Walking the tightrope: avoiding a lockdown while containing the virus

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Context

• Policy question: reduce the spread of the virus while minimising the economic costs of containment (and public health) policies

• Containment measures
  – stay-at-home requirements, school and workplace closings, restriction on gatherings and public events, closure of public transport, travel bans, etc.

• Public health measures
  – TTI, mask-wearing, testing and visit restrictions in care homes, etc.
• Empirical evidence based on first wave of pandemic (2021H1)
  – Egert, Guillemette, Murtin and Turner (WP 1633, 2020)

• Analysis of the effects of policies on the reproduction rate, R, and mobility as proxy for economic activity;
  – OECD and Oxford indicators; daily data, 70+ countries
The reproduction rate fell after the first lockdown, but variation across countries

Median and interquartile range for effective reproduction rate (R)

A. Worldwide sample

B. European sample

Note: The chart summarises trends in \( R \) for a selection of worldwide (Panel A) or European (Panel B) countries for which \( R \) can be computed over the full sample period.
Main finding: policies reduce (logged) R; effects vary across countries

Note: Average of coefficients estimated using OECD and Oxford University policy indicators.
Stylised scenarios: policies to minimise the economic cost of containment
What works best?

• **HIGH infection rate** => containment policies required, but big negative effect on mobility

• **LOW infection rate** => test-and-trace a better alternative.
  – More effective with comprehensive contact tracing & effective isolation, also extended to care homes.

• Other public health policies effective at little or no mobility cost:
  – Mandating mask-wearing in public indoor environments;
  – restricting visits to care homes;
  – and stay-at-home recommendations for the elderly.

• Still may need to resort to selective containment measures.
New elements: more infectious variants can boost R for a given policy package.

A. Median reproduction rate (R) and interquartile range, OECD countries

B. Percentage of all sequenced cases of COVID-19 that are from the B.1.1.7 variant, selected countries

- United Kingdom
- Poland
- Netherlands
- Italy
- Germany
- Sweden
- France
To come: the key role of vaccination, but rates vary across countries

Source: Official data collated by Our World in Data
Thank you