

## Schumpeter | Lacking flexibility

*The plastics business has yet to come to terms with a backlash against its products*



AS WESTERN HOLIDAYMAKERS escape their daily grind and head to the beach this summer, a concern is likely to resurface—literally, if it washes up on the pristine sand in front of them. In the past two years plastic litter in the ocean seems to have eclipsed other environmental anxieties among rich-world consumers. Harrowing images of sea life ensnared in plastic bags, as depicted in “Blue Planet II”, a popular British television series from 2017 presented by Sir David Attenborough, would be enough to make anyone choke on the plastic straw in their piña colada—if, that is, you were offered one. Politicians everywhere are responding to voters’ demands by banning straws, stirrers and other single-use plastics. The UN says that last year 127 countries had restrictions on plastic bags. This month Panama became the first Central American country to outlaw them. Britain is considering a tax on plastic packaging made with less than 30% recycled content. In March 560 members of the European Parliament backed a law that would require 90% of plastic bottles to be recycled by 2029. Just 35 voted against.

Given the environmental footprint of substitutes like cotton bags, aluminium cans or paper boxes—which often require more energy and water to make and transport than plastic equivalents—new regulations could in fact end up doing harm to the planet. Nonetheless the plastics industry can expect ever more curbs on its products, a trend that will force businesses involved to reshape. Bottles, boxes, films and the like consume nearly half of global output of the polymers on which they rely. Many companies in the \$375bn plastic-packaging value chain—which comprises producers of oil and gas (the main feedstocks), petrochemicals giants, packaging firms and consumer brands—look ill-prepared.

Companies at either end of the chain are the least vulnerable. Beverage-makers will happily switch from oil-derived plastic to recycled stuff for their bottles—or to aluminium cans—so long as the numbers add up (which they do when high oil prices push up the cost of virgin plastic). Even so, ExxonMobil or Coca-Cola cannot relax. Seema Suchak of Schroders, an asset manager, estimates that fizzy-drinks firms that fail to reduce their reliance on virgin plastics could see annual profits shrink by 5% over the next decade or so because of regulations and taxes spurred by the consumer backlash. According to Paul Bjacek of Accenture, a consultancy, re-

cycling all plastic packaging, rather than the 15% that is reused today, could cut annual growth in demand for oil and gas from 1% to 0.5% by 2040, as recycled materials gain market share.

Plastic-packaging firms could suffer more. Credit-raters at Moody’s have warned that Britain’s proposed tax on plastic bottles could hurt their makers by discouraging use by consumer-goods companies and driving up the cost of recycled plastic, a scarce raw material as recycling rates are low. Ms Suchak looked at five big makers of plastic packaging and found that the pre-tax profits of four of them could fall by 11-33% in the medium term if they stick with virgin plastics. Amcor, an Australian giant, lists environmental concerns as the number-one risk in its latest annual report.

Then there is the petrochemicals industry. In a much-cited analysis from 2016, consultants at McKinsey calculated that the value of plastic disposed after a single use is \$80bn-120bn a year. Reducing that number could benefit society but harm purveyors of the virgin materials. Last year Spencer Dale, chief economist of BP, a British oil giant, estimated that more plastics regulation could reduce demand for petrochemicals by a sixth in the next 20 years. Around a quarter of the revenues of Germany’s BASF or DowDuPont of America come from plastics. Both could suffer. So could big oil firms, hoping that their petrochemicals businesses can offset a looming decline in fossil-fuel sales from a shift to renewable energy and electric cars. ExxonMobil already derives 15-25% of profits from chemicals, twice the share a decade ago. Saudi Aramco, the world’s oil colossus, agreed in March to buy 70% of SABIC, the kingdom’s petrochemicals firm, for \$69bn. It plans to plough a further \$100bn into new plants over the next decade. A similar sum may be invested in Chinese facilities to convert coal to polymers.

These investments would add to abundant capacity. Wood Mackenzie, a research firm, estimates that \$200bn has been sunk into petrochemical businesses since 2010 in North America alone. Were the increase in supply to collide with a secular decline in demand, profits would suffer. The price of polyethylene, a popular polymer, has already fallen by a third since the start of 2018.

### Remoulding opinions

Asked shortly after the premiere of “Blue Planet II” if looming regulations preoccupy plastics companies, a senior European lobbyist for the industry confessed to Schumpeter that they were not really a topic of conversation in boardrooms. They are now. Consumer brands are vowing to retrieve more of their packaging and to make more with recycled materials. BASF has launched packaging for mozzarella cheese made from polymers chemically recomposed from used plastics, perhaps spooked by upstarts that are working on something similar, such as Loop Industries of Canada. BP describes such “chemical recycling” as a “game changer”.

Firms are cagey about the extent of such efforts. Industry analysts suspect it is not large. Perhaps plastics executives are counting on the force of reason to prevail, or for Asian consumers not to succumb to plastic panic. This may be wishful thinking. People are easily persuaded that an eyesore despoiling their holiday paradise is intolerable; making them care about invisible, odourless carbon dioxide is tougher. In a contest with the logic of trade-offs, the emotive power of Sir David’s cinematography is likely to win. Hard-nosed polymer bosses should remember that. ■

**Correction:** A bug crept into “Firefox and friends” (July 20th). We said that volunteers contributed half of Mozilla’s computer code. In fact, they mostly help with software patches and customer service. Sorry.