Innovation and market power in the food supply chain

EUI/Assonime workshop, 20 September 2019

Koen Deconinck
Agricultural Policy Analyst
Agro-food Trade and Markets Division
Trade and Agriculture Directorate
OECD
koen.deconinck@oecd.org
Synergies between seed, pesticides, genetics, and digital agriculture are driving consolidation

The initial vision for Bayer-Monsanto:

Source: Bayer (2018), *Monsanto Acquisition Update – June 2018*
We know less than we would like about concentration in the food chain

Three Companies Would Sell 59% of the Globe's Seeds...

Percentage share in the global seed market if the Bayer-Monsanto and Dow-DuPont deals consummate.

- Monsanto/Bayer: 29%
- DowDuPont Agri: 21%
- Rest of Industry: 41%
- ChemChina/Syngenta: 9%

BUT:

- This refers to revenues, not volumes...
- This uses a low market size estimate
- Many farmers don’t buy seed at all (e.g. in Africa)
- GM seed is (much) more expensive, skewing the results
- This says nothing about individual markets (e.g. sugar beet in France)

We need better data!
The degree of seed market concentration varies by crop and by country…
... but markets for GM traits are much more concentrated than those for seed

Example: Share of US cotton acreage planted with GM traits
Recent findings in the academic literature on competition in ag/food

Example: Four-firm concentration ratio of US livestock slaughter

**Strong increase in concentration...**

---

**... and yet:**

“… concentration in procurement of livestock (cattle or hogs) has *not adversely affected* prices received by producers or prices paid by consumers.”

“Indeed, there is evidence that **producers may be better off** because of lower processing costs due to the concentration and introduction of new technical innovations.”

Recent findings in the academic literature on competition in ag/food

The key conclusion to be drawn is that there is little robust empirical evidence for food processing firms exerting buyer power.

Recent findings in the academic literature on competition in ag/food

Increasing Concentration in the Agricultural Supply Chain: Implications for Market Power and Sector Performance

Annual Review of Resource Economics
Vol. 10:229-251 (Volume publication date October 2018)
First published as a Review in Advance on February 28, 2018
https://doi.org/10.1146/annurev-resource-100517-023312

Richard J. Sexton¹ and Tian Xia²
¹Department of Agricultural and Resource Economics, University of California, Davis, California 95616, USA; email: rich@primal.ucdavis.edu
²Department of Agricultural Economics, Kansas State University, Manhattan, Kansas 66506, USA

“A key conclusion is that considerations that go beyond the bounds of standard models likely cause market power to be less than would be predicted based on the highly concentrated structures of many modern agricultural and food markets.”

Some situations may appear as competition problems even if they aren’t

**Example: Average costs and revenues for Dutch dairy farmers**

In EUR per kg of milk sold

![Chart](chart.png)

- **Average milk price**: Average milk price for different categories of cows.
Some situations may appear as competition problems even if they aren’t

Example: Long-term evolution of real agricultural commodity prices
Conclusion

• We know much less than we would like about competition and market power in the food chain
• Paradox: Evidence for increasing concentration, but not for increased (use of) buyer power
• However, there is likely a lot of heterogeneity across regions and sectors
• The perception of competition problems could be due to other structural challenges facing agriculture
• In other words, we need to tread carefully and avoid jumping to conclusions
Thank you!


Koen Deconinck
OECD Trade and Agriculture Directorate
koen.deconinck@oecd.org