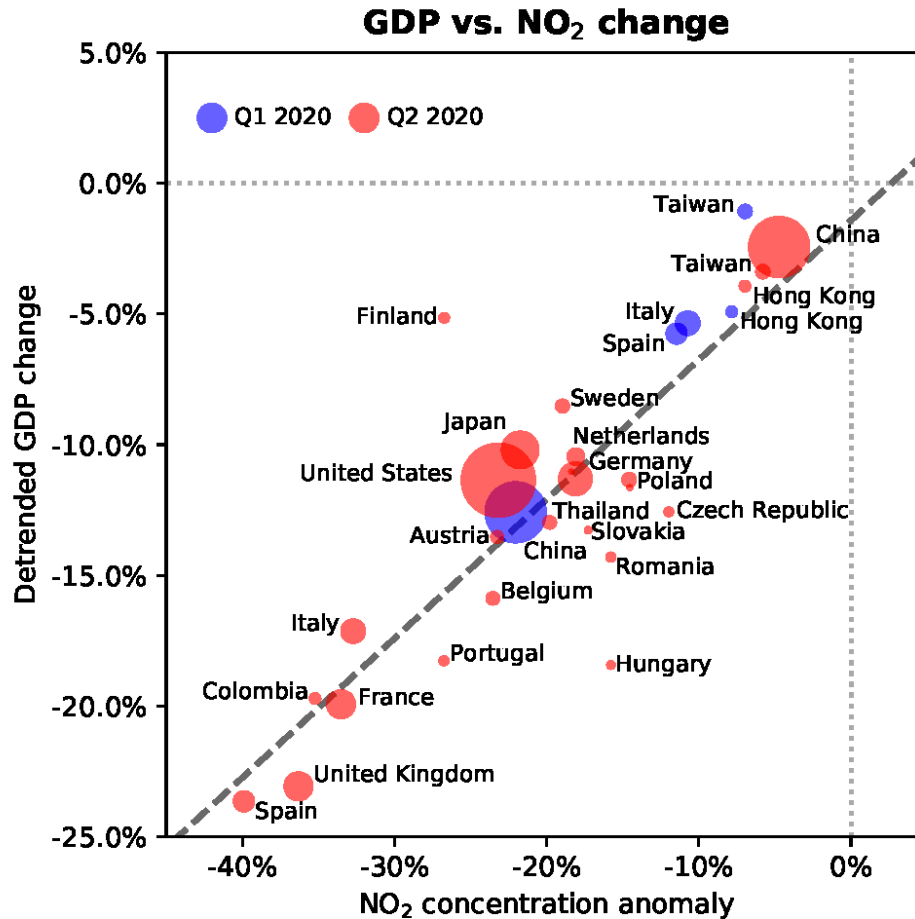


# Declines in Atmospheric Pollution During the COVID-19 Lockdown are Consistent with Contraction in Economic Output



Combining surface observations and model simulations from the NASA GEOS composition forecast (GEOS-CF) system offers a unique way to quantify the change of nitrogen dioxide (NO<sub>2</sub>) related to COVID-19 containment measures (Keller et al., 2020).

Estimated declines of NO<sub>2</sub> in the wake of the pandemic closely correlate with contraction of Gross Domestic Product (GDP), highlighting the strong relationship between atmospheric NO<sub>2</sub> concentrations and economic activity.

The figure shows country-wide decreases in surface NO<sub>2</sub> compared against year-over-year GDP growth for the first (Q1, blue) and second (Q2, red) quarter of 2020. Sizes of the circles correspond to sizes of the economy.

Keller et al., <https://arxiv.org/abs/2008.01127v1>, 2020.