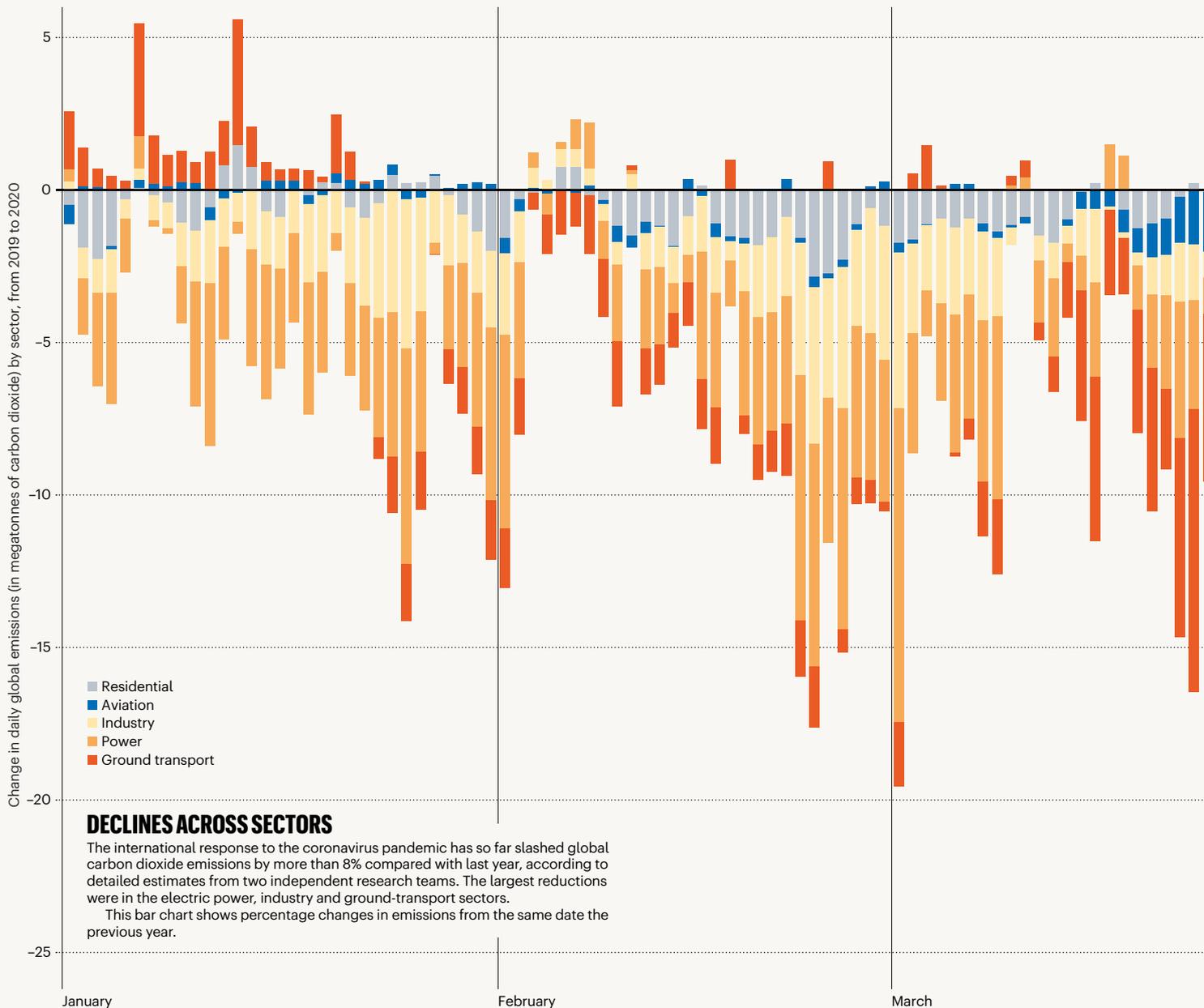


CARBON IN THE TIME OF COVID-19

Near-real-time data show which sectors, countries and events had the most impact on slashing carbon emissions, but it is unclear how long the dip will last.

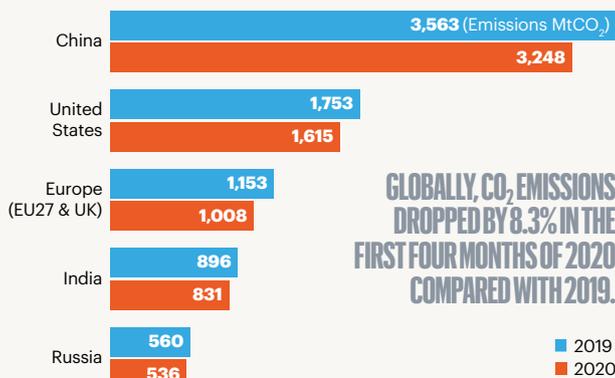
By Jeff Tollefson. Design by Paul Jackman.



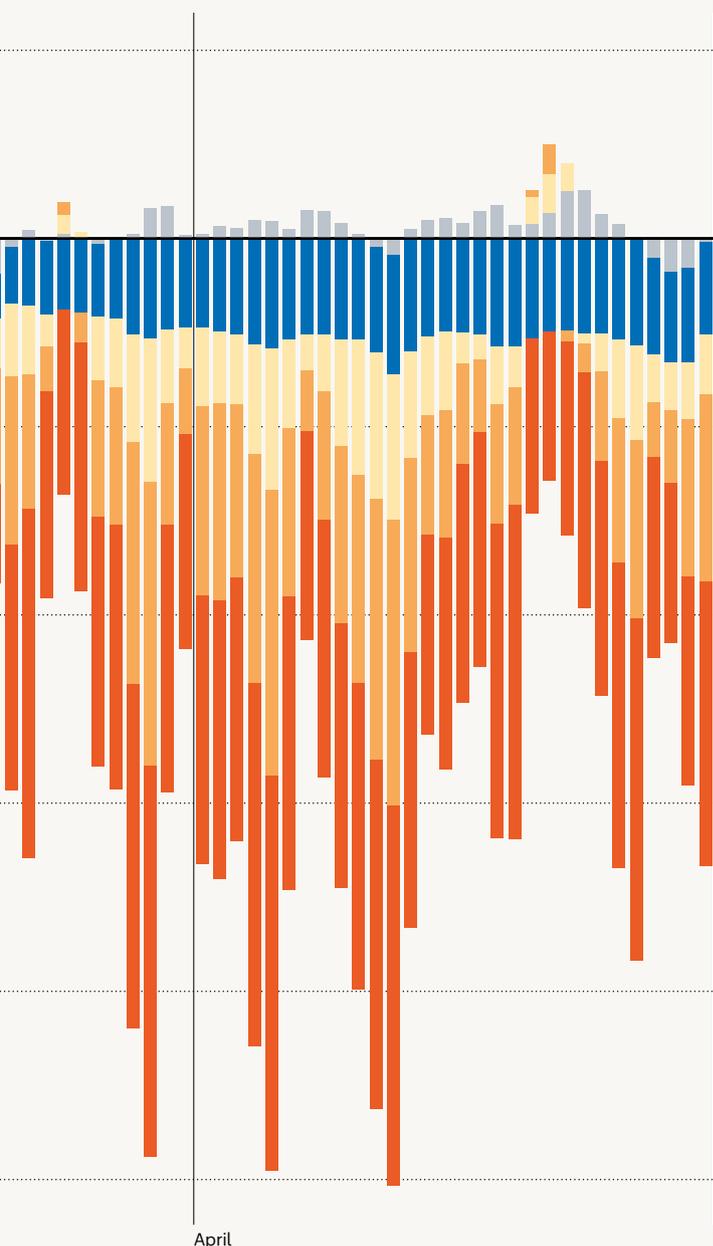
SOURCE: V-SHAPED RECOVERY: C. LE QUÉRÉ ET AL. NATURE CLIMATE CHANGE HTTP://DOI.ORG/GGW9W (2020); ALLOTHER CHARTS: Z. LIU ET AL. PREPRINT AT HTTP://ARXIV.ORG/ABS/2004.13644 (2020)

CHINA LEADS

The country with the largest impact on emissions was China, where CO₂ emissions declined by an estimated 315 million tonnes — roughly the annual carbon emissions of France. Figures started to fall in January, coinciding with the Lunar New Year, and they stayed low, accounting for a 10% reduction until the end of March compared with last year. As economic activity picked up in China, other countries went into lockdown mode, depressing global emissions throughout April.



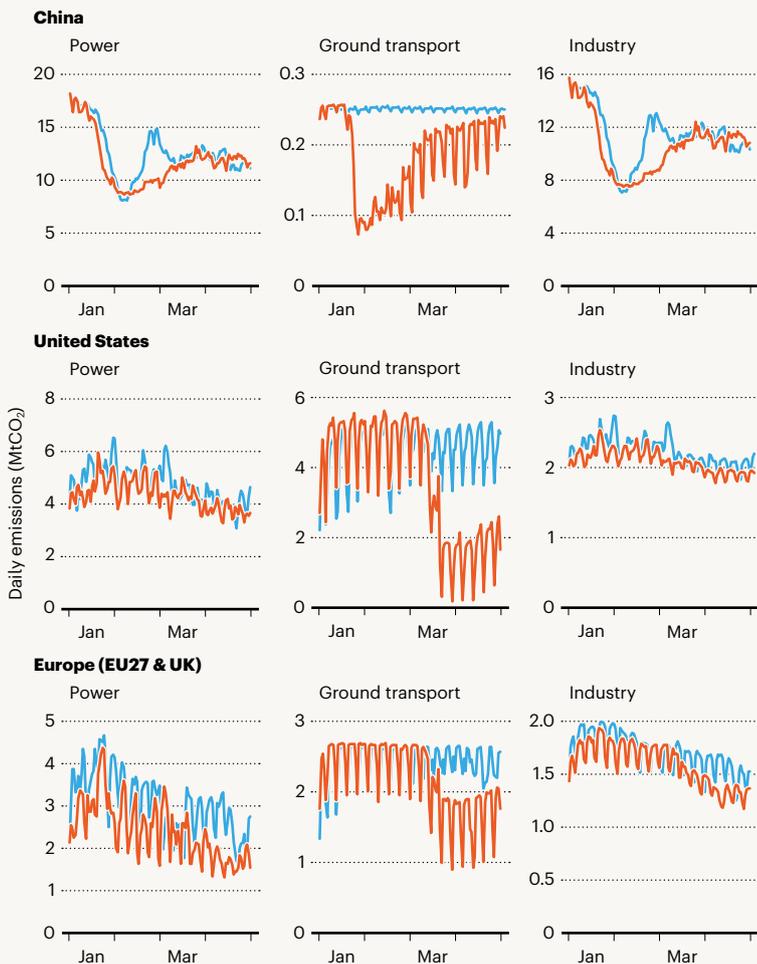
GLOBALLY, CO₂ EMISSIONS DROPPED BY 8.3% IN THE FIRST FOUR MONTHS OF 2020 COMPARED WITH 2019.



DIVERGENT PATHS

Pulling information from a range of sources — including energy and weather reports, satellite-based observations and traffic data collected by vehicle-navigation systems — both research teams produced detailed assessments of various sectors in several countries. After China's initial decline, industrial and power emissions there sprang back. In Europe and the United States, the largest declines have been in the transport sector.

— 2019 — 2020



AV-SHAPED RECOVERY?

The scale of the emissions reduction this year could be similar to the annual cuts required to meet the objectives of the 2015 Paris climate agreement, which seeks to limit global warming to 1.5–2°C above pre-industrial levels. If the 2008 economic recession is any guide, however, emissions could recover quickly.

