

Paper examines climate risk and the fossil fuel industry

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Burning coal, oil and natural gas is responsible for two-thirds of the world's greenhouse gas emissions. Yet these same fuels are also the economic mainstay of resource-rich countries and the world's largest companies. According to a new working paper from Rice University's Baker Institute for Public Policy, this means that climate-change relief

actions represent danger for the fossil fuel business.

"Climate Risk and the Fossil Fuel Industry: Two Feet High and Rising" was authored by Jim Krane, the Wallace S. Wilson Fellow for Energy Studies at the Baker Institute. The paper compiles and describes the types of risk the fossil fuel industry faces as a result of climate-mitigation strategies.

"As climate-change effects grow more pronounced, there can be little doubt that an industry that produces 68 percent of human [greenhouse gas emissions](#) will find itself under increasing pressure," Krane wrote. "The risks to the industry correlate with progress on [climate goals](#). Unless a technological breakthrough can restrict carbon releases, the fortunes of the fossil fuel industry and the stability of Earth's climate will be locked in a zero-sum game. Climate's gain is the industry's loss and vice versa."

There are four main categories of climate risk for the fossil fuel industry, according to Krane:

- Policy risk: Government policies, regulations and pledges that reduce carbon emissions or policies that support competing technology.
- Demand risk: Decline in global fossil fuel demand due to climate and other factors.
- Divestment risk: Shareholder or grassroots activism that seeks to influence producer companies (and possibly countries) through financial or reputational means, or investor avoidance of fossil fuel shares.
- Competition risk: Rivalry for market share among producers seeking to monetize reserves before they are rendered unburnable; competition between fossil and noncarbon sources of energy.

Krane also outlines fuel-specific risks that are not shared equally among the three fossil fuel types—coal, oil and gas.

"It is clear that carbon-based businesses face increasing impediments to the consumption of their products," Krane wrote. "Whether through taxes, legal restrictions, moral arguments, favoritism for competitors or hampered access to financial markets, the industry faces a future that is less accepting of its current practices. Some businesses will not survive. For others, the risks warrant changes in strategic direction."

He stressed that "the greatest risk of all" is failure. "Businesses may face existential threats from climate action, but these are dwarfed by a far greater risk—the possibility that [climate](#) actions may fail."

More information: "Climate Risk and the Fossil Fuel Industry: Two Feet High and Rising" working paper: bakerinstitute.org/media/files...imateRisk-072116.pdf

Provided by Rice University

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