Unintended and Paradoxical Aggregate Economic and Environmental Effects

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Arguably guided less by sound economic, ecological, environmental, and generational analyses than at any time during our professional careers.
The Current Policy Milieu

- Framing of policy proposals and discussion of policy alternatives increasingly dominated by
  - Ideology, often disguised behind so-called economic and scientific analyses
  - False and misleading economic (and scientific) studies
    - Dominated by economic (and scientific) hit men
    - Two recent examples (grain exports and poultry)
  - Perception managers—spinmeisters
  - Reductionism—thirty second sound bites that attempt to simplify complex issues
  - Definition of policy options by academics largely ignored
  - Objectivity of academics increasingly questioned
  - Objective economic and scientific analyses by government employees often sanitized or buried, and future analyses of certain policies squashed by threatened cuts of agency budgets
The Future

* Hopefully future policy formation and debate will be based on meaningful, objective analyses, scientific and economic

* Important considerations are understanding of
  * Paradoxical effects
  * Unintended consequences
The Macro or Aggregate World

“Everything is Connected to Everything Else”

- A fundamental ecological principle
- But also a fundamental characteristic of the aggregate economic system

Unintended Consequences

- May result from a focus on only one part of the household, critters or humans
  - some negative, some positive consequences
- May result from a focus on static, current impacts, rather than dynamic, long-run impacts
- May result from a micro policy focus when a macro focus is appropriate
**Examples of Unintended Consequences**

- **Ethanol mandates**
  - Intended to make the US less dependent on foreign oil and to have more sustainable energy production
  - Unintended consequences
    - Increased drawdown of aquifers
    - Increased erosion and sedimentation
    - Increased mining of phosphorus and potash fertilizer
    - Increased use of natural gas to manufacture nitrogen fertilizer
    - Higher food costs globally may have resulted in inadequate or less nutritious food for low income populations
    - Very small net fossil fuel equivalent energy gain
Examples of Unintended Consequences

* Pesticide Risk Assessment (under FIFRA/FQPA and ESA)
  * Intended: Preventing the “Risk Cup” from overflowing
  * Unintended: Increases in a plethora of other risks to people and to the environment, and even to endangered species (other than the one being evaluated)
The Macro or Aggregate World

- **Micro-Macro Paradoxes**
  - Tendency to reason or analyze issues at the micro level
  - But what appears true at the micro level may have the opposite macro effect
  - e.g. Introduction of a new pesticide that increases crop yield and is profitable for a farmer to use
    - But widespread adoption increases production which lowers crop price
    - In the aggregate, farmers as a group may be worse off
    - While consumers may be better off

- **Unintended and Paradoxical Consequences**
  - May apply to “expected” economic and ecological impacts
  - But also apply to “risk” considerations
Examples of Paradoxical Economic Effects

- **Boll Weevil Eradication**
  - Intended: Eliminate a serious pest of cotton
  - Unintended: Increased cotton production lowers price, and some producers make less money
    - “the boll weevil eats up the cotton crop and keeps price from falling”
Examples of Paradoxical Economic Effects

- Increased water use efficiency in the Yellowstone River basin
  - Intended: Water conservation, higher profits
  - Unintended: Upstream conservation early in the season reduced water availability downstream late in the season.
The Future

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* Quite difficult to have thorough, objective evaluation of complex consequences of public policy options with research funding piece-meal and short-term (and with the prevalence of economic hit men and perception managers at the forefront in public discourse!)
Identifying unintended and paradoxical consequences of public policy proposals is a quick “test” of tenure and academic freedom policy

Ask us how we know!!!