

Targeting R&D Subsidies to Clean Technologies to Address Climate Change and Boost Productivity

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A big part of addressing climate change and avoiding many other current practices that destroy natural capital requires a shift in R&D investments towards so called "Clean" technologies. This shift can be beneficial to long term growth if the social return of R&D investments in clean technologies is higher than the return for dirty technologies. One reason why this could be the case is that knowledge spillovers in clean technologies are stronger than in dirty technologies. In recent research (https://cep.lse.ac.uk/_NEW/PUBLICATIONS/abstract.asp?index=8614) we have proposed a new approach to measure and value innovation spillovers as well as the response to R&D subsidies by governments and public agencies. This research shows that the returns to R&D vary greatly between different technologies. Moreover, which technologies generate the highest returns varies from country to country. It also matters substantially, if we consider global spillovers versus more localised "national" spillovers only. In a new study we are working with the UK government department for Business to develop indicators and a framework that would allow the relevant UK government agencies to target R&D subsidies for specific clean technologies in ways that do not only help to address climate change mitigation but also provide a boost to productivity growth.