Does Private Equity Ownership Make Firms Cleaner? The Role Of Environmental Liability Risks

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Motivation

40% of **private equity** (PE) acquisitions during the last decade in the US are in industries that generate a significant quantity of pollution.
Pollution matters: affects public health, worker productivity, house prices, environmental sustainability and climate change. As such, pollution is highly regulated (Currie et Al 2019, Greenstone 2002) and environmental regulation is likely to increase with policies aimed at mitigating climate change.

Research question

Do PE owned firms have different incentives than privately-held or publicly traded firms in overcomplying to pollution limits? If so, why?

Empirical challenges

Challenge 1: Finding data on pollution, especially for small and private firms
Challenge 2: Omitted variable that could bias the relationship between pollution and PE ownership

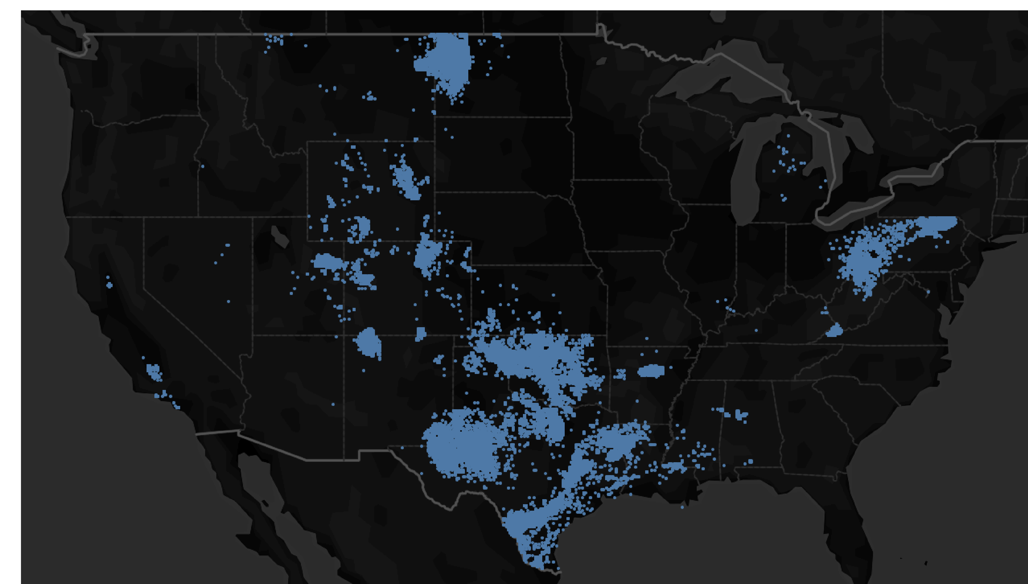
Suggested solution

Focus on the **oil and gas industry**, that attracts an important fraction of PE capital and produces a significant amount of pollution.

Merge administrative data on the chemicals used during the production process and commercial data on the characteristics of wells to information on whether the well is flared using advances in satellite remote sensing.

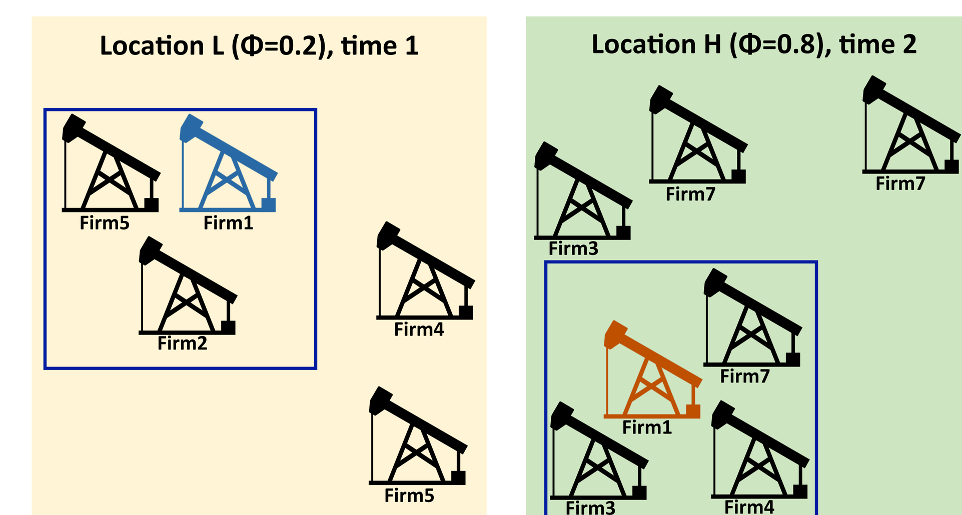
Data

135,503 projects started between 2010 and 2019.
Between 75 and 135 billion dollars.
106 final PE deals with transfer of ownership made by 55 PE firms.



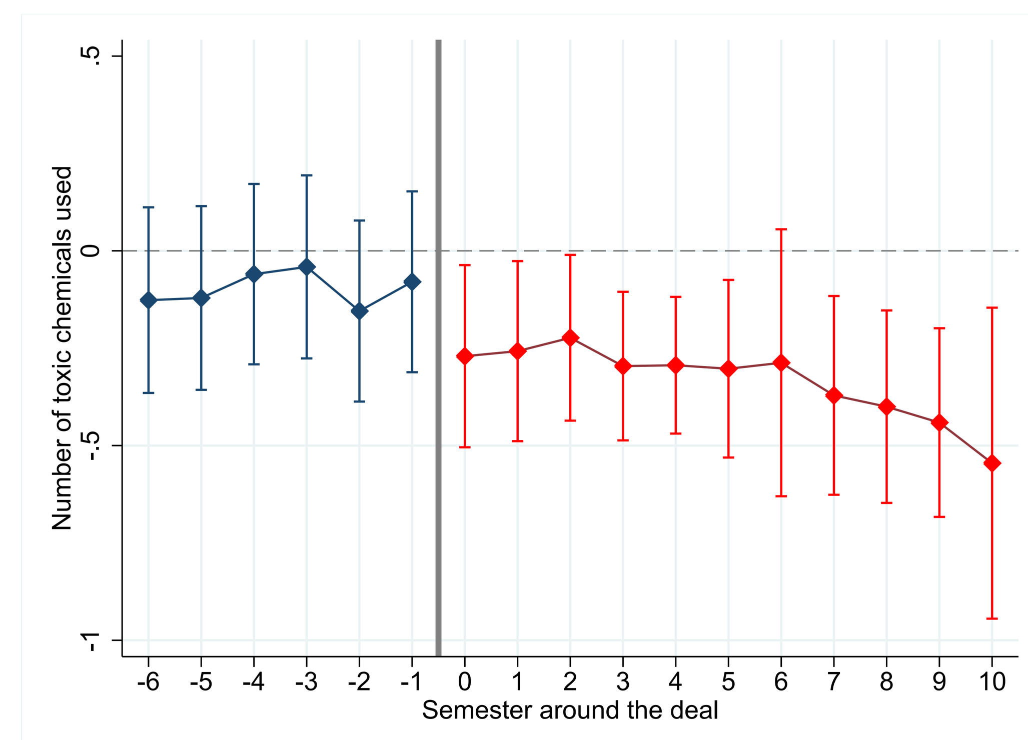
Identification

Use nearby projects as counterfactual in a difference-in-differences specification



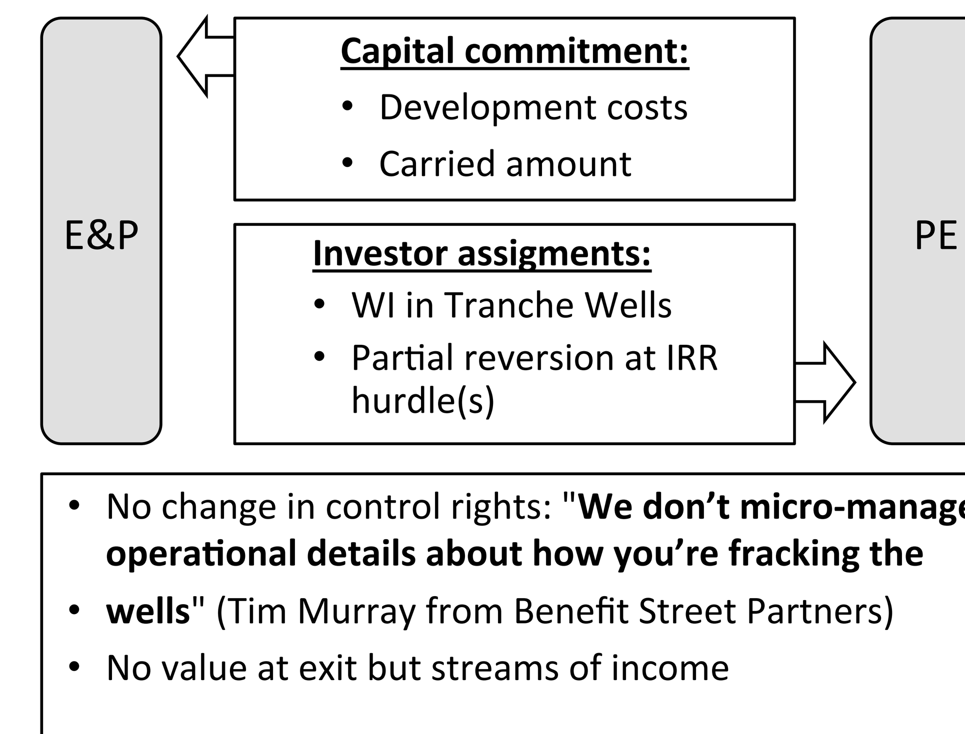
Main result

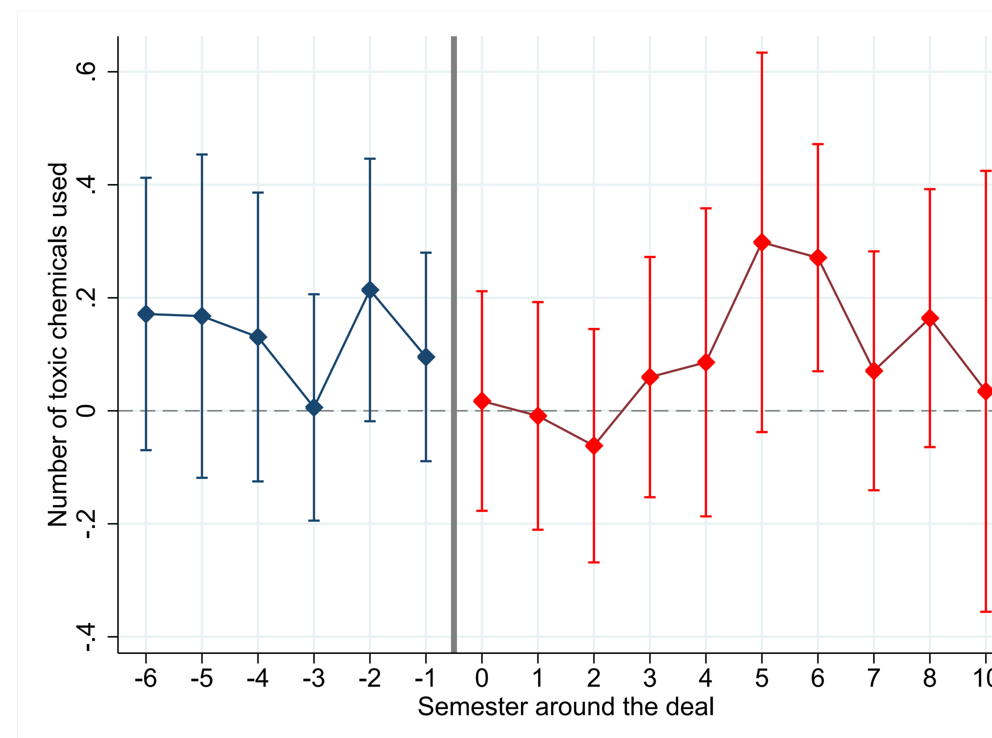
PE ownership leads to a 70% reduction in toxic chemicals



Not driven by a reduction in financial constraints

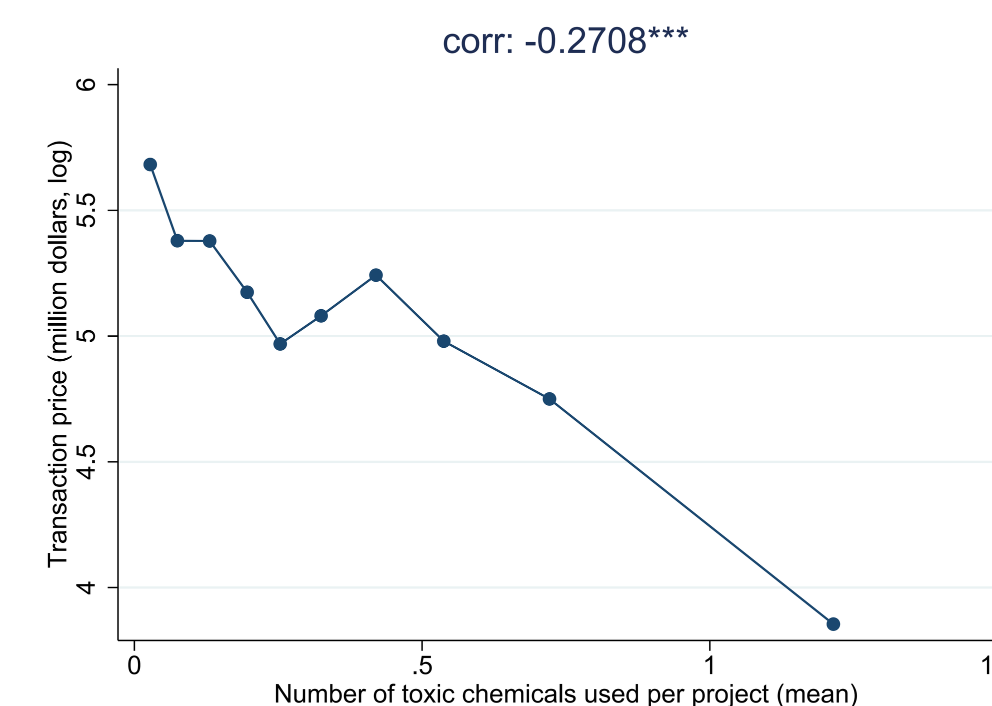
No reduction in pollution when PE firms just provide financing in a DrillCo contract





Exit pressure

Cleaner asset trade at a higher price in private transactions, which is consistent with an incentive to maximize the PE exit value

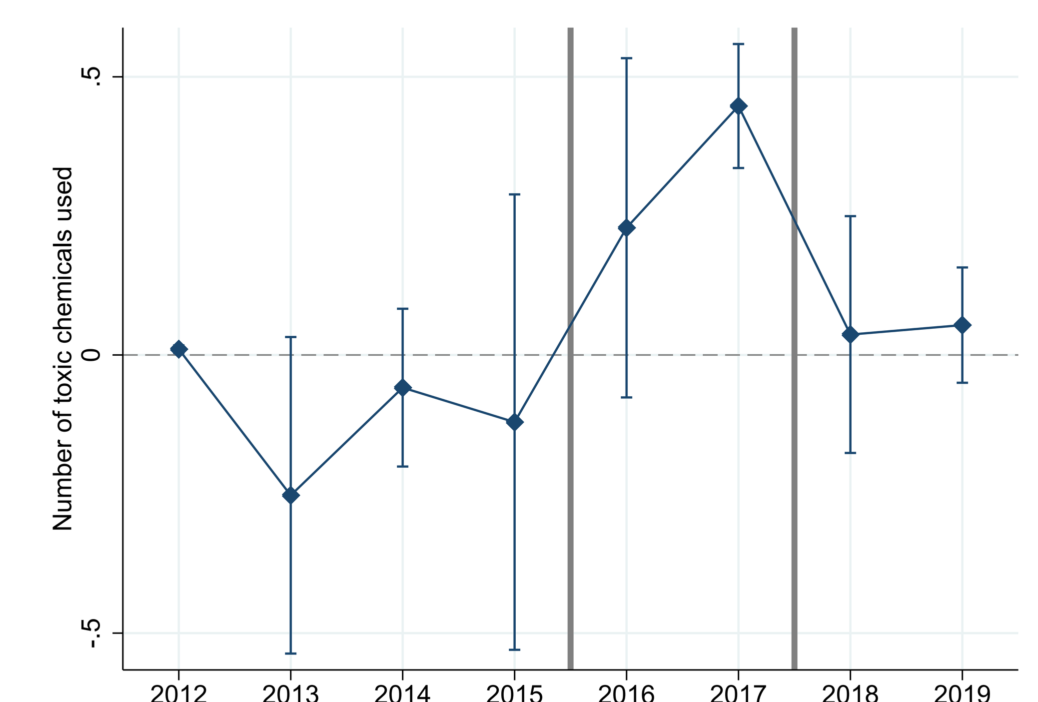


Better monitoring

PE firms better monitor their portfolio companies, which lead to less pollution when it maximizes long-term shareholder value

Test 1: Analysis of cash flow
Energy abatement projects have high payback period. Most of the cost of reducing flaring is paid at the beginning of the project but the gain in profits is diffuse in time

Test 2: Shock to regulatory risks
Between 2015 and 2018, a preliminary injunction from a Federal Court, a subsequent Court judgment and a decision in 2017 from the Trump administration blocked the ability of the Bureau of Land Management (BLM) to regulate fracking in Native American reservations and federal lands.
Reduction should be higher when long-run regulatory risks is higher
I compare differences in pollution between the regulated and unregulated areas among PE-backed firms, with a firm-year fixed effect:



Test 3: Agency frictions among public listed firms affect pollution
Increase in pollution after seven IPOs that took place between 2011 and 2019
Firms that are close to missing the mean earning forecasts of their analysts are more likely to pollute more