### 9th United Nations Conference on Competition and Consumer Protection Room XIX, Palais des Nations Geneva 7-11 July 2025

#### Competition law and policy and global food value chains

Presentation

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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

9<sup>th</sup> United Nations Conference on Competition and Consumer Protection 7 – 11 July, 2025

### **Competition law and policy and global food value chains**

Agricultural Commodities Section Division on International Trade and Commodities





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# Increases in Concentration

- Concentration in different segments of the food value chains is very high around the world.
- This notably includes upstream segments like fertilisers, seeds and agrochemicals, which are essential for modern agriculture
- This high concentration results from both organic growth and intense sectoral merger activity in recent years.
- Trade plays a key role for these inputs, as production and export of many of them are geographically concentrated.
- Concentration in fertilizer Q and X linked to resource location.
- For seeds and agrochemicals, there are links between GM traits (herbicide and insect resistance) and the development of agrochemicals, with large investments in R & D by firms.

### **Top 4 Fertilizer Export Countries (% of World Volume) - 2021**





Data source: FAOSTAT

### **Top 4 Fertilizer Export Countries (% of World Value) - 2023**

USA NPK CHN - 16.2 RUS - 17 MAR - 14.5 ROW - 43 9.3 BLR DEU Κ CAN - 41.8 RUS - 17.4 ROW - 23.8 9.1 7.9 Ρ CHN - 22.5 EGY - 18.9 MAR - 16.1 ISR - 15.7 ROW - 26.8 OMN EGY CHN - 11.5 RUS - 12.7 Ν ROW - 62.7 6 7.2 Т Т Т Т 0 20 40 60 80 100 Data source: UN COMTRADE

UN trade &

Crop R&D spending and sales of the top 7 seed and agrichemical companies, 1990–2021







Note: The chart shows data from the world's seven largest seed companies (Bayer, Corteva, Syngenta, BASF, Limagrain, KWS, and Rijk Zwaan), as well as 25 legacy companies that have merged with or been acquired by these firms since 1990. **R&D spending** reflects the research and development (R&D) of the firms' agricultural business segments. **Sales revenue** includes sales of seed, agrichemicals, and other crop improvement products and services.

Source: USDA, Economic Research Service using data from company financial reports.

Source: USDA (2023), "Crop research and development spending tracks sales revenue by major seed companies", available at Crop research and development spending tracks sales revenue by major seed companies Economic Research Service

# > Why is Concentration Important?



- Geographic concentration makes importers vulnerable to trade disruptions, such as those caused by conflicts or logistic issues.
- Concentration can facilitate coordination among incumbents.
- In several cases, this combines with significant barriers to entry due to high, upfront and sunk fixed costs (e.g. from R & D and from IP granted to GM plant traits, from mines and processing facilities for fertilizers), as well as with indivisibilities that give rise to (static) economies of scale.
- For seeds and agrochemicals, where innovation is important, an additional concern are the potential effects on innovation.
- Recent research looks at the effects of market power on the resilience of food markets to negative shocks. Some studies show that market power magnifies the negative effects of the latter.



- Fertiliser imports in Developing Countries
- Real fertiliser prices
- Fertiliser affordability vis a vis crops

### Potassium Fertilizer Imports in 2023





Data source: UN COMTRADE



Data source: UN COMTRADE

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### Fertilizer Real Prices 1985 - 2025 (Index 2010=100)





### Fertilizer cost index for selected regions and commodities



2019 yearly average = 100



Source: AMIS

#### Fertilizer crop price ratio for selected regions and commodities



2019 yearly average = 100



# Current challenges for policymakers



- There is no substitute for data obtention and analysis at the national (and subnational level) for food input value chains for CP purposes.
- > The logistics dimension is key for importing developing countries.
- In some developing countries, the informal sector plays a key role in the provision of agricultural inputs, including through inter-linked transactions (e.g. seeds to maize farmers in Lao PDR. UNCTAD 2020)
- Addressing market failures that give rise to this requires a joint public and private effort to develop sustainable agricultural value chains.
- Mergers among seed and agrochemical producers are driven by asset complementarities and economies of scale that are often of a global scale, going beyond national or regional mandates on Competition.

# **Emerging** issues for policymakers



- Digital agriculture has a massive yield and sustainability potential.
- But there are multiple potential CP issues about interoperability of networks, ownership of data, tying of data services, physical inputs and capital equipment, two-sided markets (e.g. vendors and clients).
- E.g. competition in capital equipment aftermarkets (e.g. repair) can be affected by the tying in digital agriculture packages (foreclosure risk).
- Issues with regulation of digital agriculture platforms mirror issues in digital platforms in general, such as interoperability, data ownership allowed/forbidden practices, regulator policy towards the acquisition of small innovative firms by large incumbents, etc.
- Also, adaptation to climate change, for example via the adoption of new varieties can boost yields and resilience, but often at the cost of increased proprietary seed and high input use (e.g. fertilizer).

# Moving Forward – CP and Agriculture



- Strengthen the technical capacity of CAs, especially in developing countries, especially on data gathering and analysis.
- More international cooperation and information exchange are needed. Especially important for VCs with high concentration, where enforcement against cartels and coordinated behaviour as well as merger control are key.
- CP important for trade in food and inputs, especially in a context of policy changes and periodic supply-side disruptions.
- CP particularly important for boosting resilience to exogenous negative shocks (e.g. conflict, logistics) in developing countries.
- The increase in importance of digital agriculture will require more cooperation on digital standard-setting (e.g. interoperability) and cross-country learning among CP practitioners.

# Thank you!

