



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

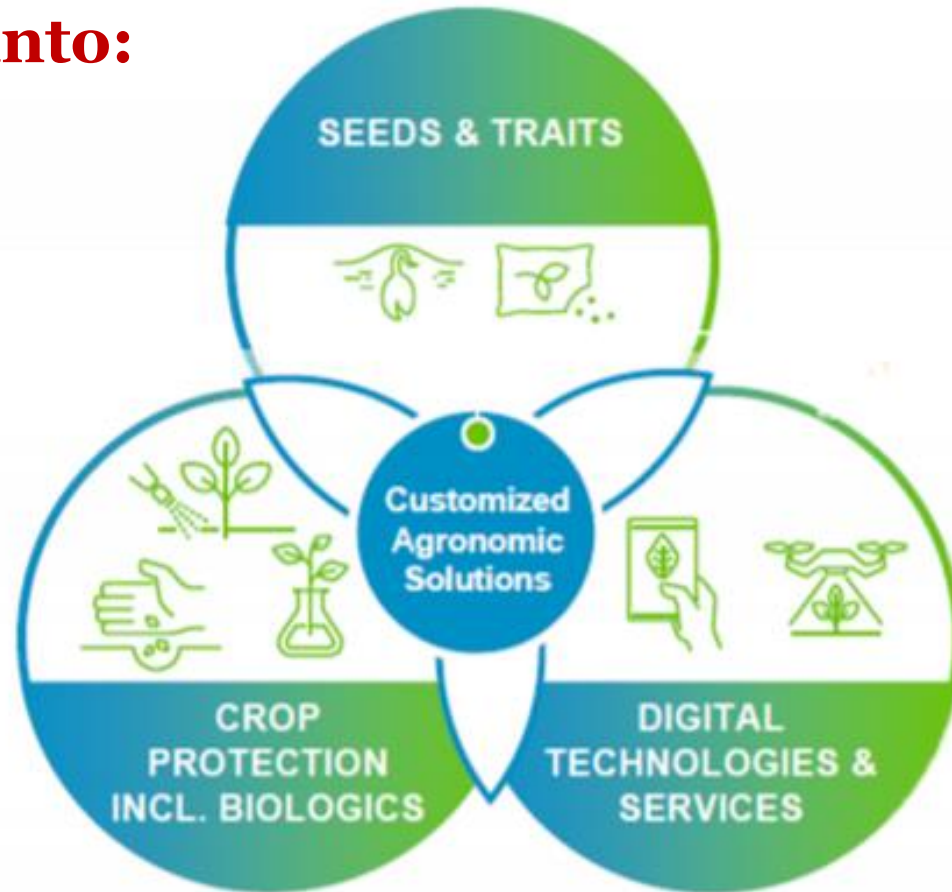
OECD

koen.deconinck@oecd.org



Synergies between seed, pesticides, genetics, and digital agriculture are driving consolidation

The initial vision for Bayer-Monsanto:



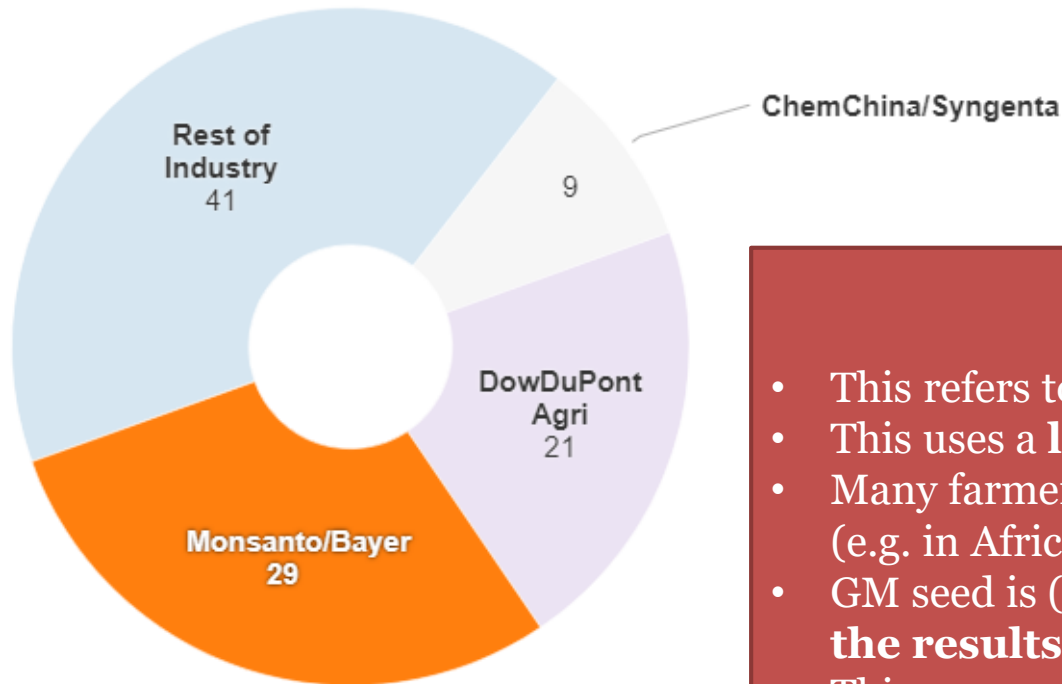
Source: Bayer (2018), *Monsanto Acquisition Update – June 2018*



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.



Source: ETC Group [Get the data](#)

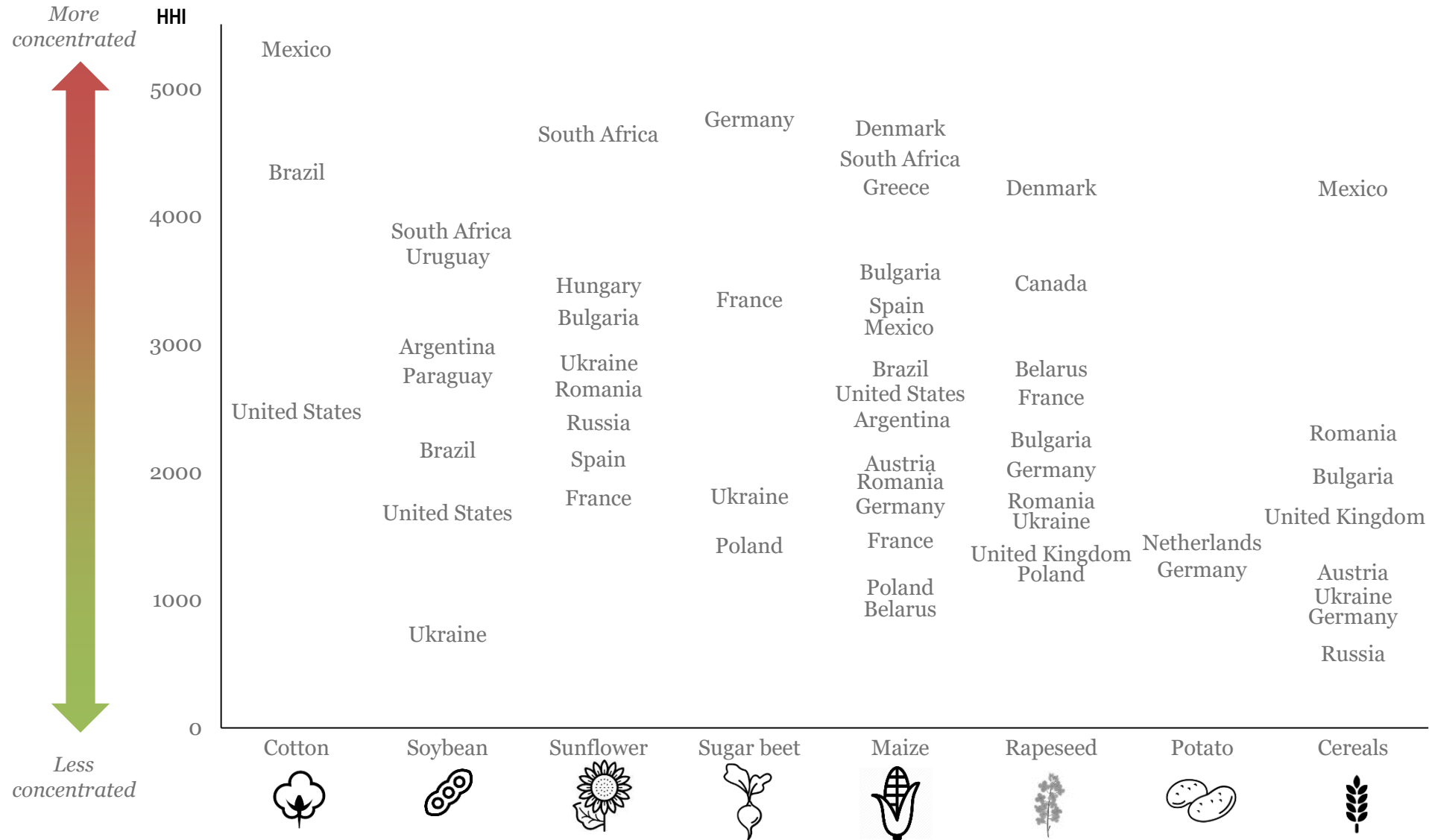
BUT:

- 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!



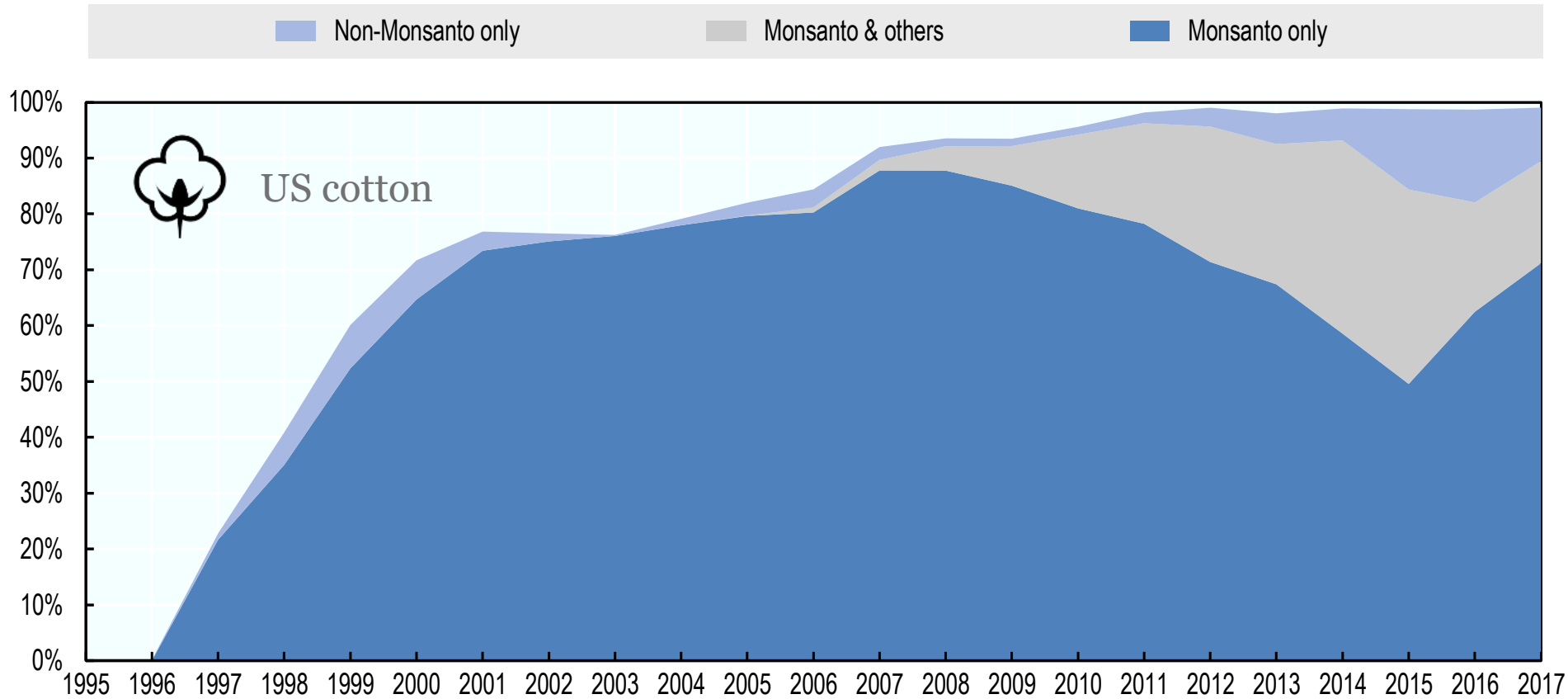
The degree of seed market concentration varies by crop and by country...





... but markets for GM traits are much more concentrated than those for seed

Example: Share of US cotton acreage planted with GM traits



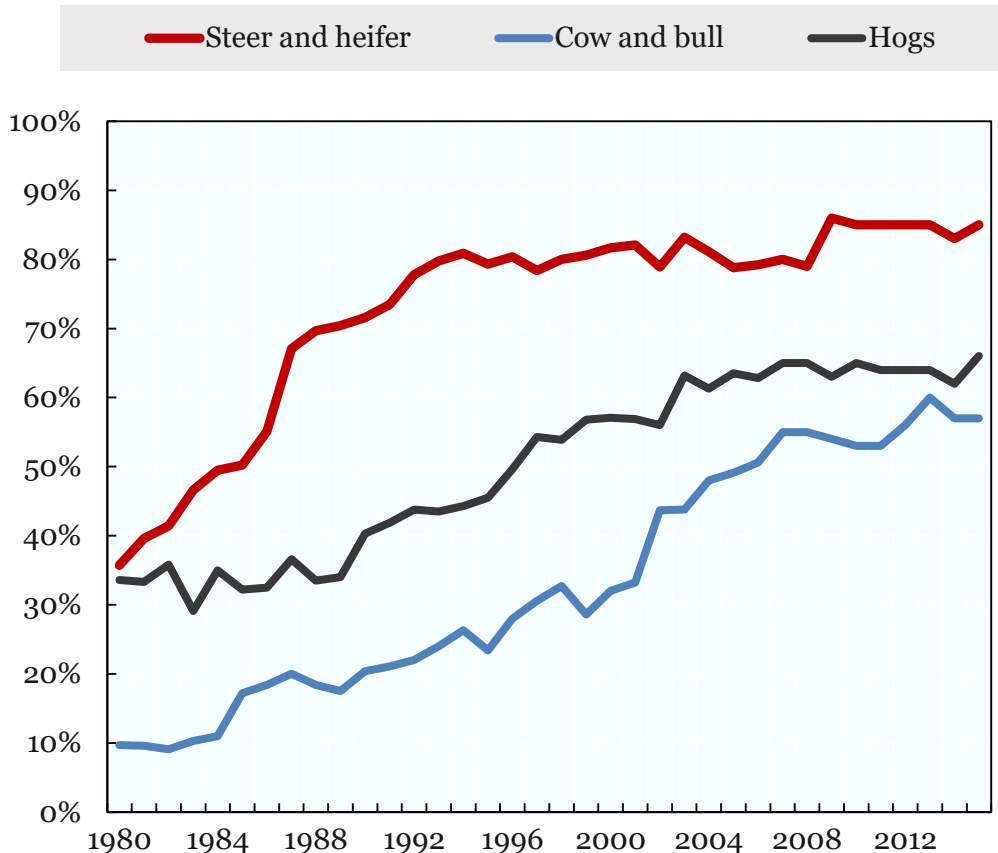


Recent findings in the academic literature on competition in ag/food

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.”

Wohlgenant, M. (2013) “Competition in the US Meatpacking Industry”, Annual Review of Resource Economics 5:1, 1-12



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

The Routledge Handbook of Agricultural Economics

Chapter 4

Industrial organization of the food industry

The role of buyer power

By Ian Sheldon

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

Sheldon, I. (2018) “Industrial organization of the food industry,” in: The Routledge Handbook of Agricultural Economics, edited by G. Cramer, K. Paudel and A. Schmitz

Also see: Sheldon, I. (2017) “The competitiveness of agricultural product and input markets: A review and synthesis of recent research,” *Journal of Agricultural and Applied Economics* 49(1), 1-44



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.**”

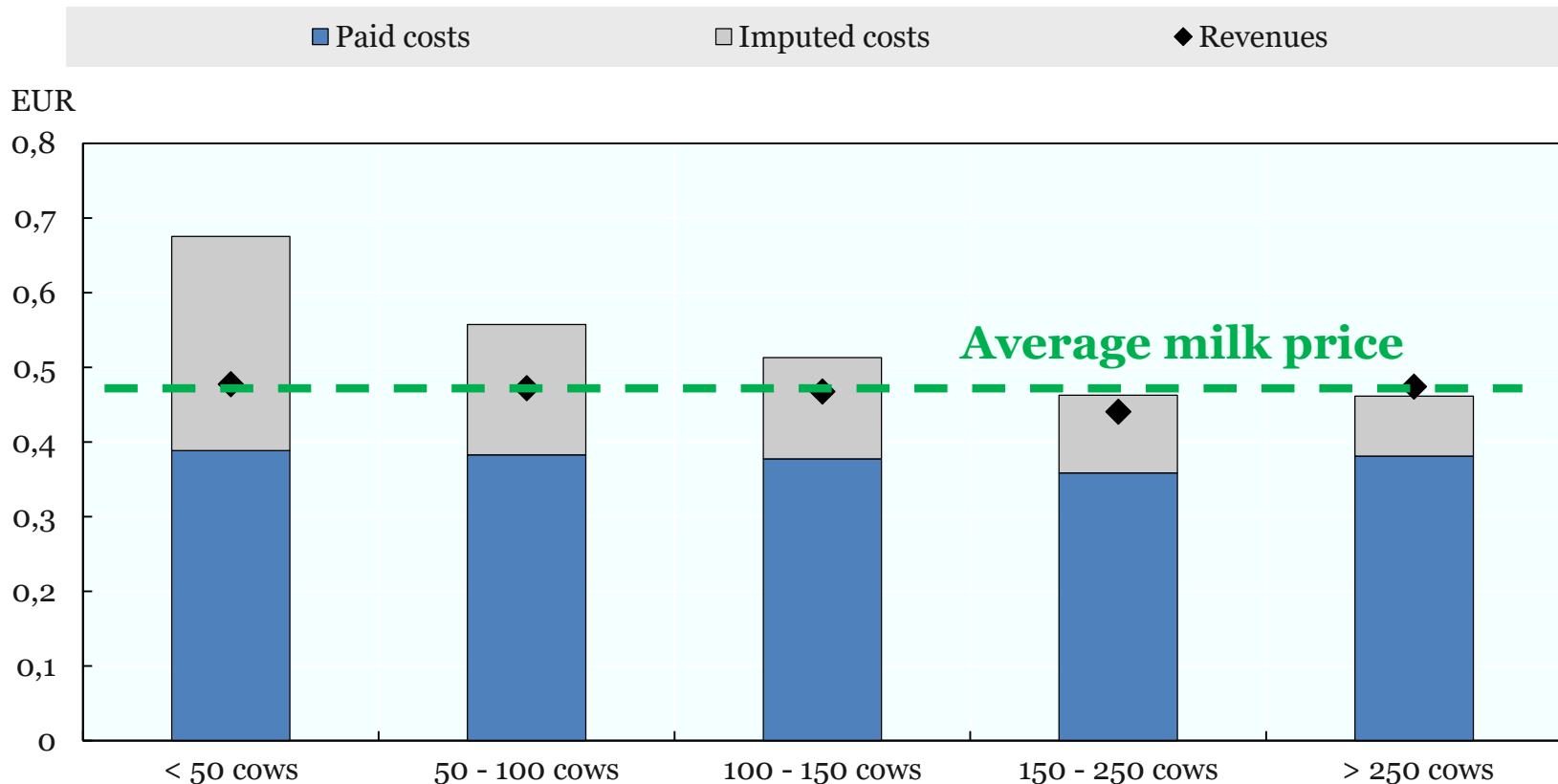
Sexton, R. and T. Xia (2018) “Increasing concentration in the agricultural supply chain: implications for market power and sector performance,” Annual Review of Resource Economics 10:1, 229-251



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

Example: Average costs and revenues for Dutch dairy farmers

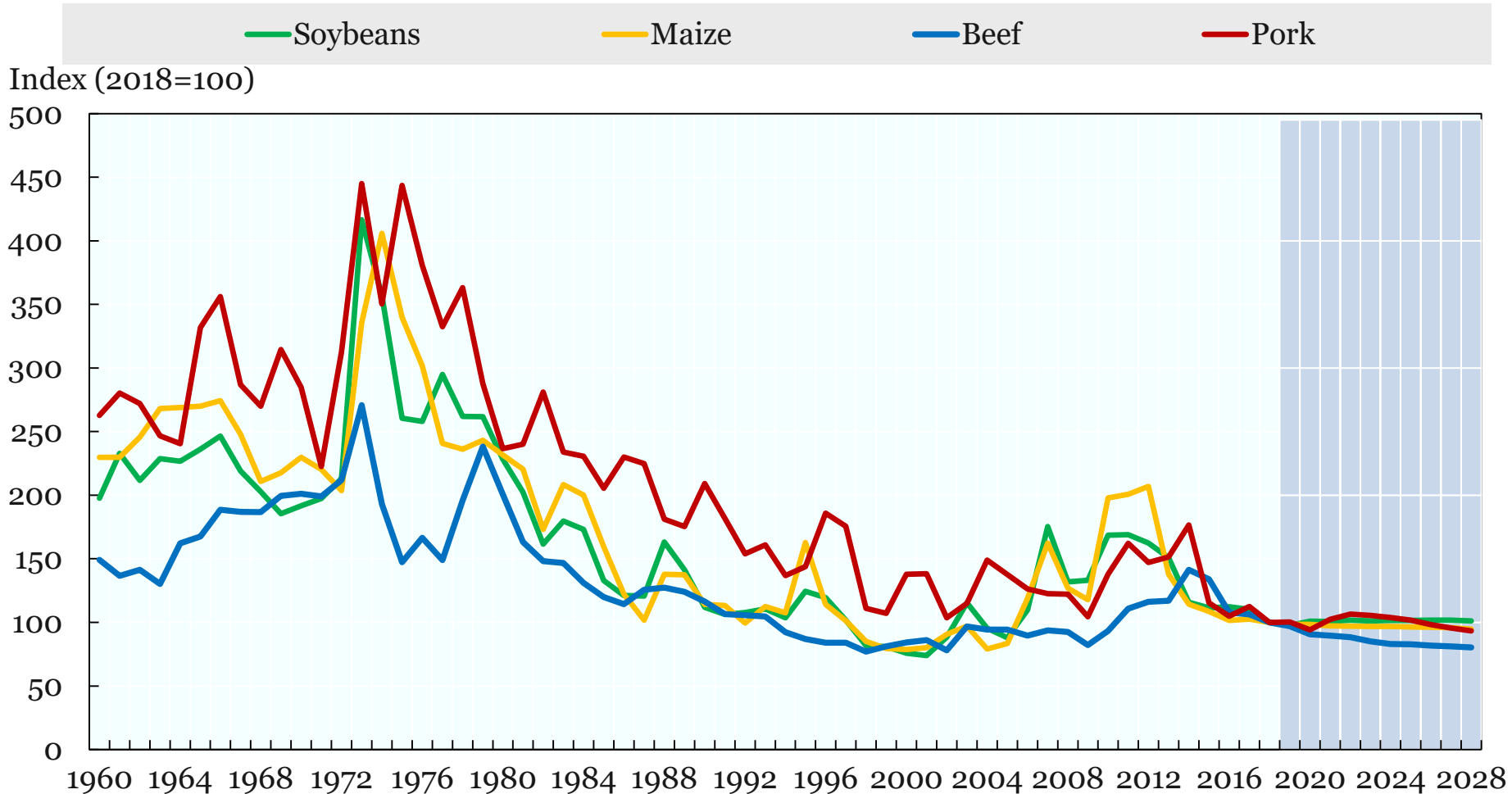
In EUR per kg of milk sold





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!

- OECD (2018) *Concentration in Seed Markets: Potential Effects and Policy Responses*, Paris: OECD Publishing
- Deconinck, K. (2019) “New evidence on concentration in seed markets,” *Global Food Security* 23, pp. 135-138.

Koen Deconinck

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



Concentration in Seed Markets

POTENTIAL EFFECTS AND POLICY RESPONSES

