamentals and/or the sustainability of returns on capital. As the topic of plastic pollution has leapfrogged other issues into the public consciousness, how are fast-moving consumer goods (FMCG) companies tackling the plastic waste problem through the value chain? What is the potential impact on their operating costs and profits? How are firms preparing for increased regulation? Which companies see this as an opportunity to differentiate themselves? We reviewed what some of the largest consumer staples companies are doing to address the issue, and engaged with the consumer staples companies within our portfolios to uncover more.

For consumer staples companies, plastic pollution is one of the most material environmental considerations. We have looked at the companies in our portfolios to examine the potential consequences for the companies' profits and growth as well as brand equity. While we *do not believe the issue currently represents a material risk* for FMCG companies who are the biggest users of single-use plastic, it may in the future. We also believe that by addressing their plastic

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In April 2019, Morgan Stanley launched its Plastic Waste Resolution, committing to facilitate the prevention, reduction and removal of 50 million metric tonnes of plastic waste from entering rivers, oceans, landscapes and landfills by 2030. <https://www.morganstanley.com/Themes/plastic-pollution-resolution>

consumption, companies not only benefit the environment, but also create opportunities to differentiate themselves.

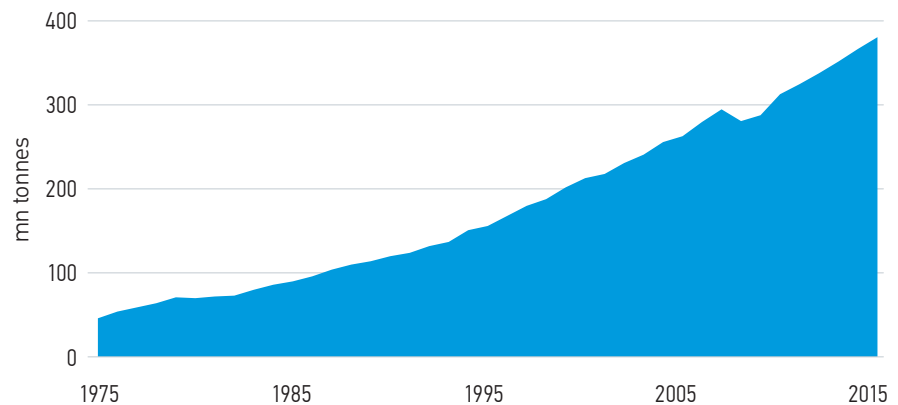
The problem: Current Plastic Waste Management Infrastructure is Inadequate

The world is drowning in plastic waste. Plastic packaging use has grown exponentially in the last fifty years. On current trends there will be more plastic in the ocean than fish by 2050.¹ Around half of total plastic is used for consumer packaging (*Display 1*), and most of it is only used once.² Currently, very little is recycled for economic and technical reasons.

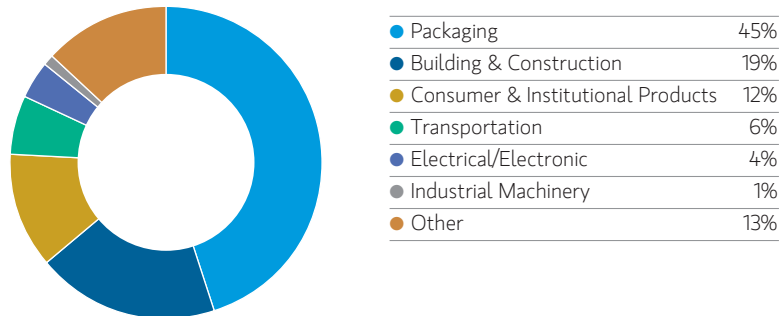
Globally, only around 10% of plastic waste³ is effectively recycled. Current recycling technologies are expensive relative to the costs of virgin plastic, driven by high collection and sorting costs. They are unlikely to attract enough investment into incremental capacity, absent additional regulatory or economic incentives. The problem is aggravated by contamination of used plastic packaging and proliferation of different plastic types (PET, HDPE, LDPE, PP, PS, etc.),⁴ which leads to processing waste—about one third of collected material cannot be recycled (*Display 2*). Additionally, consumers do not put plastics in the correct bin, reducing collection rates, and different plastic types have different levels of recyclability. PET drink bottles are the most effective to recycle, which is good news for beverage manufacturers. Many other plastics, however, are not economically recyclable using current technologies. These include single-dose sachets of shampoos and other liquids, which are popular in emerging markets.

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DISPLAY 1
Total plastic production

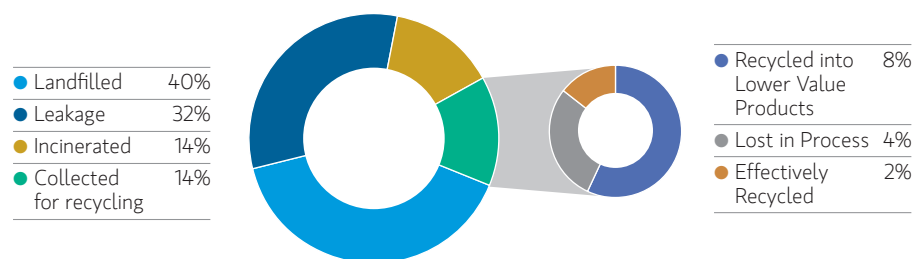


How plastic is used



Source: "Production, use and fate of all plastics ever made" by Geyer, Jambeck & Law. July 2017

DISPLAY 2
As much as 86% of plastic packaging waste is disposed of or littered



Source: World Economic Forum via the UN Environmental Program, 2015.

¹ Ellen MacArthur Foundation, World Economic Forum and the Ellen MacArthur Foundation, with analytical support from McKinsey & Company, January 2016.

² ibid

³ World Economic Forum, 2016

⁴ Types of plastic include: PET - Polyethylene Terephthalate, used in e.g. water bottles, dispensing containers and biscuit trays; HDPE - High-Density Polyethylene e.g. shampoo bottles

and milk bottles; LDPE - Low-Density Polyethylene e.g. food packaging film; PP - Polypropylene e.g. microwave dishes, bottle caps; PS - Polystyrene or Styrofoam e.g. cutlery, plates, cups.

Unfortunately, in most cases governments do not have sufficient recycling infrastructure in place, including in developed markets. In many countries there is often no waste collection infrastructure, let alone recycling infrastructure. Ocean plastic accounts for around 5% of global plastic waste and ten rivers, two in Africa and eight in Asia, carry 90% of the plastic entering our oceans. In theory, the best single solution for ocean plastic would be for all governments to invest in basic waste collection infrastructure to bring it up to the standard of market leaders, but unfortunately this is unlikely to happen in the foreseeable future.

Solutions that Embrace the Circular Economy

Glass, metal and paper have much higher recycling rates than plastic, and while some shift back to these materials may happen on the margin, we cannot retreat from plastic completely. Plastic has the best weight-to-strength ratio and food preservation qualities. Glass is very heavy, leading to higher transport emissions, and both virgin glass and aluminium require significantly more energy for production. Paper does not have the barrier properties to keep food fresh for long. The world already wastes one third of its food, and without plastic we would waste more.

Since we cannot eliminate plastic, the main opportunity is to make it 'circular'—reuse and recycle significantly more of it. The whole supply and value chain has to change, involving not just the companies, but also governments and consumers. There is no single solution; various options have to be implemented simultaneously even to make a dent in the growth of plastic pollution. Regulation will play an important role, but first we outline some practical and technological solutions, *ranking them in order of potential impact*, at least in the foreseeable future.

THE CIRCULAR ECONOMY CONCEPT

"The linear economy has to change. We must transform all the elements of the take-make-waste system; how we manage resources, how we make and use products, and what we do with the materials afterwards. Only then can we create a thriving economy that can benefit everyone within the limits of our planet."

– The Ellen MacArthur Foundation

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I. CONSUMER COMPANIES INCORPORATE MORE RECYCLED CONTENT IN THEIR PACKAGING

Most large FMCG companies have now committed to increase the use of recycled plastic to 25-50% of their total plastic needs by 2025-30. The signatories of Ellen MacArthur Foundation's Global Commitment, one of the largest plastic initiatives, represent about 20% of global plastic packaging volumes. Their current commitments amount to 5mn tonnes of incremental demand for recycled plastic, which is more than the current size of the recycled plastic market (estimated to be around 3.5mn tonnes annually). If these targets are met, it should spur investment into collection and recycling infrastructure. However, these numbers pale in comparison with the overall volume of plastic packaging used globally—around 140mn tonnes a year. For example, Coca-Cola's bottling system is the single largest FMCG user of plastic packaging, but only accounts for 2% of

the world's total. While we may look to larger companies to lead the way, smaller producers will also have to join this initiative to have a material impact on the total amount of plastic waste leaking into the environment.

II. IMPROVING PACKAGING DESIGN: USING FEWER TYPES OF PLASTIC, REDUCING WEIGHT AND INCREASING RECYCLABILITY

As part of the Global Commitment, most FMCG signatories have also committed to 100% recyclability, reusability and compostability of their packaging by 2025. Currently about 70-80% of a typical large global consumer staples company's packaging is already recyclable, so this goal is ultimately achievable. One of the ways to achieve this target is to replace harder-to-recycle plastics such as polystyrene and polypropylene with widely-recycled ones, e.g. PET. Coca-Cola's plastic bottles are already 100% recyclable and Reckitt Benckiser was the first to design completely recyclable spray bottle heads.

In addition, many companies have already been working on gradually reducing the weight of packaging per unit of product, and we believe these efforts will continue. L'Oréal has already made good strides, now offering the lightest bottles on the market, and Unilever has reduced its packaging weight per consumer use by 13% since 2010.

Most FMCG signatories have committed to 100% recyclability, reusability and compostability of their packaging by 2025.

There are more radical ideas to reengineer everyday products—for example going back to bar soap and shampoo bars and powder detergents, which need less or no plastic packaging and are lighter—but it is unclear whether they will be embraced by consumers *en masse*. The net environmental benefit of powder products over liquids is also debatable.

III. RETURNABLE/REFILLABLE PACKAGING

Several countries and companies have developed effective returnable or refillable systems for beverages. For example, Germany has had a bottle return system for a number of years and Coca-Cola offers refillable bottles in some Latin American markets. These solutions cover a small percentage of the total beverage packaging volume but are likely to grow from here. Although building and operating more refillable packaging infrastructure, such as return logistics, may be costly, the companies would save on the cost of containers, which can be re-used several times instead of just once. Such systems are often used in conjunction with the deposit return schemes that are discussed below.

It is not only beverage manufacturers trialling refillable packaging. The most recent high-profile pilot project is TerraCycle's Loop, in partnership with several large FMCG companies. Consumers order refillable versions of various brands online and when they are delivered, hand back the empty packaging from the previous order to the driver, to recoup the deposit they paid.

Another option is to install refill tanks in shops, although we believe such an

option will take time to gain ground, as consumer and retailer acceptance is likely to be slow. Retailers would have to allocate additional space and resources to such schemes and consumers may perceive it as an inconvenience. Packaging may also have to be standardised, which could reduce brand differentiation. Also, many types of soft plastic packaging are not reusable by definition.

Nascent chemical recycling technologies promise, in principle, to achieve a radical improvement in efficiency.

IV. CHEMICAL RECYCLING

Current recycling technologies are essentially mechanical, with collected waste separated by plastic type, cleaned, chopped and melted into pellets, which are then reused to make new packaging. Some incremental improvements in costly sorting and cleaning, as well as contamination and processing losses, are possible. For example, recently several companies have announced they have found a way to detect and sort black plastic bottles that previously could not be picked up by infra-red scanners at sorting facilities.

Nascent chemical recycling technologies promise, in principle, to achieve a radical improvement in efficiency. They use either a chemical reaction to extract virgin-grade material from unsorted contaminated plastic waste, or use high temperatures (pyrolysis) to convert the plastic back into the original feedstock (oil and gas), in an infinite loop. Several companies are seeking to commercialise these technologies, notably Loop Industries who have signed take-off agreements for the entire output of their pilot plant with several leading FMCG companies including Procter & Gamble, Reckitt Benckiser, Nestlé and Clorox.

Another example is Ioniqa who have partnered with Unilever and Coca-Cola. While investment in such technology is promising, successful chemical recycling is likely to take a relatively long time to scale.

V. BIOPLASTICS AND OTHER NOVEL MATERIALS

We believe that bioplastics (comprising both biodegradable and plant-based plastics), while innovative, are unlikely to become large-scale in the near term. They make up less than 1% of the market today, as they sell at a premium and have technical limitations for use. Biodegradable plastics need separate collection in order not to contaminate the recycling stream, requiring investment in additional infrastructure. The bioplastics currently available need to be sent to an industrial composting facility as they cannot degrade naturally in the ocean/soil.

There is some discussion around truly bio-degradable plastics (and alternatives such as seaweed- or hemp-based materials), but they are nascent ideas and, even if proven to be technically and economically feasible, would take a long time to scale. Another obvious drawback of bioplastics is that the material is lost in the process (unless it is converted into bio-gas), whereas recycled plastic has commercial value.

Tighter regulations on plastic are already expanding, especially in Europe.

Regulation is Coming

We believe regulation will play a crucial role in providing economic incentives for circular plastic, helping new technological solutions to spread and encouraging further changes in consumer and corporate behaviour. Tighter regulations on plastic are already expanding, especially in Europe.

Regulations can be categorised into three broad types:

I. REGULATIONS ENCOURAGING GREATER USE OF RECYCLED MATERIAL

Examples include taxes on virgin plastic (the UK has announced one for 2022) and mandated minimum recycled content levels. On the latter, the European Union (EU) has recently adopted a target to incorporate 25% of recycled plastic in PET bottles from 2025 and 30% in all plastic bottles from 2030.

II. REGULATIONS ENCOURAGING HIGHER COLLECTION RATES OF PACKAGING WASTE

The second type includes introducing or increasing 'extended producer responsibility' (EPR) fees, which require producers to cover more of the net cost of dealing with all of their packaging waste as well as deposit return schemes (DRS) for beverage bottles. These measures improve the relative economics of recycling and encourage more collection.

Germany has the strictest EPR regime: manufacturers have to cover 100% of packaging waste management costs. It may serve as a blueprint for other countries.

Plastic bags are officially banned in 25 African countries and have been banned and taxed in many EU countries

DRS already exist in several countries, and the UK is now in the consultation stage for the introduction of one. The EU has established a 90% collection target for plastic bottles by 2029 and DRS are considered the main tool to increase collection rates. Norway already has a 95% PET bottle collection rate thanks to its scheme, which benefits Tomra, the global leader in reverse vending machines for consumers to return their bottles.

DISPLAY 3

New Plastics Economy Global Commitment Signatories: Consumer Staples Companies with more than US\$10bn in annual revenues

COMPANY	% RECYCLED CONTENT TARGET BY 2025	COMPANY	% RECYCLED CONTENT TARGET BY 2025
The Coca-Cola Company	50% (2030)	L'Oréal	30%
Colgate-Palmolive	25%	Mars	TBD
Danone	40%	Nestlé	15%
Diageo	40%	PepsiCo	25%
Essity	TBD	Pernod Ricard	TBD
Henkel	20%	Reckitt Benckiser	25%
Johnson & Johnson Consumer Inc.	TBD	SC Johnson	15%
Kellogg	TBD	Unilever	25%

III. OUTRIGHT BANS ON CERTAIN TYPES OF PLASTIC

Plastic bans are also spreading. For example, plastic shopping bags have already been banned or taxed in many EU countries and are officially banned in 25 African countries. It is important, however, to differentiate between plastic that can and cannot be easily banned. Bans to-date have been focused on plastic where more sustainable alternatives already exist—shopping bags, cutlery, plates, straws. This does not directly impact FMCG manufacturers. Banning plastic primary product packaging in food, beverage and household and personal care categories is much less likely due to the lack of suitable alternatives and safety issues.

Most of the consumer staples companies we engaged with have begun to take the topic seriously.

Engaging with our FMCG Holdings: Expected Impact of the Shift to Circular Plastic on their Strategies and Financials

It is clear that most of the consumer staples companies we have engaged with have begun to take the topic seriously. Many have adopted much more ambitious targets on recycled content use and recyclability, ahead of many smaller companies. This should help them prepare for the upcoming regulations and mitigate any reputational risk as consumers' awareness of the plastic problem continues to rise.

IMPACT ON FINANCIALS

We believe the impact on consumer staples companies' operating costs for the foreseeable future is limited. While companies generally do not disclose how much they currently spend on plastic packaging, and their exposure to plastic varies, it is possible to make assumptions about the general magnitude of potential change.

It is likely that the cost of recycled plastic will rise in the medium term as increasing demand from FMCGs will outpace supply, but in the long run enough capacity should come on stream to bring prices

down. Even assuming recycled plastic feedstock sells at a 50% premium to virgin plastic (which is significantly higher than historical averages) in perpetuity, on our estimates the theoretical impact on a typical FMCG company that targets 50% recycled content would be limited to around 1% of sales.

Similarly, the net costs of tighter extended producer responsibility fees and deposit return schemes are likely to amount to low-single digit percentages of sales, even if they spread globally.

It is important to bear in mind that strong consumer brands have significant pricing power and have historically managed to pass a significant proportion of their input cost inflation to their customers. We believe this would also apply to plastic. Similar to any other raw material inflation, if regulation increases companies' costs, every company in a given country will be impacted in the same way and will likely try to pass cost increases onto consumers. Given low price elasticity in consumer staples, we believe the volume impact of such industry-wide price increases would be limited.

We have started to see examples of sustainable plastic being used by brand owners as a marketing tool.

IMPACT ON BRANDS

The other potential issue is the impact of plastic on brand equity. Will consumers turn their back on the brands they perceive are not dealing with the problem? While this may happen in the long term, and companies should address this proactively, there is little evidence it is happening yet. In line with many other environmental and societal issues, most consumers state in surveys that they are worried about plastic, but in practice this hasn't impacted their brand choices to the same extent that overall brand perception, price and functionality have.

Having said this, we have started to see examples of sustainable plastic being used by brand owners as a marketing tool. Several companies have launched certain brands in 100% recycled packaging and

advertised this on the package. Small initiatives, such as Ocean Plastic or Social Plastic, use plastic collected by small-scale recyclers in emerging markets or picked from the ocean and beaches. It would be fair to assume such initiatives will spread in the future.

Conclusion

We believe that the best way to compound shareholders' wealth in the long term is by owning high quality companies with sustainably high returns on operating capital. Material social and environmental risks to the sustainability of these returns are more important than ever, and FMCG companies can no longer afford to ignore the high-profile plastics problem. By actively integrating ESG into our investment process and engaging directly with corporate management, we have focused on the material risks and opportunities of the plastics conundrum on the companies we hold. While plastic waste remains a key challenge for the planet, for the companies we hold it does not yet appear a major risk. Indeed for those companies leading the way on plastic solutions, it likely presents a significant opportunity to differentiate themselves from their peers.

Key Takeaways

- Plastic is high on the corporate agenda. Most large FMCG companies have *dramatically increased their virgin plastic reduction commitments*, ahead of the rest of the sector.
- *More regulation is coming*, including taxes and restrictions on virgin plastic. This, as well as rising demand for recycled plastic, may mean total costs of plastic packaging increase temporarily in the next several years.
- However, the *net cost to companies is unlikely to be material*. We estimate these to amount to low single-digit percentages of sales. Pricing power and low price elasticity in consumer staples should help pass any increase in costs onto the consumer.
- Technological solutions alone will not be the panacea; *the whole value chain needs to evolve and make plastic 'circular'*.
- Consumers may walk away from brands using virgin plastic eventually, but there is no evidence it is happening yet at scale. If it does happen, *sustainable packaging may become a powerful brand differentiation tool* for those companies that transition to it first.

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