

MARZO 2022**The Russian invasion to Ukraine:
An agribusiness perspective***Hugo Krajnc**

It is quite relevant that the arguments used to justify the Russian invasion to Ukraine do not highlight economic components. Although it may be difficult to assert that such decision was also driven by economic issues, it is quite hard as well to deny that those were not involved, given the traditional Russian geopolitical perspective.

Nevertheless, and given the lack of precise information, it may be useful to theorize what would imply for the Russian Federation and from an economic perspective, to achieve a control over Ukraine, either directly or indirectly through an ally government (such as in Belarus and Kazakhstan) or economically as in Moldova. Additionally, what would that imply for Argentina.

Both questions open a set of multiple answers, depending on the industry or sector involved. However, I have preferred to focus my comments exclusively in agribusiness resources, both “assets” and “flows”, and particularly in three commodities which are key for Russia, Ukraine and Argentina: Wheat, Corn and Sunflower Oil.

- Related to which resources, as “assets” could Russia access to, in case of a direct or indirect control over Ukraine, I consider upon the arguments developed below, that such control would allow Russia to take advantage of two critical Ukrainian “assets”: the “Black Earths” plus Wheat, Corn and

* Member of Eurasian Contemporary Studies Working Group.

Algunas expresiones pueden resultar extrañas desde la perspectiva de un inglés más académico: en la jerga del sector, la expresión “agroindustria” se traduce como “agribusiness”, la molienda de oleaginosos como “oilseeds crushing” y la molienda de cereales como “grain milling”.

CONSEJO ARGENTINO
PARA LAS
RELACIONES
INTERNACIONALES

Uruguay 1037, piso 1°
C1016ACA
Buenos Aires
República Argentina

Tel. +5411 4811 0071
Fax +5411 4815 4742

cari@cari.org.ar
cari.org.ar

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Sunflowerseed productions, the latter not only due to their acreage but to their yields, quite above the Russian ones.

- Equally important, such control would provide Russia a critical leverage on something as worth as those “assets” which are the Ukrainian export flows of those commodities. Their relevance is not only due to their amount, almost US\$ 13 billion as average for 2019-2020, but also for their geopolitical significance, given the four major customers of these Ukrainian export flows: Egypt, Turkey, Iran and Iraq.
- Related to the impact for Argentine export flows of such commodities, both in volume and amount, there is some optimism (unfortunately based on other countries’ disgrace). However, their impact on our trade balance should not be accounted just as an extrapolation of the increased export prices over pending exports’ volume. It would be more visible this year for Corn and Sunflower Oil exports than for Wheat, although it would encourage planting decisions for 2022/2023 crop year.

“Assets” and “Flows” to control

◇ “Black Earths” – Direct or indirect control over Ukraine would allow Russia to take advantage, as it happened during the USSR of one of the world’s most fertile soils: the “Black Earths” which although subject to certain erosion have identified Ukraine for over a century as the “European Breadbasket”.

In order to assess their relevance, it must be taken into account that:

- Approximately 57-66 % of Ukraine’s 603,000 sq.km area, i.e. almost 33 million Hectares, is made up by arable lands highly suited for Grains (mainly Wheat, Corn and Barley), Oilseeds (mainly Sunflowerseed, followed by Rapeseed and Soybeans), Vegetables and Fruits¹.

Figure N° 1 exhibits the three main types of Ukrainian soils: Forest in the N-NE, Forest-Steppe in the Central Region, and Steppe in the SE.

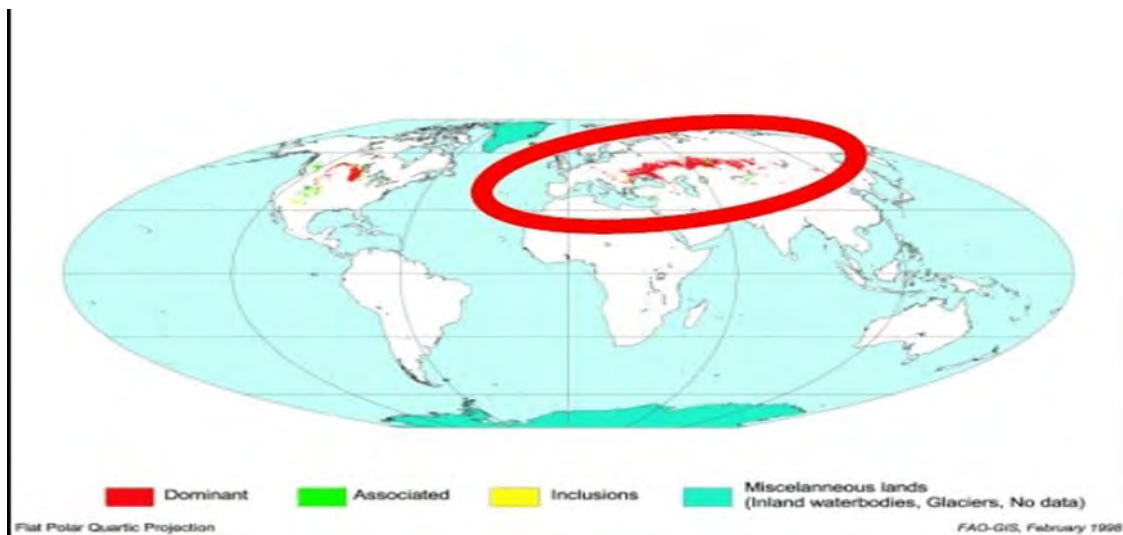
Figure N° 1. Ukrainian Types of Soils



Source: <https://www.fao.org/3/ca7761en/CA7761EN.pdf>

- Both in the Central and Southeastern Regions, the type of soil is characterized as “Chernozems” or “Black Earths”, famous for their high fertility based on their humus content. On this regard Ukraine accounts for almost 25 % of the world’s “Chernozems”, and the Ukrainian ones are linked with similar in the South of Russia forming an arch up to Kazakhstan. (Figure N° 2).

Figure N° 2. Deployment of Chernozems



Source: <https://www.fao.org/3/y1899e/y1899e11.htm>



Source: <https://russian-farmland.com/soils-of-russia.html>

- Such Central and Southeastern regions of Ukraine are the main crop areas of Wheat, Corn and Sunflowerseed as well (Figure N° 3).

Figure N° 3. Ukrainian Crop Areas of Wheat, Corn and Sunflowerseed

Ukraine: Wheat Production



USDA Foreign Agricultural Service
U.S. DEPARTMENT OF AGRICULTURE

Source: State Statistics Service of Ukraine (Rosstat for Crimea Oblast)
Average Wheat Production 2016-2020

Ukraine: Corn Production



USDA Foreign Agricultural Service
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Source: State Statistics Service of Ukraine (Rosstat for Crimea Oblast)
Average Corn Production 2016-2020

Ukraine: Sunflower Seed Production



USDA Foreign Agricultural Service
U.S. DEPARTMENT OF AGRICULTURE

Source: State Statistics Service of Ukraine (Rosstat for Crimea Oblast)
Average Sunflower Seed Production 2016-2020

Source: https://ipad.fas.usda.gov/rssiws/al/up_croprod.aspx

From my perspective, the precedent graphs visually confirm an assumption that the Russian support to the secession of the Donbass included, in addition to the security-driven arguments, economic considerations related to Ukrainian agribusiness resources.

◊ **Production of Wheat, Corn and Sunflowerseed.** In addition to a potential control of almost 33 million Hectares of the world’s most fertile soils, the other “asset” is related to the crops deployed in such lands, particularly Wheat, Corn and Sunflowerseed. Based on the data exposed in the Annex (average for 2015/2020), from my perspective the main take-aways are:

- Regarding production of Wheat and Corn, a potential Russian control would not add a significant market-share to that country: 3.5 % in Wheat, being Russia already the 4th world producer, while for Corn even Ukraine’s market-share doubles Russia’s, jointly they would represent less than 4 % of the world production.

- Fully different is the situation on Sunflowerseed because a potential joint Russian-Ukrainian production would be almost 50 % of the world's, reinforcing even more the current Russian market-share, as its oilseed production is mostly crushed, rather than exported as raw material (as also happens with Ukraine).
- However, from my point of view what would be also worthy for Russia is not just the acreage in such arable lands, but the higher Ukrainian yields compared to the Russian ones: 44 % more in Wheat, 25 % more in Corn and 42 % more in Sunflowerseed.

◊ **Exports Flows.** Even if the control over such “assets” is significant, a similar or higher value conveys the control of the Ukrainian export flows of such commodities in current world trade. Despite its relative ranking as Wheat and Corn producer, Ukrainian role changes significantly when related to its share in world trade flows: **5th exporter of Wheat, 4th of Corn and 1st of Sunflower Oil, doubling in the latter the Russian market-share².**

These market-shares in world trade flows have represented for Ukraine an inflow of almost US\$ 13 billion as average for 2019/2020. In addition to some advantage on such amounts, a Russian control conveys a major geopolitical value, given the main customers of these Ukrainian commodities' exports: Egypt and Turkey for Wheat; Iran and Turkey for Corn; Iraq and Egypt for Sunflower Oil³.

Impacts for Argentina

Although the increase in the prices of agribusiness commodities' affected by Ukraine's role in world trade flows has been automatic vis-a-vis the military situation (as with energy prices), such positive impact for a country like Argentina as an exporter competitor to Ukraine, cannot be assumed as immediate.

Figure N° 4 exhibits Official FOB Prices (Argentine Ports) comparing two dates of exports' registers and different shipment periods (it must be kept in mind that Official FOB Prices are mandatory in Argentine for Export Taxes paid on such exports, and are regularly estimated by a government agency upon different sources: traders and exporters information and data from reference markets, both local as Rosario and Buenos Aires Grain Exchanges, Chicago Board of Trade, Kansas, Rotterdam and others):

Figure N° 4. FOB Prices (Argentine Ports) (US\$ / TON)

DATE	SHIPMENT PERIOD	WHEAT	CORN	SUNFLOWER OIL	VAR. (%)
2021/Dec/30	Jul – Dec 22	391			16.5
2022/March/4	Jul – Nov 22	455			
2021/Dec/30	March – May 22		253		35.6
2022/March/4	March – May 22		343		
2021/Dec/30	March – Dec 22			1,320	51.5
2022/March/4	May 22 - Feb 23			2,000	

Source: based on data from Argentine Ministry of Agriculture, Livestock and Fishing’s database

At what extent Argentina would be able to collect such benefits depend on several factors, both international and domestic.

Internationally and regardless of when and how the war ends, a likely scenario is that both Ukraine and Russia might be out of these commodities markets for at least 1-2 years, due to productive, economic and financial issues, plus the usual trade and freight disruptions.

Regarding Argentina, it can be expected a positive impact of this prices’ increase for planting decisions to be taken during the second half of the year, although impact on inputs (seeds, ag-chemicals and fertilizers) are yet under assessment.

Short-term impacts for Argentina are related mostly to how many export volume was already committed prior to the war--and thus contracted at pre-war prices plus the balance between total harvest and domestic uses; local farmers’ decisions to retain or sell their grains; freight issues and international topics such as inflationary impacts on demanding markets and chances to substitute these commodities for cheaper ones.

Overall, in a globalized world economy, it is very hard to assume that such disruption would deliver only positive impacts to an individual country, or that they would remain in the medium-term, beyond the fact that even if positive, nobody should feel comfortable as such situation is the outcome of the suffering of a society due to the violent attitudes of another.

Annex - Tables

WHEAT						
YEAR	WORLD		RUSSIA		UKRAINE	
	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)
2015	741.85	170.87	61.79	21.23	26.53	13.45
2016	748.44	190.05	73.35	25.33	26.10	17.92
2017	772.29	196.60	86.00	33.03	26.21	17.31
2018	732.14	190.90	72.14	43.97	24.65	16.37
2019	764.98	180.17	74.45	31.87	28.37	13.90
2020	760.93	198.53	85.90	37.27	24.91	18.06
AVG.	753.44	187.85	75.60	32.12	26.13	16.17
CORN						
YEAR	WORLD		RUSSIA		UKRAINE	
	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)
2015	1,052.72	146.96	13.17	3.70	23.33	19.05
2016	1,127.45	154.02	15.28	5.32	28.07	17.28
2017	1,138.72	161.55	13.21	5.18	24.67	19.39
2018	1,124.26	173.68	11.42	4.78	35.80	21.44
2019	1,141.36	184.71	14.28	3.12	35.88	25.36
2020	1,162.35	192.89	13.88	2.29	30.29	27.95
AVG.	1,124.48	168.97	13.54	4.07	29.67	21.75
SUNFLOWER OIL						
YEAR	WORLD		RUSSIA		UKRAINE	
	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)	PRODUCTION (Mills. Tons)	EXPORTS (Mills. Tons)
2015	15.29	9.38	3.69	1.44	3.72	3.94
2016	16.05	11.13	4.22	1.79	4.42	4.84
2017	18.18	13.07	4.65	2.33	5.28	5.77
2018	18.41	12.66	4.64	2.10	5.15	5.59
2019	20.05	13.84	5.42	3.10	5.84	5.48
2020	21.20	15.61	5.10	3.21	7.40	6.86
AVG.	18.20	12.62	4.62	2.33	5.30	5.41
YIELDS						
YEAR	WHEAT		CORN		SUNFLOWERSEED	
	RUSSIA (Tons/Hect)	UKRAINE (Tons/Hect)	RUSSIA (Tons/He)	UKRAINE (Tons/Hect)	RUSSIA (Tons/Hect)	UKRAINE (Tons/Hect)
AVER- AGE 2015-20	2.8	4.0	5.2	6.4	1.6	6.4

Sources: own elaboration upon FAO- FAO Stat – World Bank and USDA – FAS Reports

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