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GLOBAL ECONOMIC INFLUENCES GENERATED BY THE CURRENT UKRAINE-RUSSIA CONFLICT

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Abstract

We live in a world that is changing at an unprecedented rate in all areas of life. Technology, automation and artificial intelligence will be the deciding factors of major changes in the global socio-economic picture by 2030. Because the road to a sustainable economy is unquestionably challenging, the onset of the Covid 19 has slowed this progress, and in some countries, especially low-income countries, it has even declined. In this context, the reality of recent months has shown humanity that we are still very vulnerable to the danger posed by military wars, with weapons and tanks, as we no longer thought possible in the context of the current explosion of information and technology, AI and VR. Unfortunately, we cannot oppose the evolution of humanity, with or without wars, including economic ones, with the major risk that things will "go crazy", especially if the technology becomes a tool against humanity.

Keywords: future, agriculture economy, war, humanity, export, import, forecast

1. INTRODUCTION

This paper presents the agricultural picture and the forecast of the EU's relationship with Ukraine and Russia up to this conflict and a current perspective, in the context of the crisis caused by the military conflict between Russia and Ukraine. Both countries play a major role in the global agricultural market. Initially, we address the updated 2019-2020 database, provided by the European Commission's prospective study during the Covid 19 pandemic on agri-food markets up to 2030, including on food imports from Ukraine and Russia. The study was conducted in the AGMEMOD system, recommended to be applied for generating projections for agricultural markets of the EU and neighboring countries. The outlook was based on information that was available and relevant, at the time when the analysis was performed.

The effects of the pandemic have drawn attention to the global food system, which has become a priority for the Food and Agriculture Organization of the United Nations (FAO), as it risks a major collapse by 2050 if not reinvented entirely with the participation of all actors involved, from the government to the consumer, individual.

2. THE AGRICULTURAL ECONOMY OF THE CONFLICT COUNTRIES

Russia and Ukraine together, account for more than a quarter of the world's agricultural commodity economy. Russia and Ukraine are two substantial players in the world commodity market and together signify for more than a quarter of the world's agricultural commodity economy (especially wheat) - Russia produces about 10 % of global wheat, while Ukraine accounts for four percent. Combined, this is nearly the size of the European Union's total wheat production. In 2020, Russia accounted for 18 % and Ukraine for 8 %.

Both countries are also among the largest producers and exporters of sunflower oil - in 2020, exports will be 40% to Ukraine and 18% to Russia, from global exports of sunflower oil. Also is even more significant level of world exports refers to corn, the combined production of the two being four percent.

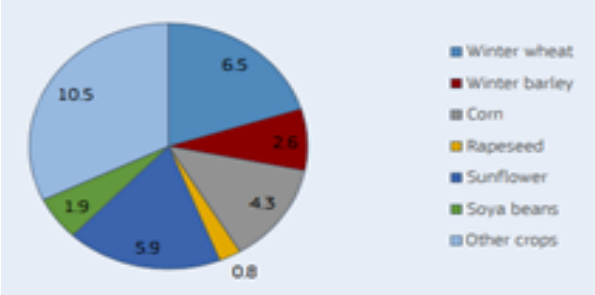
Ukraine is the second-largest country in Europe after the Russian Federation, holding about 42.2 million ha of agricultural land - 70% of the country's total area. The abundance of chernozem soils (27.8 million hectares) plus the climatic and landscape characteristics that allow large yields, Ukraine capitalized all this potential to become an agricultural power, at the European and global level, currently cultivating cereals, oilseeds and other annual crops on about 80% of the total agricultural area used. (WBD, 2021 [21]; SSSU, 2020a [20]). Ukraine has been known for centuries as the "Europe's breadbasket" and also like a "food granary for Europe" with a key contribution to the global food supply chain, especially for developing countries [24].

Over the past decade, crop production has dominated Ukrainian agriculture, almost tripling the growth of cereals and oilseeds (2021).

With one of the most fertile lands on Earth, Ukraine has remained among the top ten exporters of wheat, corn and sunflower oil worldwide for almost a decade. For example, exports to the EU in the last 5 years before the pandemic, increased by 74.6% for cereals, 61.0% for animal and vegetable fats and oils and by 27.7% for oilseeds (Eurostat, 2021 [14]).

For several years now, it has also gained high shares in global exports of soybeans, honey, apples and berries (FAOSTAT, 2021[17]).

Figure 1. Average 2015-2019 crop areas, million ha

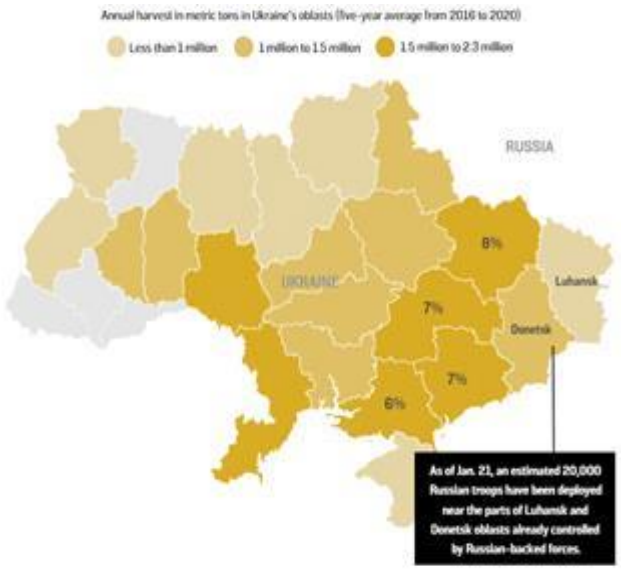


Source: based on SSSU (2020b) and FAOSTAT (2021)

In the period 2015-2019, the crops of corn, winter wheat, winter barley, sunflower, soybeans and rapeseed were harvested on almost 70% of the total area of arable land, even around 79% of crop production accounted from gross agricultural production, in 2019. The winter wheat, sunflower and corn accounted the largest elevations of this area (Figure 1).

Figure 2 shows the current statistics and projections on the harvested areas of the main arable crops in Ukraine.

Figure 2. Ukrainian wheat production



Source: Foreign Agricultural Service of the US Department of Agriculture; State statistics service of Ukraine

By 2020, about 44% of the national export value ($ 3.3 billion) is attributed to agriculture.

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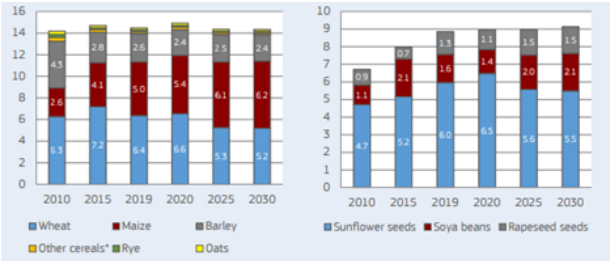
2.1. Agricultural markets in Ukraine - outlook until 2030

The forecast results for 2030, according to the AGMEMOD study, have been closely linked to the adaptation of Ukrainian lands and crops to climate change in recent years. Significant annual weather fluctuations increase the uncertainty of yield intensification, by improvement of seeding materials, farming and agricultural practices, on the one hand, and the availability of sowing, on the other. (Melnyk et al., 2017 [7]). At the same time, climate change is narrowing the area of successfully crops (Nivievskyi et al., 2015 [8]).

According to forecasts for 2030, improving crop yields would increase cereals production and expanding cultivated fields will grow mainly oilseed production.

In the same time, prognosis show us a possible, moderate increase in the amount of wheat, while corn was seen as the grain that will become dominant in Ukrainian agriculture. It also predicted an increase in rural households of soybeans, rapeseed and sunflower seeds, along with quantities of oils and oilseed meal. However, by 2030 total cereals area harvested is projected to remain nearly unchanged (14.3 million hectares), it is anticipated that Ukraine will continue to be a net exporter of cereals, oilseeds and meals, in the next decade.

Figure 3. Observed and projected changes in harvested production

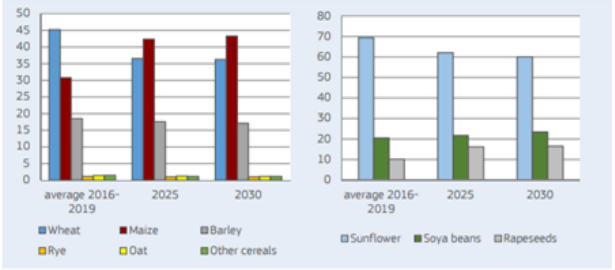


* _ other cereals include rice, buckwheat and millet

Source: AGMEMOD database, based on Eurostat and National Statistics. (2020)

Figure 3 demonstrates observed and projected changes in yield and production (the harvested areas) of the main cereals and oilseeds, in 2010 - 2030 in Ukraine (million hectares).

Figure 4. Shares of crops in the total cereals and oilseeds areas, %



Source: AGMEMOD database, based on Eurostat and National Statistics. (2020)

As presented in Figure 4, the specialists' view for 2030 on the share of crops in the total cultivated areas showed a decrease in the share of wheat, from 45.2% in 20162019 to 36.3% in 2030 and barley from 18.5% to 17, 1%, allowing corn to grow from 30.8% to 43.3% - corn has become the most important grain in the country. A decrease in sunflower crop was also expected from 69.3% in 2016-2019 to 60.0%, but an increase in rapeseed and soybean acreage from 10.2% to 16, 5% and from 20.5% to 23.4%, respectively (Agricultural markets in Ukraine [12]).

Such growth will result from improvement of the yields, of seeding materials, farming and cultivation practices and an ongoing farm structural change.

2.3. Global economic influences

The two countries, Ukraine and Russia, impact world trade with 30 percent of world's trade in wheat and barley, 17 percent of corn and more than 50 percent of sunflower oil, seeds and animal feed cakes. Also, Ukraine is a major source of non-GMO soybeans, a staple for feeding animals.

Grain exports have been and remain the mainstay of Ukraine's economy, which, thanks to its huge agricultural potential, has become a major player in world agricultural markets as well.

In this regard, Ukraine currently has 17 trade agreements (FTAs, 2014 [18]) covering 47 countries, in order to improve trade between countries.

A member of the WTO since 2008, in 2017 it signed an agreement with Canada (FTAs, 2017 [19]) and in 2018, Ukraine acceded to the Pan-EuroMediterranean Regional Convention on Preferential Rules of Origin (Pan-Euro-Mediterranean Convention). The year 2021 brought Ukraine a trade agreement with Israel and the United Kingdom, being in negotiations with Turkey. Aided by a favorable geographical position with access to the Black Sea, Ukraine has also, direct access to key markets in the Middle East and North Africa. More than half of the country's corn and wheat shipments go to Africa and West Asia (Middle East), which are heavily reliant on imports from Ukraine.

In 2020, African countries imported $ 4 billion worth of agricultural products from Russia - about 90 percent of it was wheat, and Ukraine exported $ 2.9 billion worth of agricultural products to the African continent in 2020. About 48 percent of it was wheat, 31 percent corn, and the rest included sunflower oil, barley, and soybeans. The main exports go to Egypt - almost half of the imports, followed by Sudan, Nigeria, Tanzania, Algeria, Kenya and South Africa.

Given that Africa is a net importer of wheat and sunflower oil, there are major concerns about disrupting or lockdown to shipments, which increases the already existing risks of food price inflation and drought in some parts of the continent.

3. METHOD

The presentation of the data used for the analysis of the trends related to the agriculture of Ukraine, before the conflict with Russia, according to the market prospecting until 2030 (provided by the AGMEMOD system) is intended to be a clear step on the impact created by the war - the Ukrainian conflict looks already like the worst war in Europe, since 1945. It is important to have knowledge of Ukrainian agricultural production and its specifics, as long as this country has a high percentage of global agri-food exports, but especially to be able to work with existing databases to create relevant forecasts, with viable measures on possible future trends in European agri-food markets.

AGMEMOD is a partial equilibrium system, on medium-term, based on a set of country model templates. It is, in itself, an econometric, dynamic, multicountry, multi-market model, which includes all EU Member States, some EU neighbors (eg. Ukraine, Russian Federation, Balkan countries and the United Kingdom), some African countries. and a stylized version of the rest of the world (RoW), with reference to the respective domestic agricultural trade and environmental policies (Van Leeuwen et al., 2012[11]). AGMEMOD's commodity markets are represented by supply-side equations, stocks, international trade and country-specific market prices, based on data from national statistics, Eurostat. (Salamon et al., 2017 [9]; Chantreuil et al., 2012 [4]). In addition to reference projections, the AGMEMOD model also allows the analysis of macroeconomic changes on agricultural markets (Salamon et al., 2019[10]), with annual projections until 2030.

Research into the impact of the COVID-19 pandemic has proven the resilience of European agriculture, the survival of agri-food production and trade, even in a medium- and long-term crisis.

From this perspective, the AGMEMOD analysis was chosen, starting from the idea that the current military crisis can generate economic consequences similar to those caused by covid 19, facilitating the way in which European officials can relate to means and methods of economic recovery and sustainable policies.

4. ECONOMIC RISKS IN WAR CONTEXT

All global conflicts usually bring ambiguity and social and economic uncertainty. They are the perfect space for camouflaging anti-humanitarian actions, by manipulating and distracting the attention of the "victim" of the conflict.

Such a situation could be the one created by the military conflict between Ukraine and Russia, starting from the principles of protection of the rights of people from areas affected by extremist struggles, reaching in a few days a renewed "perfect" offensive, with consequences difficult to imagine economically and financial, global.

The conflict in Ukraine comes and exacerbates the current stressors created by the Covid pandemic 19, especially since the world economy has not fully recovered, post-pandemic.
The Eastern European conflict has been going on since 2014, and over the years, war operations between hostile narratives have intensified until peace talks began to stall.
Ukraine's agri-food trade with Russia has already fallen sharply after the annexation of Crimea in 2014, in the context of Moscow's embargo on many EU foodstuffs, in response to EU sanctions on Russia (Fellmann. et al., 2014 [4]).
Global food security is highly vulnerable to situations that could disrupt Ukraine's exports. Both the United States and Europe are constantly monitoring and analyzing at food and energy security, providing economic support to Ukraine, to bring it as close as possible to the West.
The Ukrainian agricultural system is heavily subsidized by the EU, making it a major exporter.

4.1. The Conflict

Russia's rapid offensive is already having a major impact on global food security, especially for developing nations, and a prolonged offensive by Ukrainian resistance is likely to lead to a food collapse, including an impact on the United States.
According to Bloomberg, Russia's invasion of Ukraine poses huge risks to a global economy, implicitly serious side effects for European farmers and the wider food system [25].
Also, the Russian economy is already feeling the effects of its Ukrainian "bet". Although Western markets have not yet, seen major price increases, they are expected and the U.S. stock market is already restlessness at the risk of the US Fed raising interest rates to combat inflation created by the Ukrainian conflict [24].
Stopping grain exports due to the war, which affects Ukraine's port activity, worries the European Commission about internal food security.
MEPs emphasized the need to rethink and strengthen the European food strategy, given that EU food production is heavily dependent on fertilizers and animal feed - feed crops for the massive meat industry and dairy products from Europe, mostly from Ukrainian exports. The same goes for natural gas imported from there. All Ukrainian exports are made on the main trade route offered by the Black Sea. In the event that seaports have stalled due to the war, major changes are not expected to occur until the end of the war, which threatens the European food industry as much of EU's meat and dairy industry is based on imported feed crops from Ukraine, in turn conditioned by Russian gas and fertilizers. Any delay or unable by Ukraine's farmers to plant crops in 2022 increases the risk of lock-on the summer harvest, which could push the food crisis into the medium term and create a long-lasting vulnerability to food security in the EU. Africa's link to the Ukraine-Russia war are also complicated, as developments in the conflict could have an impact on the economies of African countries, and a major risk of increase hunger and poverty on the continent - the most vulnerable at the level of hungry peoples.

4.2 Effects on Romania

In Romania, the Ukrainian-Russian conflict complicates, at first view, the economic situation already severely affected by the inflation explosion, mainly due to higher energy and gas prices, which were immediately found in the price of off-the-shelf products. Before the war began (February 2022), the annual change in consumer prices was 8.6%, the strongest increase in 17 years. Although the National Strategy and Forecast Commission estimated an economic growth of 4.3%. for 2022, an estimate that no longer appears relevant in the current global context.
However, a slowdown in economic activity as an impact of this conflict could have a beneficial effect on us, on the one hand, because it would help us to deflate in the conditions of a stable exchange rate, leu-euro, on the other hand, will increase the risks of economic downturn.
Generally speaking, Romania's relations with Russia and Ukraine are limited, with only 1.4% of Romania's exports to the Russian Federation, with imports accounting for only 3.2%, mostly in the energy area.
Even protected by government measures, high inflation in Romania will reduce people's purchasing power, and global economic measures generated by the war in Ukraine will increase the number of people at risk of poverty.

5. GLOBAL EFFECTS OF WAR. CONCLUSIONS

For the people of the world, who are all of us, the Russia-Ukraine conflict means, first of all, a pressure on prices, which will persist in the medium or long term. Every agricultural impacted by the conflict is paying attention to the military developments in the Black Sea region because the economic impact will be felt not only in Europe but also in other regions, such as Canada, the USA or the Middle East and Asia. The latter, at least, will be directly affected by the disruption of agricultural trade.
For projections of European agriculture and the future trade policies of Ukraine and Russia, it is too early to assume a growth of the economy or a positive evolution of world market prices for agricultural goods, being wise to show a reserved conduct in the projections of agricultural markets in Ukraine military movements between the two countries.
The European economy is unlikely to bear the increasing burden of rising world commodity prices as a result of the war. Its consequences are already being felt in terms of the price of oil, which climbed past $100 a barrel, for the first time since 2014, while European natural gas jumped as much as 62%.
The effects of Russia's invasion in Ukraine will deepen high inflation and the instability of financial markets - the two key vulnerabilities brought by the Pandemic to the global economy. The major fuel crisis threatens the

market for goods and services and the purchasing power of people, implicitly hindering the level of economic investment. Even the Federal Reserve and the European Central Bank are rethinking monetary policy measures. Managing prices and keeping growing economies become a double challenge for central banks, whose confidence is already affected.

Beyond all these challenges, some European officials say Ukraine's importance to the global economy, is possible be overstated, although it is recognized as a resource rich country.

Ukraine's resistance has increased the optimism of European officials. Some opinions are even positive, downplaying fears about food shortages and describing the EU's agri-food system as "hugely resilient and powerful, and that it had proven as much during the pandemic", according to Michael Scannell, the second most senior civil servant at the Commission's agriculture department, told MEPs on the Farm Committee. European officials have a change perspective, according to which the collapse or fret created by the military conflict can be used as a perfect opportunity to rethink the European animal-centric agricultural model by building up a sustainable agricultural system, to avoid dependence on one-way imports.

Likewise, the post-war economic recovery of Ukraine is likely to create the perfect space to bring innovations and new technologies to the growth of cereals and oilseeds. Although the first measures taken by Western governments in the face of the Russian crisis were to punish Russia, they realized that doing so could increase the impact of the conflict on their own economies. Russia is the EU's sixth largest trade partner for agrifood goods. So, whether or not it stays that way, the severity of Western sanctions and possible retaliation from Russia, including Russian cyberattacks, are interrelated to the increasing and diversifying effects of the conflict on the global economy, without ruling out possible upheavals following the exodus of Ukrainian refugees.

New EU sanctions against Russia are likely to disrupt EU exports of luxury food, but are expected to be an obstacle to Russia's food trade.

There are still many things that are not known about the next geopolitical challenges. If in the short term, the impact will be felt through an increase in prices, rather than through a real shortage of goods, in the long run we depend on the extent and depth of the conflict. Ultimately, our primary goal should be to defuse the conflict, not to demand sanctions that will strengthen the conflict.

Beyond all these military and economic aspects, the consequences of this Ukrainian-Russian aggression will leave deep traces in the memory of Europeans and will affect the quality of life and well-being state, not only of those involved in the conflict but of all ordinary Europeans - the most vulnerable people on the continent, at agri-food level, which requires of European officials "to be aware". Also, people will must to reinvent themselves not just once, but again and again, throughout their lives!

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