# In right balance, environmental regulations increased firms' profits, new study finds

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CEOs and corporate lobbyists often spend plenty of time decrying how potential government regulations will affect their bottom line, but a new University of Kansas study finds that the U.S. Clean Water Act, when implemented in the right balance, improves firms' profitability.

Between January 1995 and June 2001, when chemical manufacturing companies faced stringent wastewater discharge limits, but not strict government monitoring, or vice versa, companies were able to increase profitability, relative to companies simultaneously facing both loose limits and lax monitoring, according to the study published online recently in the *Journal of Regulatory Economics*.

"If an environmental agency pushes hard on a pollution limit, but does not monitor the limit too stringently, the agency creates a space in which companies can be creative and discover ways in which they can either market their environmental protection efforts to customers and secure a bigger market share or find less costly ways of manufacturing their products or dealing with waste," said lead author Dietrich Earnhart, a KU professor of economics. "The regulations put a different pair of glasses on companies; by looking through a new lens, companies get creative."

Earnhart's co-author was KU alumnus Dylan Rassier, who is an economist with the U.S. Bureau of Economic Analysis. The researchers examined wastewater discharge limit and government monitoring inspection data from the Environmental Protection Agency's Permit

Compliance System database and profitability data available for publicly traded firms from Securities and Exchange Commission filings.

They find that when wastewater discharge limits were stringent and inspections were frequent, profits declined, which follows conventional economic thinking. However, under conditions when one was stronger than the other, profits improved, consistent with the Porter hypothesis, which asserts that properly designed environmental regulations motivate businesses to innovate, eventually increasing profitability.

Earnhart said that it is plausible, by working to reduce the amount of discharged wastewater, firms became more thoughtful and assessed their operations more closely, finding new marketing opportunities or cheaper management practices.

"With a new perspective and with new information, these companies could find a way to defy conventional wisdom," Earnhart said.

While regulations aren't intended to increase profits, but instead to protect other interests, such as public health or environmental habitat, learning more about how to find a potential win-win scenario could help policymakers and regulators if they are looking for a way to reach a consensus in discussions with business interests.

"Any agencies working on clean water or clean air regulations should be concerned about how they induce compliance and what the trade-offs are," Earnhart said. "If there is a win-win situation, everyone should want to learn about it."

**More information:** Dietrich Earnhart et al, "Effective regulatory stringency" and firms' profitability: the effects of effluent limits and government monitoring, *Journal of Regulatory Economics* (2016). DOI: 10.1007/s11149-016-9304-8

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