A Portfolio Analysis of Alternative Energy Sources

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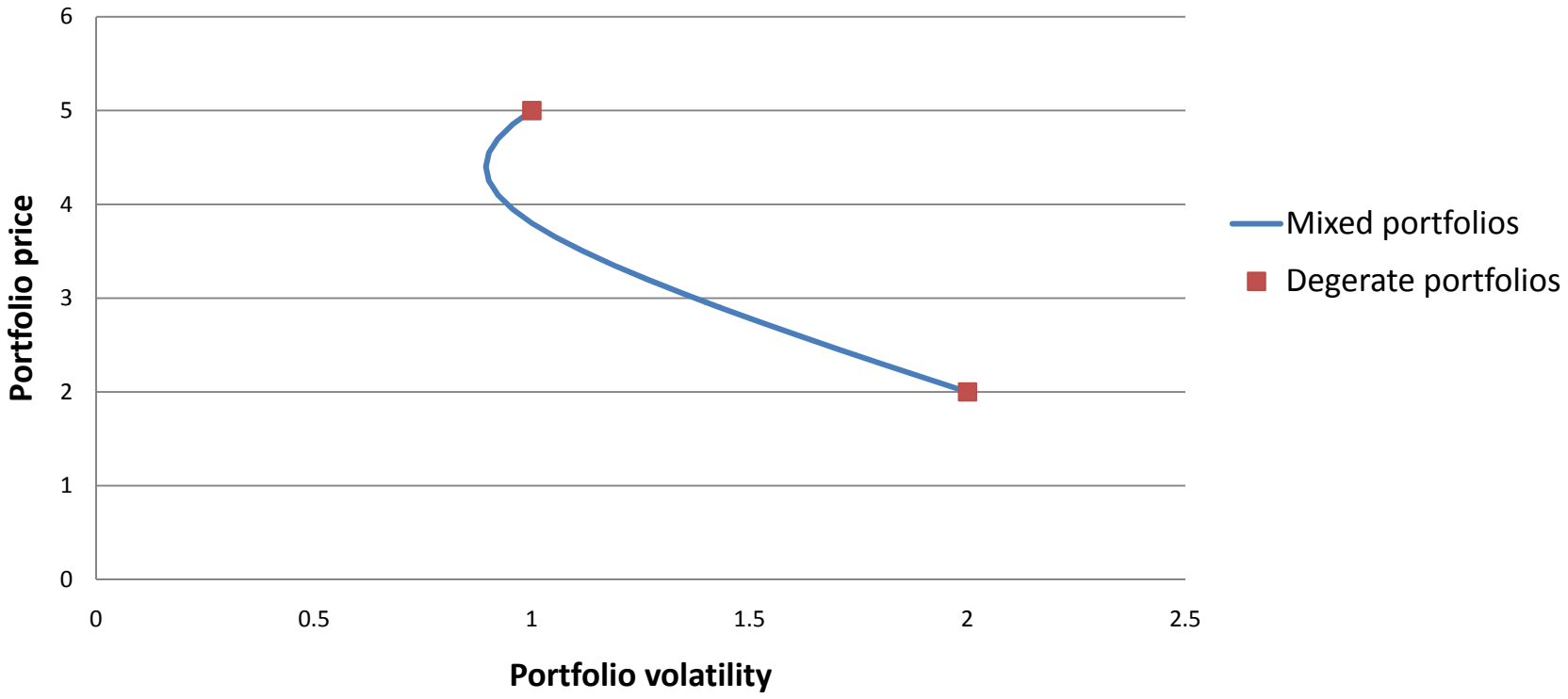
Ethanol

Simultaneous equations model

- Demand: $Q_D = Q_D(P_{gas}, P_{eth}, X_D)$
- Ethanol Supply: $Q_{eth} = Q_{eth}(P_{eth}, X_{eth})$
- Gasoline Supply: $Q_{gas} = Q_{gas}(P_{gas}, Q_{eth,} X_{gas})$

Optimal fuel portfolios



Vehicle Electrification

- This work was supported by the Climate Change Policy Partnership at Duke University.
- Exceptional research assistance was provided by Jared Dunnmon.