Concentration & Integration of Markets Affecting Agriculture

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Overview

* Descriptive Summary
  * Horizontal concentration and vertical integration (supply chains) of agricultural and food markets

* Potentially Deadly Effect of Concentration and Integration
  * Are efficiency gains sufficient to offset higher profit margins associated with market power?
    * Seller Power—Monopoly & Oligopoly
    * Buyer Power—Monopsony & Oligopsony
    * Political power often accompanies economic power

* Social/Economic/Political/Sustainability Issues in the evolving food and agricultural system
Competition “Bottlenecks” in Agriculture Supply Chains

- Farmers--Producers
- Trading, Marketing, Risk Management
- Processing
- Food Manufacturing
- Food Service
- Retail Grocery
- Food Consumers

*Larger bubbles represent less concentrated segments of the supply chain*
CR4 (largest 4 firms) Concentration

- 45% food retailing (grocery stores), and increasing rapidly
- 85% cattle slaughter
- 84% hog slaughter
- 54% chicken production and processing
- 80% breakfast cereal manufacturing
- 95% cane sugar processing
- 82% beet sugar processing
- 84% wet corn milling
- 82% soybean crushing
- 73% malt manufacturing
- 75% to 95% seed and chemicals

Many ag and food markets exceed the threshold established by the Department of Justice (DOJ) and the Federal Trade Commission (FTC) at which competition concerns are “highly likely”

https://www.justice.gov/atr/herfindahl-hirschman-index
https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf

Yet DOJ and FTC continue to approve mergers and acquisitions (M&A) in highly concentrated markets
Farming and Ownership of Land is slowly becoming more concentrated, but is not highly concentrated

- Cropland held by farms with at least 2,000 acres
  - 15% in 1987
  - 36% in 2012
- Absentee ownership of farmland is growing
  - 54% of cropland rented
    - Much higher in some regions
  - 28% of pastureland rented
- Foreign ownership
  - Reported to be about 30 million acres (of about 900 million acres)
  - But hard to know & difficult to trace
- Hundred largest landowners own 27 million acres in 2017, up 50% from a decade earlier (Land Report)
- Institutional & REIT investment in farmland
  - < 1% but growing rapidly

Source: https://www.thepacker.com/article/qa-bruce-sherrick
Vertical Integration

- Vertical Control
  - by Ownership
  - by Contracting
- The integrator can be at any level of the supply chain, from farmer to consumer
  - Broilers—integrator is the processor
  - But COSTCO, a retailer, is now integrating into broiler production and processing
“Fairness” of markets is arguably tied closely to a balance of power in transactions (cash or contract).

- Important to distinguish between buyer and seller side concentration.
- Typically only seller side concentration statistics are reported.
Power Imbalance Example

* **Broiler Industry**
  * Integrator/Processor/Seller (of broilers) not highly concentrated: CR4 = 43%
  * Broiler production by “contract growers” is in small geographic regions defined by the integrator
    * CR1 = 100% in some regions (pure monopsony in contracting)
    * Integrator owns birds and feed and makes the critical production decisions
  * Due to the imbalance of power, growers contracts are non-negotiable (contracts of adhesion in legal terms)
Highly Complex Business Structure

- Corporations with wingspans or spider webs that cover vast segments of the supply chain, and many commodities
- Complex Business Organization
  - Subsidiaries
  - Subsidiaries of Subsidiaries
  - Joint Ventures
  - Strategic Alliances
  - Partial Ownership
  - Interlocking Directorates
  - Quasi-governmental companies
  - Family ownership of connected businesses
- Neoclassical, textbook economic models are inadequate for analyzing and understanding such a complex structure!
Corporate Wingspan or Spiderwebs

Seed Industry Structure
1996 - 2008
Food Industry Wingspan
Illusion of Choice

79.9% of all cereal sales are attributed to four companies:

~ Kellogg
~ General Mills
~ PepsiCo
~ Post Foods

Source: nfu.org
Illusion of Bacon Choices?

Brands are from practically the same hog and, in many regions, from the same company!
<table>
<thead>
<tr>
<th>Smithfield</th>
<th>ECKRICH</th>
<th>Nathan's Famous</th>
<th>Farmland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armour</td>
<td>Farmer John</td>
<td>Kretschmar</td>
<td>John Morrell</td>
</tr>
<tr>
<td>Cook's</td>
<td>Gwaltney</td>
<td>Carando</td>
<td>Margherita</td>
</tr>
<tr>
<td>Curly's</td>
<td>Healthy Ones</td>
<td></td>
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View some of our regional and international brands that have captured significant shares in their respective markets.
Deceptive Labeling
“Product of the U.S.A.”

- Label means ONLY that it was packaged in the U.S.
- The beef could be, and often is, from anywhere!
Misunderstood Labeling

- Some consumers think that the USDA Grade Stamp means that the meat is from the U.S.
- Not so!
Economic Issues

- Efficiency vs Power Imbalance Tradeoffs
  - With size comes market and political power
- Information & Power Asymmetry
  - Increasing control of “big data” by corporate interests
- Buyer Power > Seller Power
  - Prices (or contract terms) tend to favor the buyer
- Seller Power > Buyer Power
  - Prices (or contract terms) tend to favor the seller
- Many buyers and many sellers a condition for markets to be truly competitive
- Only a few buyers and sellers: May have a balance of power, but the outcome may not correspond to the competitive norm
- Typically contracts are not negotiated in highly concentrated ag markets, but offered on a take it or leave it basis
Antitrust

- We live in a global economy, but there is essentially no global antitrust laws or competition police.
- U.S. Antitrust Law (Sherman and Clayton Acts) emerged during the “Robber Baron” period of the late 1800s.
- Packers and Stockyards Act (PSA) of 1921 went further than Antitrust Law to establish and maintain competitive and fair markets for livestock.
- Since 1980, action under the Sherman and Clayton Acts has been weak if not nonexistent.
- PSA has been gutted by various Appellate Court Opinions.
Humorist Art Buchwald, 1977, must have seen what was coming

... (you) may not have heard about the proposed merger of Samson Securities and Delilah Company: The announcement reads “I would like to announce that Samson and Delilah (the only companies left) are now negotiating at the White House with the President of the United States to buy the United States. The Justice Department will naturally study this merger to see if it violates any of our strong antitrust laws.”

from his book Down the Seine and Up the Potomac
Conclusions from Recent Empirical Studies

IMF Working Paper by Diez, Leigh & Tambunlertchai, June 2018

- Markups (profit margins) of publicly traded global companies have increased since 1980
- Marked power and markup are highly correlated
- Higher markups correlated initially with increasing and then decreasing investment and innovation rates
- More concentrated industries have a more negative relation between markups and investment and innovation
- Association between markups and the labor share is generally negative

Conclusions from Recent Empirical Studies

Blonigen (U. of Oregon and NBER) and Pierce (Board of Governors of the Federal Reserve System), 2016.


- **Conclusions:**
  - M&As are associated with increases in markups
  - Little evidence for increases in economic efficiency of plants
  - Little evidence for reductions in administrative operations

http://www.nber.org/papers/w22750
Have U.S. Food Consumers Benefited?

- Real (inflation adjusted) Price of Food:
  - General Trends
    - Declined through the 1980s
    - Fairly flat in the 1990s
    - Increased since the 1990s
      - Particularly for food away from home
    - Mixed trends for individual food items
  - Farmer’s share of the food dollar has generally declined

- Where are the efficiency gains from horizontal consolidation and vertical integration?
Political power tends to follow economic power

- Powerful tend to change the rules of the game and enforcement in their favor
- **Agency Capture:** 57% (602 of the 1,059) agribusiness lobbyists in 2017 were "revolvers." [source: opensecrets.org]
Corporate Power

* Of the largest 100 economic entities in the world
  * 37 are governments
  * 63 are corporations
    * WalMart is #12
    * Russia is #15

Adverse Implications for Farmers

• “The deadly combination of horizontal concentration and vertical integration.” Corporations with wingspans or spider webs that cover vast segments of the supply chain
  • e.g., ConAgra, Cargill, Bayer, Tyson
• “The American farmer is caught in an economic vise.”
  • Monopoly power of input suppliers
  • Monopsony power of buyers of unprocessed agricultural commodities
• Identity Theft?
Potentially Adverse Implications for Consumers

- Predatory practices toward alternative food systems (e.g., local markets) through prices, restrictions or exclusion
- Impacts of industrial farming on the nutritional quality of food
- Exercise of political power to influence government policy in their favor (e.g., markets, food safety and labeling)
- Subtle infiltration and control over farmer organizations and cooperatives
Many ag and food markets are highly concentrated
  e.g. Seed and chemicals, beef packing, pork packing, food processing, international trade
But some markets are highly **UN**concentrated
  e.g. farming and ranching, food consumers

**Vertically:** Supply chains are increasingly integrated vertically through ownership or contracting
  e.g. Poultry, pork, some specialty crops, cattle past the farm gate

Horizontal concentration and vertical integration “may” lead to efficiencies and lower food prices
BUT may also lead to abusive market power, higher food prices, less consumer choice, and less innovation
Broad Issues in the Global Food System

- **Social:** When push comes to shove, one-sided contracts may be likened to a modern plantation system—where the farmer may be a serf, with a mortgage.
- **Economic:** The tradeoff between economies of size and potentially abusive economic power
- **Environmental:** Potential pollution and nuisances that are not internalized
- **Political:** Imbalanced influence over the rules of the marketplace, and enforcement of those rules
- **Sustainability:**
  - Industrial farming system is highly dependent on mined fertilizer and water
  - Pest resistance developing rapidly
  - Loss of prime farmland
Who should make rules & regulations regarding food and food markets?

* We the People or a Selected Few?

Are the referees—the antitrust and food safety police— independent?

Will the referees throw flags with penalties sufficient to change behavior?
Corporate apologists often hold up Adam Smith (1776) as the Patron Saint of free, unregulated markets

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but in fact, Smith emphasized advantages of competitive markets, not “free” markets

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and emphasized problem with monopolistic domination
The Problem of Monopoly

“To widen the market and to narrow the competition is always the interest of the dealers ... The proposal of any new law or regulation of commerce which comes from this order, ought always to be listened to with great precaution, and ought never to be adopted, till after having been long and carefully examined, not only with the most scrupulous, but with the most suspicious attention. It comes from an order of men, whose interest is never exactly the same with that of the public, who have generally an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it.”

Adam Smith, 1776
Questions & Rebuttal