

# Nitrogen CGE Model

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# Motivation

## Research Question

How will changes in fertilizer production affect various sectors of the economy?

# Computational General Equilibrium Model

## Social Accounting Matrix (SAM)

- ▶ Static "snapshot" of economic structure
  - ▶ representative agents (firms, households, etc.)
  - ▶ double entry bookkeeping
- ▶ Plausible statistical basis for a model

## Elasticities

- ▶ Capture responses between different accounts of the SAM
- ▶ Production determined by CES functions
  - ▶ nested production equations ("bundles"/"baskets")
  - ▶ factors include land, labor, capital, energy, and fertilizer