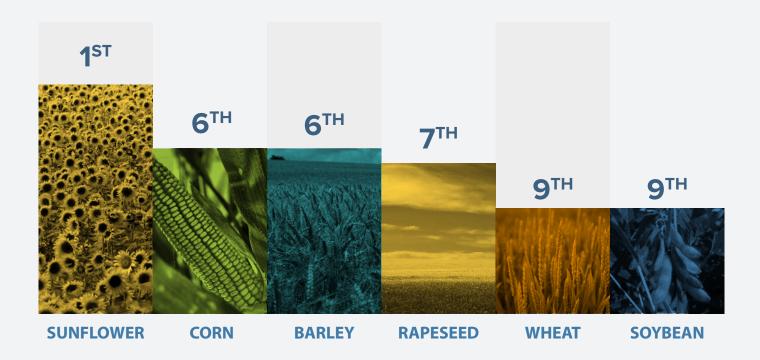
THE WAR IN UKRAINE



IMPLICATIONS FOR FOOD AND AGRICULTURE INVESTORS

Ukraine is a key player in global agriculture, with significant production of a wide range of cereals and oilseeds.

UKRAINE'S RANKING IN GLOBAL PRODUCTION BY CROP



THE WAR IN UKRAINE HAS EXACERBATED THE DISRUPTIONS IN THE GLOBAL FOOD AND AGRICULTURE INDUSTRY...

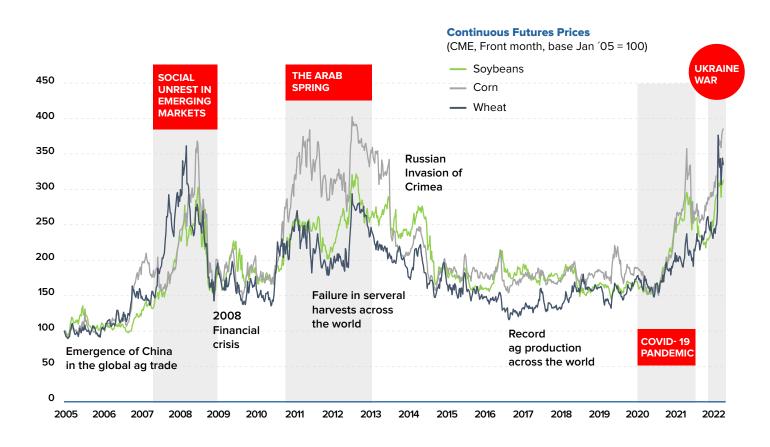
While the war in Ukraine is ongoing and its outcome is yet unclear, the impact to the food and agriculture sector is already of an unprecedented scale, both in terms of the impact on the country and on global food security.

	IMMEDIATE EFFECTS	MEDIUM- AND LONG-TERM IMPLICATIONS
PRODUCTION	 Lower production of key cereals and oilseeds in Ukraine. Lower global projected stocks caused by lower production. 	 Possible increased acreage around the world in response to higher crop prices. Expected shift in crop planting according to profitability expectations. Farm-level profitability will also depend on input costs.
AG INPUTS	 Higher fuel costs impacting field tasks and transportation. Higher fertilizer costs driven by surge in hydrocarbon prices and restrictions on Russia and Belarus' fertilizer exports. Higher animal feed costs. Higher packaging costs. 	 Replacement of hydrocarbon-based inputs likely to gain further momentum, as the industry moves to become less dependent on fossil fuels and petrochemical-based inputs. AgTech innovation expected to achieve wider adoption.
GLOBAL TRADE	 Severe supply chain disruptions as global trade is redirected from the war zone to other suppliers. Higher crop prices and extreme volatility resulting from lower production, higher input costs and continued disruptions. 	 Food importing countries likely to change preferred trading partners. Re-onshoring will be a growing topic, whenever feasible. The war will trigger new infrastructure investments along the food and ag supply chain to build resilience (from "just in time" to "just in case").
DEMAND	 Initial signs of demand rationing across the world. Product substitution as companies and consumers adapt to higher food and agriculture commodity prices. 	There may be some long-lasting substitution effects, particularly in oilseeds as well as in animal feed.
PUBLIC POLICY	 Sanctions on Russian and Belarus fertilizer exports affecting global supply of potash and nitrogen fertilizers. Trade restrictions are emerging as a way to protect local supplies. Changes in taxes to reduce the burden on food expenses. 	 The food security mandate is back in the global agenda. Likely to see emergence of local production incentives. More financing will be required. The trade off between food security and sustainability will be another discussion among policy makers and the industry. Eventually, reforms on subsidies may be discussed.



...CAUSING MAINSTREAM CROPS TO REACH MULTI-YEAR RECORD PRICES...

Futures prices of mainstream crops and major geopolitical events along time.



Source: CME and Valoral Advisors.

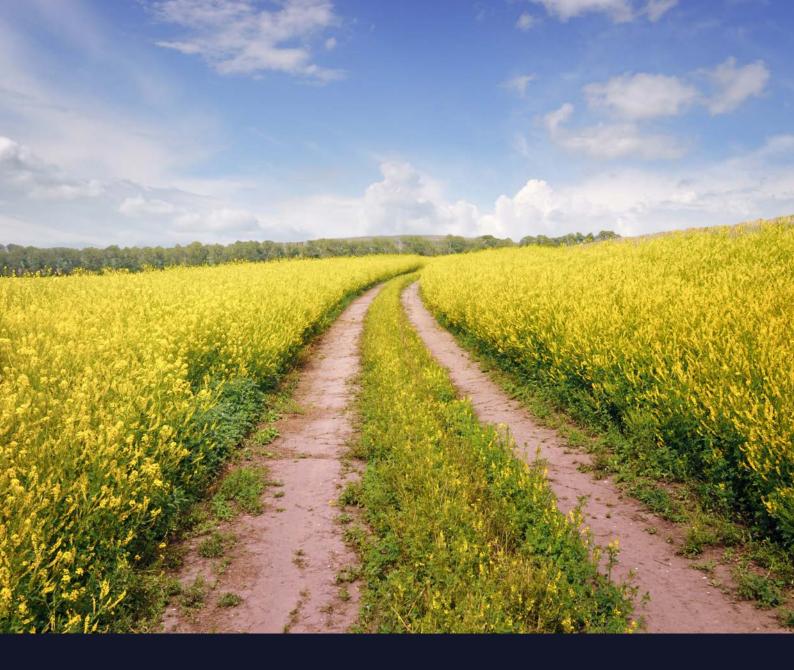
..AND BRINGING LONG-**LASTING IMPLICATIONS** TO THE FOOD AND **AGRICULTURE SECTOR**

IMMEDIATE EFFECTS

MEDIUM- AND LONG-TERM IMPLICATIONS

- Increased farmland prices across the world as farm income benefits from higher crop prices and as investors are attracted to agriculture real assets.
- The renewed interest in food and agriculture real assets and infrastructure assets is likely to go on as the sector remains underinvested relatively to other global economic sectors.
- Agriculture trade finance may face more challenges with higher interest rates, higher and more volatile commodity prices and continued supply chain disruptions.
- Amid heightened geopolitical uncertainty, investors are likely to refocus on regions which are away from the main conflict zones and which look more resilient in the current context.
 - North America and Latin America look particularly well positioned.
- · Profitability along the food value chain depends on input-product price relations.
- · Record prices due to the war shock will eventually come down once supply and demand normalize, as seen in previous geopolitical and/or weather-induced shocks.
- Immediate focus on food security vs. sustainability.
- Technological innovation is a key driver to make the food and agriculture production system more efficient and more sustainable and we expect a continued wave of investments across the AgriFoodTech sector.





Valoral Advisors is an internationally recognized advisory Firm specialized in the global food and agriculture investment space. We work with fund managers, private and institutional investors, and business owners to help them invest profitably whilst fostering a better agriculture – more productive, more efficient, and more sustainable.

To learn more about what we can do for you, please contact us.

