What factors are driving the current grain market volatility?

July 18, 2023

Seungki Lee, Assistant Professor Agricultural, Environmental, and Development Economics, The Ohio State University

During the last few weeks, grain futures markets have showed significant swings in response to several events: the expanding drought, USDA's June Acreage Report, and the looming Black Sea Grain deal. The heightened uncertainty in the commodity market is causing concern among US growers about market prospects. Given the current influence of multiple variables on prices, relying solely on price indices may lead to a misinterpretation of the market outlook. Therefore, in this article, we will look into three primary factors individually that have the potential to impact the market in the upcoming months.

1. Expanding Drought Conditions and USDA's July WASDE Report

The first and very perceivable force that raises uncertainty is the domestic growing condition – the expanding drought in the Midwest. A striking example is that 98% of Minnesota's crop land are currently experiencing drought (Brown, 2023). USDA's July WASDE report adjusted down corn yield to 177.5 bushels per acre, 4 bushels down from last month, whereas soybean yield forecast was not changed. However, a substantial change in the acreage projection (corn up and soybean down) in the June USDA's Acreage Report mainly determined the overall production estimates. This indicates that the market has not fully accounted for the potential yield reduction caused by the drought. Despite the undeniable impact of the drought, the exact extent of harvest reduction remains uncertain, further contributing to market unpredictability. Even though commodity prices hold steady, growers can be largely worse off (Probert et al., 2023). **Table 1** provides a quick summary of July WASDE updates for new crop corn, soybean, and wheat.

Table 1. Summary of July WASDE Estimates

		Corn			Soybean			Wheat	
Marketing Year	23/24F	ΔJun	Δ22/23	23/24F	ΔJun	Δ22/23	23/24F	ΔJun	Δ22/23
Yield (bu/acre)	177.5	-4.0	+4.1	52.0	**	+2.5	46.1	+1.2	-0.4
Production	15,320	+55	+1,590	4,300	-210	+24	1,739	+74	89
Total Supply	16,747	+5	+1,615	4,575	-185	0	2,449	+51	-21
Feed & Residual	5,650		+225						
Ethanol	5,300		+75						
Crush				2,300	-10	+80			
Domestic Use	12,385		+305	2,426	-10	+85	1,132	+20	+1
Exports	2,100		+450	1,850	-125	-130	725		-34
Total Use	14,485		+755	4,276	-135	-45	1,857	+20	-33
Ending Stocks	2,262	+5	+860	300	-50	+44	592	+31	+12
Price (\$/bu)	4.80		-1.80	12.40	+0.30	-1.80	7.50	-0.20	+1.33

Note: The default unit is a million bushels if not specified.

2. An Official Termination of Black Sea Grain Deal

On July 17, Kremlin spokesman Dmitry Peskov announced that Russia is pulling out of the Black Sea Grain Deal agreement, yet leaving the door open for resuming the deal if Russia's demands were fulfilled. Since the agreement was established in July last year, this is the first time that we have seen an official stop of the deal. As we have witnessed the international connectivity in the commodity market, what's happening in Black Sea will likely fluctuate US grain markets.

Due to the war situation and Russia's political instability, the new deal is likely to fall into a labyrinth. Even putting the recent political turmoil in Russia aside, both sides have been complaining about the deal for months. Russia claimed that its own agricultural products and fertilizers also should be allowed to be shipped to the global market through the Black Seas (i.e., lifting the sanction on Russian crops). Ukraine claimed that Russia is using the inspection for sabotage (Malsin, 2023). The current situation is a sort of "Chicken Games," because the negotiation time will be costly to both countries. The Black Sea Grain Initiative can possibly resume in months, but, Ukraine has already been attempting to mitigate risks by exploring alternative export channels. This development has created political tensions within the European Union, resulting in a temporary ban on grain imports from Ukraine (Sheldon and Zoller, 2023). All of these factors contribute to increased market uncertainty. As illustrated in Figure 1, China and EU countries have been major recipients of Ukraine crops through the Black Sea. The partnership and friendship of these countries will potentially play a key role in reviving the Black Sea Corridor.

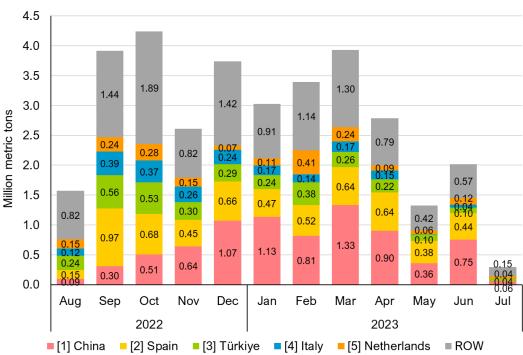


Figure 1. Black Sea Grain Initiative exports to Top 5 partners and ROW

Note: the numbers in brackets indicate the rank of each country based on the total crop delivered. Source: United Nations, as of July 17, 2023

3. El Niño and Uneven Impacts Worldwide

El Niño is having an increasingly pronounced influence on global crop production (Witze, 2023), and this impact is being actively reflected in commodity markets (Currie, 2023). It is noteworthy that the effects of El Niño are expected to vary significantly across different regions. For example, Australia is currently experiencing drier weather patterns attributed to El Niño, leading to anticipated reductions in wheat production (Jackson, 2023). On the other hand, Argentina is likely to benefit from El Niño as it brings increased rainfall, replenishing soil moisture during the current growing season. This divergence in the impact of El Niño on crop production among countries will further contribute to market fluctuations. Over the past three years, Latin American countries have suffered from agricultural production setbacks caused by La Niña-induced droughts. This suggests that the transition to El Niño conditions can work favorably for countries such as Brazil and Argentina, posing an additional challenge to US exports in the future.

References

- Brown, K. (2023, July 13). *All of Minnesota now in some stage of drought*. KSTP.com 5 Eyewitness News. https://kstp.com/kstp-news/top-news/all-of-minnesota-now-in-some-stage-of-drought/
- Currie, A. (2023, July 3). *Breakingviews: El Nino will brew up potent new economic storm*. REUTERS. https://www.reuters.com/breakingviews/el-nino-will-brew-up-potent-new-economic-storm-2023-07-04/
- Jackson, L. (2023, July 5). *El Nino threshold not yet passed, Australia weather bureau says.* REUTERS. https://www.reuters.com/business/environment/el-nino-threshold-not-yet-passed-australia-weather-bureau-2023-07-05/
- Malsin, J. (2023, July 17). *Russia Says It Is Pulling Out of Ukraine Grain Deal*. The Wall Street Journal. https://www.wsj.com/articles/russia-says-it-is-pulling-out-of-ukraine-grain-deal-68190d1
- Probert, A., McCorvey, J.J., and Bush, E. (2023, July 13). *Drought and extreme heat burn through farmers'* margin for error and it's only July. NBC News. https://www.nbcnews.com/business/drought-extreme-heat-burn-farmers-margin-error-only-july-rcna93862
- Sheldon, I. and Zoller, C. (2023, July 18). What are the Implications of the Black Sea Grain Deal Breaking Down?. Ohio Ag Manager.
- Witze, A. (2023, June 29). El Niño is here-how bad will it be?. *Nature*. https://www.nature.com/articles/d41586-023-02122-6