1. Sectoral effects of social distancing

2. Jean-Noel Barrot HEC Paris barrot@hec.fr – Julien Sauvagnat Bocconi University julien.sauvagnat@unibocconi.it – Basile Grassi Bocconi University basile.grassi@unibocconi.it

3. Abstract
   The health crisis caused by the outbreak of the Covid-19 virus has led many countries to implement drastic social distancing rules. By reducing the quantity of labor, social distancing in turn leads to a drop in output which is difficult to quantify without taking into account relationships between sectors. Starting from a standard model of production networks, we analyze the sectoral effects of the shock in the case of France. We estimate that six weeks of social distancing brings GDP down by 5.6%. Apart from sectors directly concerned by social distancing measures, those whose value added decreases the most are upstream sectors, i.e. sectors most distant from final demand. The same exercise is carried out for other European countries, taking into account national differences in sectoral composition and propensity to telework. Finally, we analyze the economic impact of selectively phasing out social distancing by sector, region or age group.

4. We use data from public sources
   Input-output tables from French Statistical Office and World Input Output Tables European Community survey on the use of ICT and electronic commerce in business (from Eurostat)
   Anonymized Individual data from French Census

5. JEL codes for the project: E32, I10, I18, H1, L14, E32, E23

6. Keywords: Covid-19, social distancing, production networks