

The following is an excerpt from "The Plastics Paradox," originally published July 17, 2019 [51 pgs].



5 takes on plastics that may surprise you		
	Popular belief	GS Research view
1	Rising pressure on single use plastic will significantly reduce global plastics demand growth.	We estimate recycling and changing consumer habits will lower demand growth by 60 bps over next decade (versus normalized 3.8% CAGR).
2	Many believe traditional packaging alternatives (eg. Aluminum, Glass) will retake substantial market share.	Traditional alternatives carry higher carbon footprints over the full cycle of the environment. We see biggest threat from alternatives for PET bottles in DMs due to rising consumer perception risks.
3	Many believe bio based plastics are degradable in the natural environment and will gain a substantial share in plastics packaging.	Bioplastics carry mixed environmental benefits: ~42% of total bioplastics are biodegradable (only when certain environmental conditions are met), they can contaminate the quality of scrap if mixed with a regular plastics bin, and their growing demand generates higher competition for food sources.
4	Improving consumer habits and regulations can drive a meaningful rise in plastic recycling rates.	Concerted efforts in waste management are required from all stakeholders like consumers (self-sort waste), governments (economic incentives as returns from recycling are oil-linked) and companies in the plastics value chain (packaging redesign).
5	All plastics are made equal and will see a demand slowdown ahead.	Plastics that are easier to sort/recycle and have lower substitution risks could see significant

demand outperformance ahead.

Disclosure information available at www.gs.com/disclosure-equity.