Subsector Analysis and Vertical Coordination

What is a subsector?
- Shaffer: “The vertical set of activities in the production and distribution of a closely related set of commodities.”

Vertical view of industrial organization
- Catalyst: Rapid changes in vertical coordination for U.S. ag commodities

What is Subsector Organization?
- Vertical Coordination
  - The “harmonization” of the vertical economic stages of production and marketing in a subsector
- Economic Stage of Production
  - Williamson: Technologically separable production process
  - Any operating process capable of producing a saleable product or service (i.e. a value adding process)

Performance Questions
- What impact does alternative vertical organization of subsectors have on performance?
- Why one organizational form over another?
- How do changes in basic conditions lead to changes in subsector organization?
For Example.....

- Beef Subsector Organization
- 1700's
- 1900's
- Present
- Grain/cereal production
- Developed countries
- Developing countries

Why not the Spot Market?

- Biological production cycles
- Product Perishability
- Uncertainty
- Fixed investment

Subsector Performance Dimensions

- Resource Allocation
- Transaction Costs
- Dynamic Stability
- Equity
- Market and Information Accessibility

The Agri-Food System Marketing Channel

Agricultural Input Suppliers
Agricultural Producers
Assemblers
Food Processors/Manufacturers
Wholesalers
Retailers
Consumers
**Continuum of Vertical Coordination**

- **External Coordination**
  - Spot Markets
- **Internal Coordination**
  - Ownership Integration

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**Price Discovery**

- Process of finding a set of prices that clears the market at a given time
- Impacted by
  - Imperfect knowledge
  - Dynamic market
  - Choice of coordinating mechanisms
- Coordinating Mechanism
  - Set of institutions and arrangements used to accomplish harmonization of economic stages

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**Pricing Methods**

- **✓** Auctions
- **✓** Private Treaty
- **✓** Administered pricing
- **✓** Formula pricing

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**External vs. Internal Vertical Coordination**

- **✓** “Invisible hand”
  - Exchange of information or goods between adjacent Agri-Food system stages occurs outside any single firm or economic entity
  - The “cash” market (spot market)
- **✓** Exchange of information or goods between adjacent stages occurs within control of a single firm
- **✗** Ownership integration
### Coordinating Mechanisms

- ✔ Terminal markets
- ✔ Direct marketing
- ✔ Electronic markets
- ✔ Contract coordination
  - ✗ Market specification
  - ✗ Production management
  - ✗ Resource-providing
- ✔ Cooperatives, Alliances, Networks
- ✔ Integration

### Necessary Transaction Components

- ✔ Negotiating the deal
- ✔ Transfer of ownership
- ✔ Establishing a price
- ✔ Physical delivery to the buyer
- ✔ Monitoring and enforcement of contract terms

### Coordinating through “markets”....

- ✔ Terminal markets
  - ✗ Central assembly of buyers and sellers
- ✔ Direct marketing
  - ✗ Direct negotiation between buyer and seller
- ✔ Electronic markets
  - ✗ Electronic auction determines prices
  - ✗ Direct shipment from buyer to seller

### Contract Coordination

- ✔ Market Specification
  - ✗ Cattle
  - ✗ Potatoes
- ✔ Production Management
  - ✗ Organic produce
  - ✗ Premium Beef
- ✔ Resource Providing
  - ✗ Poultry
  - ✗ Hogs
Strategic Alliances

- Mutuality in......
  - Objective identification
  - Decision making processes
  - Sharing risks and benefits
- Relationship focused
- H.E.B.-Wegman’s-Meijer Alliance
  - Strong Regional Grocery Retailers
  - Why ally?

Formal Cooperation

- Presence of a formal organization that has a distinct identity from the parties involved
- Requires equity commitment
- Joint ventures, Cooperatives

Policy Issues

- Protecting attributes through the system
- Food safety
- Quality attributes
- Temporal coordination
  - Timing of supply and demand
  - Information’s role
- Thin markets
- Market power