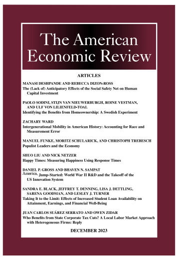

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The Effect of Uncertainty on Investment: Evidence from Texas Oil Drilling

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Article Information

Abstract

This paper estimates the response of investment to changes in uncertainty using data on oil drilling in Texas and the expected volatility of the future price of oil. Using a dynamic model of firms' investment problem, I find that: (1) the response of drilling activity to changes in price volatility has a magnitude consistent with the optimal response prescribed by theory, (2) the cost of failing to respond to volatility shocks is economically significant, and (3) implied volatility data derived from futures options prices yields a better fit to firms' investment behavior than backward-looking volatility measures such as GARCH.

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Additional Materials

Online Appendix (361.20 KB)

Replication Package (664.95 KB)

Author Disclosure Statement(s) (69.57 KB)

JEL Classification

C58 Financial Econometrics

D25 Intertemporal Firm Choice, Investment, Capacity, and Financing

G13 Contingent Pricing; Futures Pricing; option pricing

G31 Capital Budgeting; Fixed Investment and Inventory Studies; Capacity

L71 Mining, Extraction, and Refining: Hydrocarbon Fuels

Q31 Nonrenewable Resources and Conservation: Demand and Supply; Prices