Agriculture Policy: What is it all about?

B. Gardner, “Changing Economic Perspectives on the Farm Problem”

Outline

• What is the farm problem?
  – Economic characteristics
  – Does it still exist?
• Consequences of inelastic demand and supply
• Factor markets and Farm Income
• Rigidities in Factor Markets
• Does a farm problem still exist?
• Stated objectives of agricultural policy
What is the Farm Problem?

• Theodore Schultz (1945) identified the farm problem with both “the low earnings of most farm people and the great instability of income from farming”
  • How would you explain the farm problem from an economic perspective?
  • Does a farm problem still exist?

• Declining commodity prices can be explained by inelastic demand and supply

• With inelastic demand and supply relatively small transitory output and demand shocks can cause substantial price fluctuations

Consequence of Inelastic Demand and Supply: Declining Real Prices

• Technological change is shifting the supply curve to the right
• Income and population growth shift demand curve to right
Consequence of Inelastic Demand and Supply: Instability

- The shocks can either be from supply or demand sides
- Supply shocks can involve a grouping of droughts across several regions

Why might Farm Income be Low?

- Do declining commodity prices imply declining farm income?
  - No empirical work establishing that commodity price trends as a cause of farm income trends
- Farm income depends on factor incomes or returns to land, labour, and capital (real assets: equipment, buildings, and other materials)
- Have to look at factor markets to determine why farm incomes may be low relative to non-farm incomes
- Models explaining factor incomes
  - Relationship between technical change and factor demand
  - Supply response of factor owners
Relationship between technological change and factor demand

\[ TFP = \frac{\text{Index of outputs}}{\text{Index of inputs}} \]

Factor Market (dis)Equilibrium

- The demand shift \( \downarrow w_{\text{farm}} \) and \( \downarrow \) labor income
- Farm wages decline relative to rest of economy
- Factor mobility means that labor should leave Ag and non-ag and Ag wages would equalize

- Why doesn’t the supply curve shift up so that factor returns become equal between farm/non-farm?
Reasons why farm factor supply will not adjust

- Two main views explain the lack of factor mobility
  - Neoclassical view is that there are short run adjustment costs (especially for labour movement). In the long run wage differences between sectors may be due to skill differences, age differences, and non-pecuniary preferences (primarily applies to labour)
  - Asset fixity and irreversibilities in agricultural investment

- Asset Fixity:
  - The farmer makes a decision to make an investment by comparing expected returns to cost of acquiring the asset
    - $VMP > AP$
  - He will continue to be committed to use the asset until the expected return falls below the salvage value
    - If $AP > VMP > SV$ resource trap
  - This is combined with a chronic decrease in demand for assets

- Once resources/assets become fixed in the industry owners will experience low earnings or capital losses
- Observe periods with commodity prices sufficiently high $VMP > AP \Rightarrow$ Investment, but the underlying tendency soon reasserts itself
- Irreversible supply in commodity markets
Reasons why farm factor supply will not adjust

- Theories of Asset Fixity and other market imperfections have grown out of vogue
  - Lack of empirical evidence supporting the theories
  - Producers/labours should be able to anticipate eventual underlying tendencies

What explains chronically low farm wages?
- Differences in skill levels
- Temporary foreign workers
- Large majority of farm operators work in non-farm employment
- The return of human capital for farmer does not show up was wage rate

Does a farm problem still exist?

- Difficulties with income comparisons
  - Farm income underreported
  - Measurement difficulties
  - Definition of farm population/Definition of farm
  - Heterogeneity different types
    - Income inequalities are larger among rural hlds.

- Farmers on average are wealthier than average on basis of net worth after assets and debt is accounted for after income calculations
- Rate of return to investment in agriculture is roughly equal to rates of return in non-agriculture investments.
  - There may be problems with measuring farm ROR because of underestimating the opportunity cost of farmer’s time
## Stated Objectives of Agri-food Policy

- Stabilize the prices of farm commodities
- Raise and Stabilize farm incomes
- Slow the migration of people from agriculture
- Ensure an adequate supply of high quality food
- Ensure the safety of the food supply
- Resource and environmental sustainability
- Preservation of the **Family Farm**
- Manage surplus production and maintain farm incomes at politically acceptable levels