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Press Release

Corporate Emissions Inflict Significant Costs on Society / Disclosure Could Help Reduce Emissions

The average societal costs caused by corporate carbon emissions roughly equal 44 percent of the firms' operating profits. This is shown in a new study conducted by researchers from the University of Chicago as well as the Graduate School of Economic and Social Sciences (GESS) of the University of Mannheim and the Collaborative Research Center TRR 266 Accounting for Transparency (TRR 266). Mandatory disclosure would provide the data necessary for efficient climate policies and market signals, as well as possibly increase pressure on companies to reduce emissions.

Under the new Corporate Sustainability Reporting Directive (CSRD) of the EU, companies will be obliged to disclose their carbon emissions as of 2024. The United Kingdom enacted similar reporting requirements and the U.S. Securities and Exchange Commission (SEC) is finalizing a climate disclosure rule this fall that would require companies to report their greenhouse gas emissions as well. But how would such disclosure help in addressing current climate challenges? A new study quantifies the costs – or the damages – from corporations' emissions and discusses how public disclosure could lead to lower emissions. The study considers roughly 15,000 publicly traded firms worldwide.

"Disclosure of emissions data is vital to holding firms accountable for their emissions," says co-author Christian Leuz, the Charles F. Pohl Distinguished Service Professor of Accounting and Finance at the University of Chicago's Booth School of Business. "The benefits of climate disclosure include unleashing data needed to build stronger climate policies, providing financial markets the data necessary to better price emissions, and the potential for stimulating voluntary reductions."

"Corporate carbon damages" roughly equal 44 percent of firms' operating profits
Leuz and his co-authors Patricia Breuer (University of Mannheim and TRR 266) and Michael Greenstone (University of Chicago) find that average corporate carbon damages are large, equaling about 44 percent of firms' operating profits. However, this average is heavily influenced by some companies with very large emissions. The median is only 3.6 percent. The authors emphasize that it is not possible to divide responsibility for these damages between the firms that make the products and consumers who buy them, but nevertheless refer to them as corporate carbon damages because the emissions come from production.

Disclosure could help reduce corporate carbon damages
“A key finding is that carbon damages per dollar of profits vary greatly across countries, across industries, and even across firms within a given industry,” says Greenstone, the Milton Friedman Distinguished Service Professor in Economics and director of the Energy Policy Institute at the University of Chicago (EPIC). “This suggests that mandatory disclosure could trigger high emitters, either on their own accord or due to consumer pressure, to reduce emission to match cleaner competitors.” In fact, the researchers estimate the reduction in emissions if all firms with carbon damages per dollar of profit above their industry’s median were to reduce to their respective industry median. They find that bringing the damages down to the median would reduce emissions by 70 percent.

Large differences between countries
Corporate climate damages also vary widely from country to country. The countries with the highest average carbon damages as a percentage of firm profits are Russia (129.6 percent), Indonesia (89.6 percent), and India (78.8 percent). The countries with the lowest are the United Kingdom (21.7 percent), United States (25.7 percent), and France (29.5 percent). Germany ranks towards the middle. The average carbon damages in Germany amount to 42.5 percent.

“Bringing transparency to the damages from firms’ emissions could galvanize pressure from stakeholders and help inform policy and markets,” says Patricia Breuer of the Collaborative Research Center TRR 266 Accounting for Transparency, who recently completed her doctoral studies at the Graduate School of Economics and Social Sciences at the University of Mannheim and will join Erasmus University Rotterdam as assistant professor in September. “But importantly, it would also allow firms and their shareholders and customers to see how they stack up against competitors and think more strategically about their emissions and the toll they are having.”

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