

COVID-19 and Telework: An International Comparison

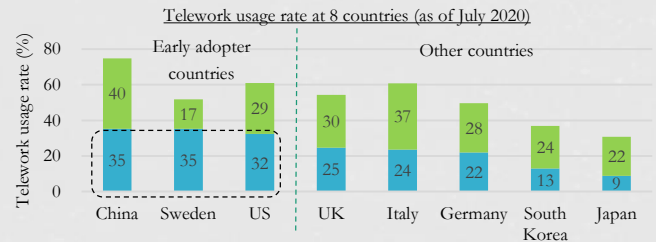
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Abstract:
 We examine patterns of telework adoption within and across countries, and at two different time periods, before and after the Covid-19 pandemic. We use individual-level microdata in eight countries: U.S., U.K., Germany, Italy, Sweden, China, South Korea and Japan. Diffusion of telework is unevenly distributed with respect to demographics and socio-economic status, especially during the early phase of diffusion, with younger persons and higher income individuals gaining greater access than their counterparts. We also confirm that timing of telecom use has lingering effects on satisfaction and other work outcomes.

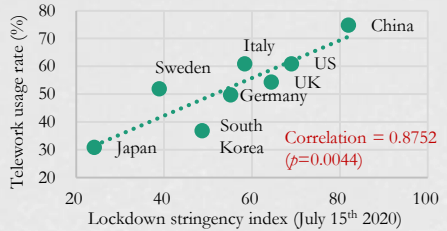
Aim:
 ✓ We examine patterns of telework adoption within and across countries, and at two different time periods, before and after the Covid-19 pandemic.

Question: Who uses telework?
 ✓ Introduction of new technologies often results in an uneven distribution of haves versus have-nots.
 ✓ This distribution is usually skewed towards a privileged group.

Data:
 ✓ Cross-country microdata collected by the Nomura Research Institute (NRI) in July 2020
 ✓ 8 countries: U.S., U.K., Germany, Italy, Sweden, China, South Korea and Japan
 ✓ Age of respondents: 15 to 69
 ✓ Sample size: 2,060 for each country x 8 countries = 16,480 obs
 • Caveat: Data in China and South Korea are biased to urban residents

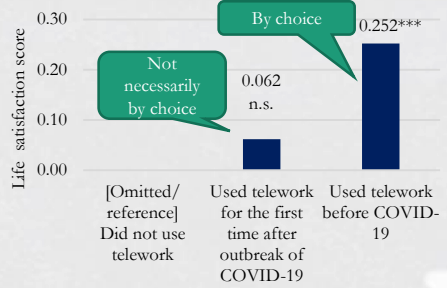


Telework usage rate and lockdown stringency (July 2020)



Source) Coronavirus Government Response Tracker, Oxford University

Telework use and life satisfaction



| | Early adopter countries | | | Other countries | | | | |
|---|-------------------------|-----------|-----------|-----------------|---------|-----------|-------------|----------|
| | China | Sweden | U.S. | U.K. | Italy | Germany | South Korea | Japan |
| Used telework for the first time after outbreak of COVID-19 | n.s. | n.s. | n.s. | 0.254* | 0.295** | 0.498*** | 0.616*** | 0.612*** |
| Firm size effect ^b | 0.43* | n.s. | 0.406** | n.s. | 0.291* | 0.581*** | n.s. | 0.590*** |
| Used telework before COVID-19 | 0.283*** | 0.274** | 0.365*** | 0.369*** | n.s. | n.s. | n.s. | n.s. |
| Firm size effect ^b | 0.409* | -1.011*** | -0.704*** | -0.431*** | n.s. | -0.511*** | n.s. | n.s. |

Note: Numbers show coefficients of Probit models. *** $p < .01$, ** $p < .05$, * $p < .1$
^a **Income effect:** How likely the top 25% income people use telework compared to bottom 25%
^b **Firm size effect:** How likely the workers at large firms (more than 1000 employees) use telework compared to establishments with less than 5 employees.

<Key findings>

- ✓ Telework use is higher in countries with strict lockdowns, e.g. China, and lower in countries with loose lockdowns, e.g. Sweden, Japan.
- ✓ Digital inequality (with respect to income) in early adopter countries is more visible for “before covid-19 teleworkers”; in other countries it is more visible for “after covid-19 teleworkers.”
- ✓ Telework use was confined to small establishments (with less than 5 employees) before covid-19. This trend totally flipped after covid-19. Telework use is now significantly higher in larger establishments (with more than 1000 employees).
- ✓ Life satisfaction is significantly higher for people who started using telework before covid-19 than after.