



Ukraine's Grain Exports Reach Africa Again (despite many obstacles reducing producer income)

- Part I **Russia threatening Global Food Security**
- Part II **Weaponizing Wheat**
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- Annex **Corn and Wheat import by African countries**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 101000751



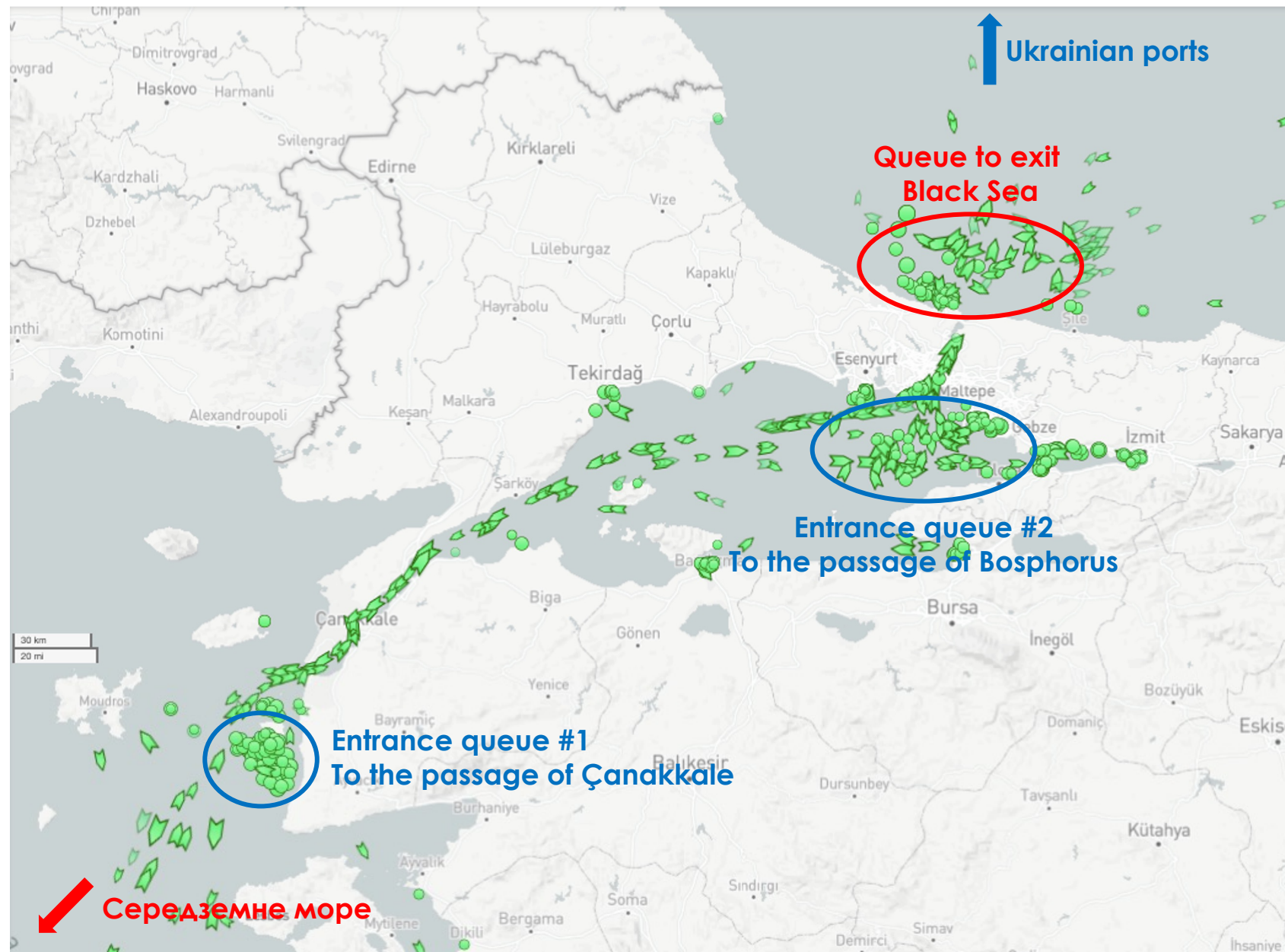
Part I

Russia threatening Global Food Security

“
Based on production forecasts, no matter how much Ukrainian wheat Russia allows to pass through the Black Sea, 2.5 million tonnes more (Ukrainian) wheat will be on world markets than before the conflict began.

S. Evenett (cf. slide 14)

”



For Ukrainian grain, Inspections in the Bosphorus are for both **entry** and **exit** of the Black Sea. In both directions, there is a significant delay in conducting inspections and passing vessels.

According to traders, the waiting period for their ships at the beginning of February is **30-50 days**, and this time has increased significantly in recent months. This cause huge demurrage which lowers prices in Ukraine (for farmers) and also makes trade much riskier (for importer) due to possibility of disrupting Grain Initiative.

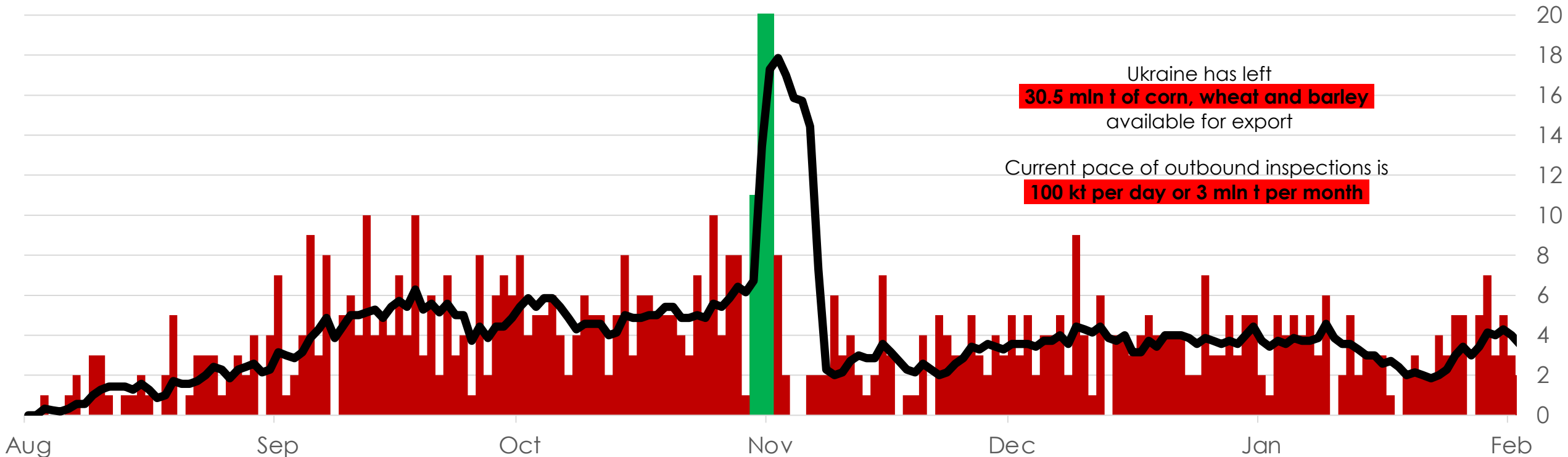
The terms of the Grain Initiative expires on March 20 — all sides must agree on its extension.

From Feb 1 to Mar 20 is only 47 days left. Risks of vessel won't be able to pass Inspections till Deadline increasing everyday. **In the middle of February booking of new vessels could stopped.**



Outbound inspections pace (from Black Sea)

■ Пройдено інспекцій — Темп інспекцій в середньому за 7 днів



In January, inspections of vessels leaving the Black Sea stalled. On average, 3 vessels were inspected per day. The average demurrage per vessel was 8 days, much better than for the entrance to the Black Sea, but this is additional costs for exporter and the waiting period for grain importers.

Traders repeatedly noted the "Work-to-rule" type of strike, when the verification of the completion of the inspection was postponed to the next day due to the end of working hours, even if there were a couple of minutes left to complete the inspection.

Areas of Russian military control in Ukraine



- Russian military control
- Held or regained by Ukraine
- Limited Russian military control
- Russia annexed Crimea in 2014

Source: Institute for the Study of War (21:00 GMT, 1 February)

BBC

This time, the situation is more threatening. The waiting time for inspections has increased from 2-3 weeks to 4-6. This means that the vessels that will line up to enter the Black Sea in mid-February will have no time to leave it loaded with Ukrainian grain. So importers will be able to book only deliveries after March and risking that Grain Initiative won't be continued.

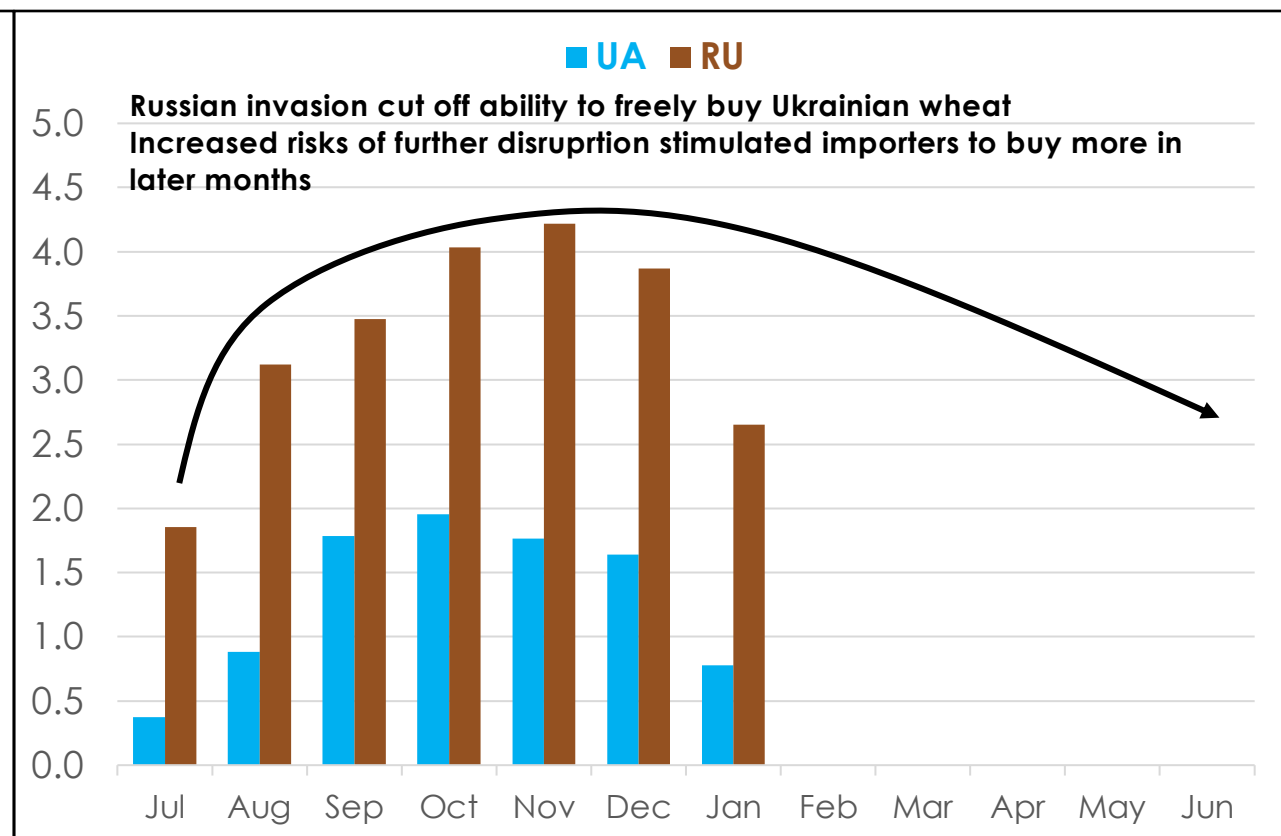
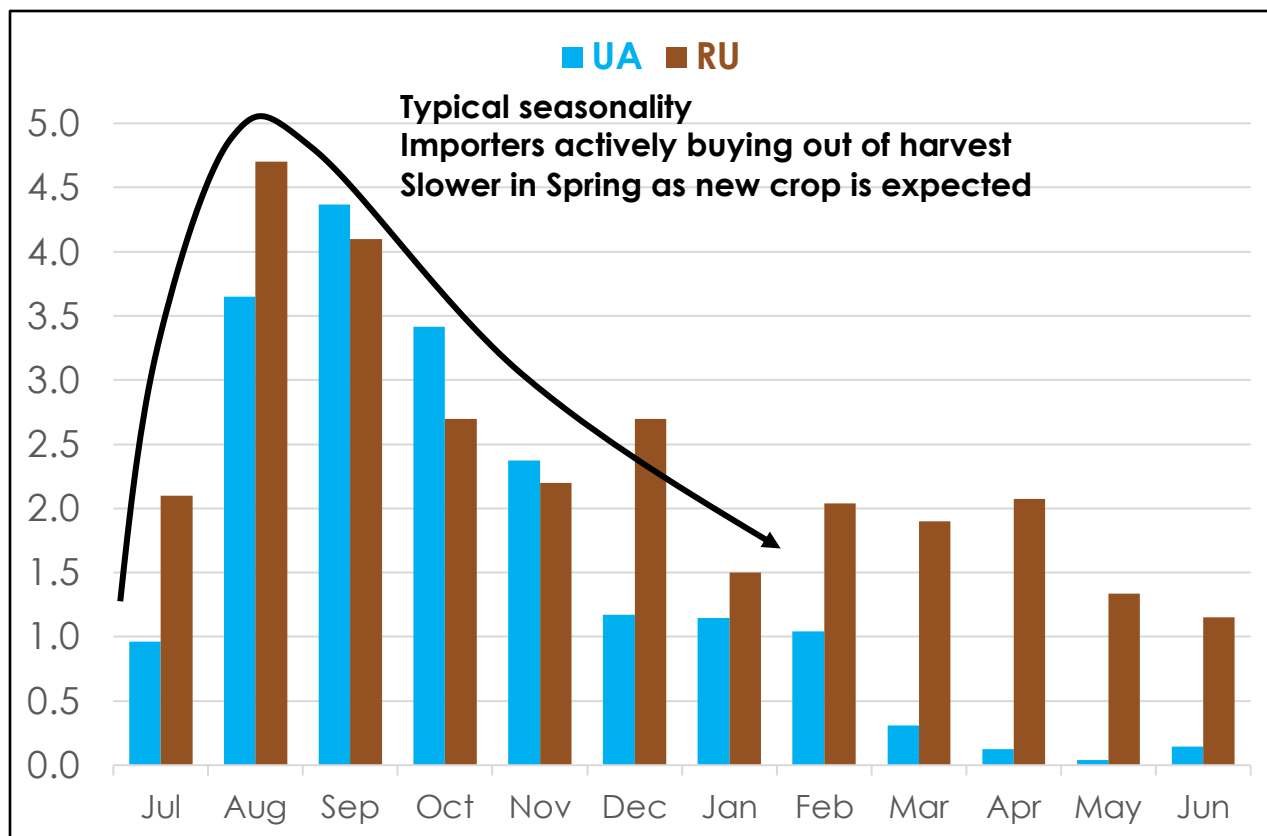
This should affect grain market in the near future and will support prices on the world stage. Primarily this may affect corn, because besides US and Ukraine currently there are only minor exporters.

In addition, there is a risk of the beginning of a new stage of the Russian-Ukrainian war. Officials also expecting that this will happen in the period of February-March - the time when the future fate of the supply of Ukrainian grain to the world arena will be decided. Both Russia's successes and its defeats may make it less compliant with the Grain Initiative, which supports Ukraine's agricultural sector and also replenishes the budget.

Therefore, the coming months will be a test of the determination of Ukraine's partners not only in military and financial aid, but also in ensuring the action of the Grain Initiative, which is necessary to increase the food security of needy countries.

Wheat exports in 2021-22 (mln t)

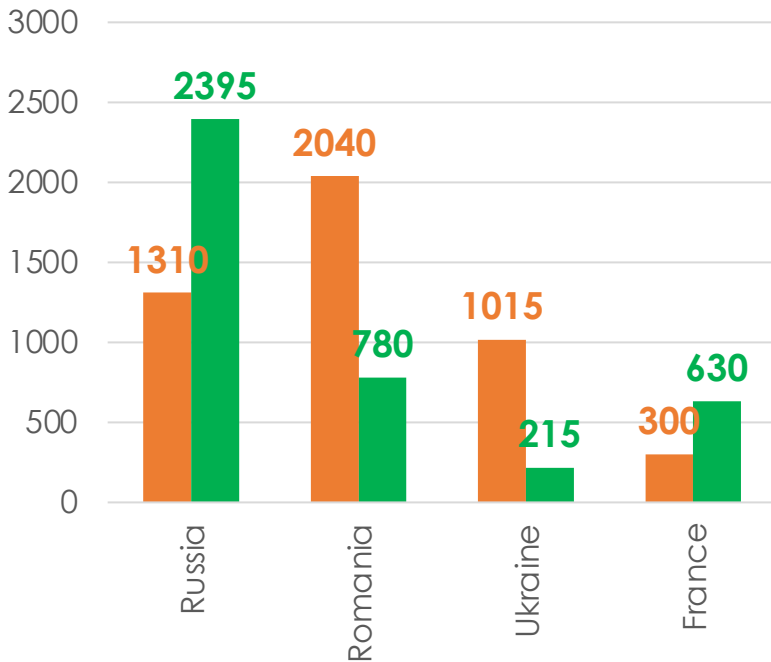
Wheat exports in 2022-23 (mln t)



While Western countries support the Grain Initiative to facilitate the supply of grain and oilseeds from Ukraine to importers, Russia is using the situation for its own benefits. **1)** allowing Ukraine to export grain allows you to use this fact to present yourself in a positive light. **2)** Russia uses the Grain Initiative to bargain for easing sanctions on its own grain and fertilizers. **But at the same time, Russia is sabotaging the Grain Initiative itself.** **3)** Slower inspections (if at all) allows Russia to significantly limit the potential of the supply from Ukraine (which supports prices), **4)** at the same time it improves Russia's standing in common sales markets, primarily Egypt, other countries of North Africa and the Middle East.

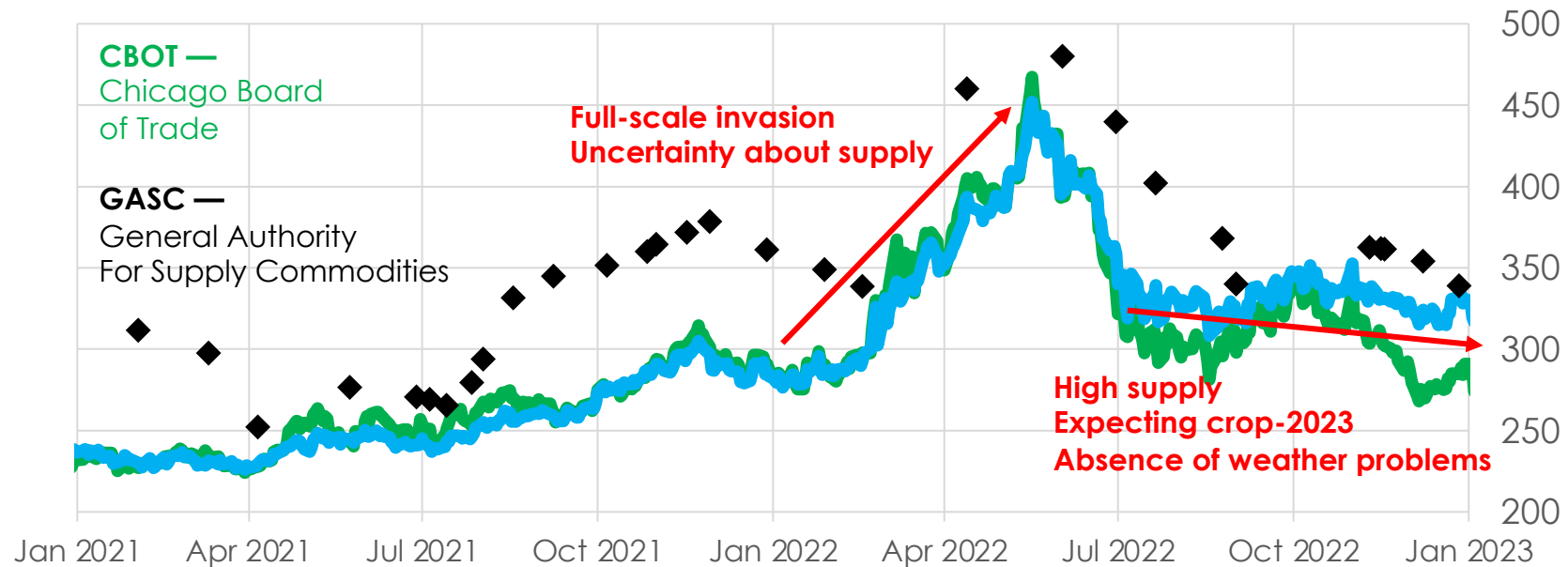
GASC* wheat imports (kt)

■ 2021 ■ 2022



World wheat prices vs Egypt government tenders (GASC) results (\$/t)

— CBOT — Euronext ◆ GASC

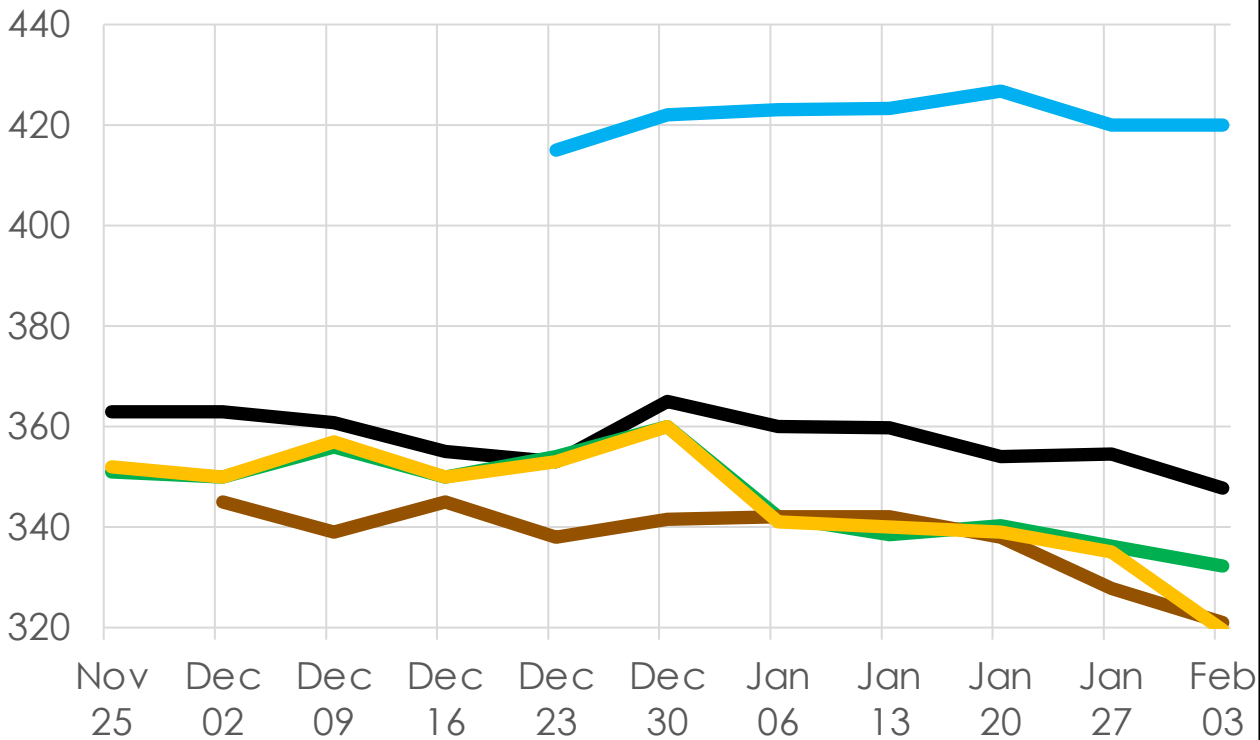


Egypt is a good indicator of the situation in the wheat market, because it is the largest importer in the world. In addition, the main sellers are Ukraine, Russia, as well as EU countries, in particular Romania, through the ports of which Ukrainian wheat is also exported.

After 24 February 2022, the uncertainty about future deliveries led to strong price growth. As a result, the Egyptian government was forced to purchase wheat at a much higher price despite upcoming harvest in N. Hemisphere. In 2023 the situation is the same — despite the expectation of a big harvest in the N Hemisphere in the next summer, Egypt still forced to purchase wheat at the same price levels as last year, choosing between narrower list of exporters.

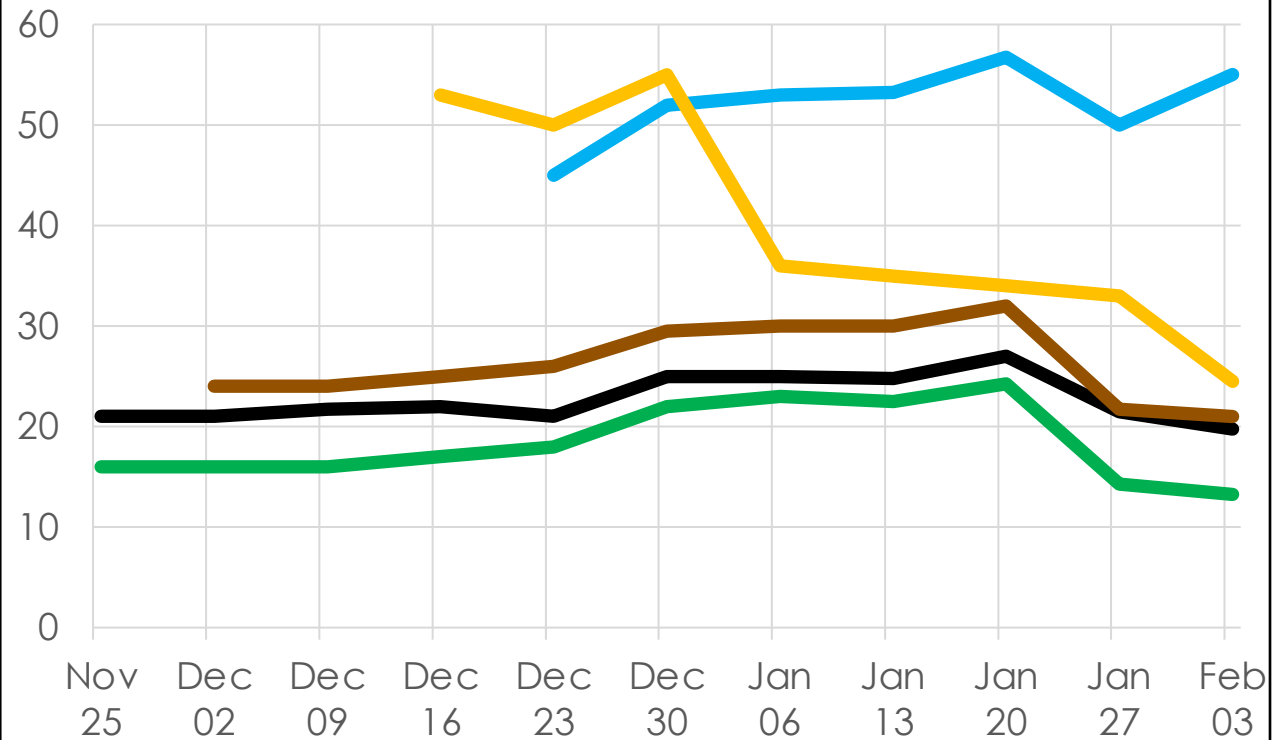
Wheat C&F Egypt (\$/t)

— Argentina — Germany — Romania — Russia — Ukraine



Wheat freight Egypt (\$/t)

— Argentina — Germany — Romania — Russia — Ukraine



Despite all the problems caused by the war, Ukraine must remain competitive on the market. This means that the prices at which importers buy Ukrainian grain cannot be more expensive than other suppliers. The graph on the left shows C&F prices - that's what the importer pays at the port of delivery. The case is the cost of grain delivery from the exporter's port to the importer's port. The more expensive the freight, the lower the prices at the exporter's port, the lower the prices the farmer receives. The problems of Ukrainian exports by sea, to which Russia has led, make the cost of freight twice as expensive as in neighbouring Romania, where in peacetime the difference was practically absent.



Part II

Weaponizing Wheat

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 101000751



Sources: USDA, IGC, Simon J. Evenett, U St.Gallen and SGEPT Marc-Andreas Muendler, UC San Diego, CESifo and NBER "Weaponizing Wheat: Moscow's Menace to Food Security in 2023"



The Grain Initiative is important but it isn't the only game in town – the Russian government seeks to weaponize wheat exports

Does Russia have the means to do it?

✓ **Before the invasion** Ukraine and Russia were major suppliers of wheat to world market

During the 2020/21 **Russia** was the world's largest single wheat exporter (**38.7 million tonnes**). By comparison, **Ukraine's** entire annual harvest of wheat is only **25.4 million tons**, far less than Russia's net exports, and is dwarfed by **Russia's** production of **85.3 million tons**.

✓ **For more than a decade** Russia has applied export bans/taxes/quotas on its wheat shipments

These policies are part of Russia's broad-based agricultural trade management. Last year alone, Russia **changed agri-export policies 95 times**.

Foreign governments and international organizations should monitor not only Russian export tax changes but also Moscow's state purchases of wheat from Russian farmers. Conceivably, Russia could stockpile plenty of wheat and then engage in "wheat diplomacy" with countries that are desperate to feed their populations.

✓ **Since 2009** Russia has intervened in the wheat market through the Kremlin-owned trading company **UGC**

To withhold grain from the world market, UGC purchases domestically grown wheat for stockpiling. UGC has offered the Kremlin to buy 3 million tons of wheat by 2024. In July 2022, the Russian Ministry of Agriculture announced that it had purchased 1 million tons of wheat.

✓ **In mid-March 2023** Russia could refuse to renew the temporary **Black Sea agreement**

When Russia signaled it might withdraw from the deal in early November 2022, **wheat futures prices** at the Chicago Board of **Trade jumped 5.8%**. Once the deal was renewed for 120 days, futures prices **fell only 2%**.

Russian weaponization of wheat disrupts world markets and food security

1. What are possible motives for weaponizing wheat?

✓ **Russia needs to finance the conflict in Ukraine**



Estimates vary but they are all in the range of tens of billions of US dollars. Taxes collected on the exports of billions of dollars of wheat help **Russia** to finance the invasion of Ukraine at a time when other revenues are at risk.



The mere threat of blocking **Ukraine's** exports reduces the incomes of Ukrainian farmers, with knock-on effects for Kyiv's government revenues and, therefore, its capacity to finance its military campaign.

✓ **Why Russia would not benefit commercially from blocking all Ukrainian shipments through the Black Sea?**

The reason is that wheat growers elsewhere strongly respond to the upward pressure on world wheat prices once the reduction in Ukrainian shipments goes beyond 45%.

A reduction of Ukrainian shipments **by 70%** induces a strong response from other wheat exporters; total supplies to the world market are about the same as in the absence of interference in the Black Sea. A further disruption of Ukrainian shipments **by more than 70%** triggers more than proportional export expansions from competing wheat suppliers because of a strong wheat price increase. In other words, **a complete ban** of Ukrainian exports through the Black Sea would invite Russia's competitors in the global wheat market to expand supplies, and a partial ban of say half of Ukraine's exports does not help Russian exports much.

✓ **As Moscow scrambles to finance its military onslaught on Ukraine, the temptation to weaponize wheat exports grows**

Russia's current acquiescence to the Black Sea deal should not blind us to the reality that Moscow can manipulate the world wheat market by weaponizing its own exports. From a decade of experience with wheat-market interventions, Russia has the tools to optimize its revenues and generate foreign currency receipts that help fund the Kremlin's expenses, including those for Russia's invasion of Ukraine. Playing soft on the Ukrainian wheat shipments through the Black Sea is a strategic choice while the Kremlin's own wheat export policy warrants more scrutiny.

2. What about competing wheat suppliers?

- ✓ During the pre-invasion 2020/21 MY Russia accounted for 19.2% of world wheat exports

In the absence of any weaponization of wheat trade, Russia will supply 20.4-22.8 % of world wheat exports next year. In contrast, the nations sanctioning Russia will see their net production rise by only 0.9% of the world total.

- ✓ If Russia keeps its additional wheat production off world markets in 2023, **Western wheat cannot easily replace it**
- ✓ Factors beyond Russia's control - the size of wheat harvests around the world

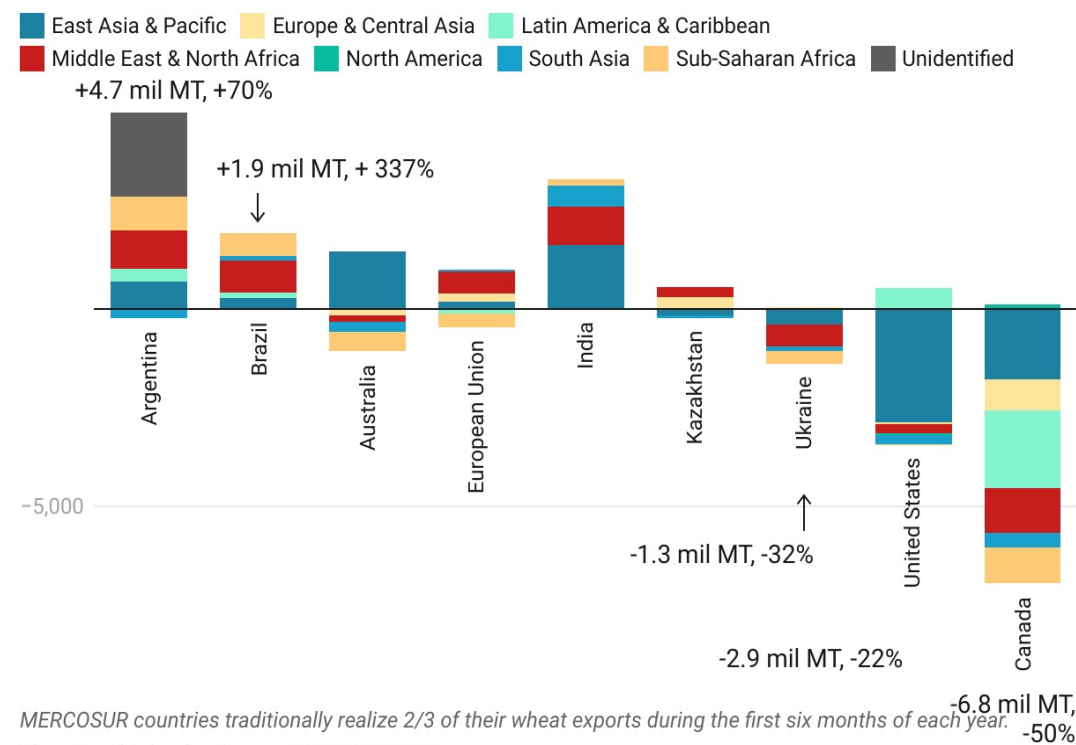
But during the first half of 2022 Argentina and Brazil were able to expand their wheat exports by 6.6 million tons.

- ✓ The fact that wheat prices did not spiral out of control in the past year **may be more due to good luck than to good policy**
- ✓ A larger harvest next year **strengthens Russia's leverage over world wheat markets**

Russia's influence on world wheat prices is greater if it hikes export taxes than if it refuses to extend the Black Sea deal. Several developing countries with large populations are at risk should Moscow weaponize exports and contingent financing to help could be lined up now. Russian wheat producers will also be victims of weaponization, diminishing their incentive to plant in future seasons.

Change in wheat exports by exporter, January - June, 2022 versus 2021

Unit: 1000 metric tons, Period: January to June. Breakdown by importer.



MERCOSUR countries traditionally realize 2/3 of their wheat exports during the first six months of each year. Chart: David Laborde • Source: COMTRADE, TDM



3. What's at stake?

Households in countries with lower per-capita income consume considerably larger shares of cereals in their daily energy intake and relatively small proportions of protein, compared to those in higher-income countries. Consumers of wheat in lower per-capita income nations are therefore especially vulnerable.

Moreover, there are downside risks in the USDA forecasts and wheat production shortfalls may worsen further.

- ✓ Given wheat production forecasts, **no matter how much Ukrainian wheat Russia allows to pass through the Black Sea**, 2.5 million tons more wheat will be on world markets than before the conflict began. This limits the resulting wheat price hikes during 2023. Even a near-complete Black Sea transport ban on Ukrainian wheat **would raise the median importer's wheat price by 4.2%**. But sourcing patterns are such that **wheat prices in the Philippines, Indonesia and Tunisia, for instance, would rise by more than 27%**.
- ✓ **If Russia putatively raises export taxes** high enough to cut its wheat exports by one-quarter, and farmers across the two hemispheres respond to the intervention within the year, **then world wheat imports will drop** by about 2 million tons in total because competing exporters can only partially replace the lost Russian wheat exports. Under this scenario the median **importing nation pays 5.2% more for wheat**. The Kremlin's export tax collection amounts to 29.7% of the Russian wheat industry's value added in the absence of export restrictions.
- ✓ **If Russia goes further and raises export taxes so as to cut its wheat exports in half**, then total wheat imports fall by 3.4 million tons and **the median importer pays 9% more for wheat than before the conflict**. **Bangladesh and Nigeria** now face above-median wheat price increases of around **14%** and **11%**, while the Kremlin collects 55.6% of the Russian wheat industry's value added in tax revenues.

Costs and Benefits of a Wheat Export Tax Regime

Russian Wheat Exports Cut by One-Quarter



Russian Wheat Exports Cut by One-Half



Africa Needs Up to \$65 Billion in Loans Every Year to Curb Food Imports

- ✓ The continent **imports** over 100 million metric tons of cereals at an annual cost of **\$75 billion**
- ✓ **War in Ukraine** has exposed **weaknesses** in continent's economies

Russia's invasion of Ukraine triggered a shortage of at least 30 million ton of food across Africa, especially wheat, maize, and soybeans. The war sent wheat prices soaring by more than 40% in some countries while fertilizer costs in most African nations jumped three to four times from 2020 levels, resulting in a 2 million-ton supply gap.

Africa's food and agriculture market could increase from \$280 billion a year to \$1 trillion by 2030. Achieving this target will require significant new investments and the removal of barriers to agricultural development.

Dakar 2 Summit: it is time for Africa to feed Africa

- ✓ **A key moment in Africa's ability to feed itself and achieve food self-sufficiency and food sovereignty**

The second Africa food summit in Senegal ended on Friday, with development partners agreeing to commit \$30 billion to back the continent's resolve to boost agricultural productivity and become a breadbasket for the world. Among the development partners are the African Development Bank which plans to contribute \$10 billion over five years, and the Islamic Development Bank, which intends to provide \$5 billion.

In the Dakar Declaration, the leaders agreed to allocate at least 10% of public expenditure to increase funding for agriculture. They also resolved to deploy robust production packages to boost productivity and increase resilience to achieve food security and self-sufficiency.

Netherlands Director-General for International Cooperation Kitty Van Den Heijden announced that her country would commit an additional €450 million over the next five years to food security programs with a focus on Sub-Saharan Africa. She said the country would also support the African Emergency Food Production Facility of the African Development Bank with \$30 million.

The president of the Islamic Development Bank, Dr. Muhammad Al Jasser, delivered a statement pledging continued support to boost food production in Africa. Canada and Germany also made commitments to support the Feed Africa agenda.



Part III

European Union-Ukraine Cooperation

War impact on Ukrainian agribusiness

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The growth of Ukraine's exports to the EU became possible thanks to:

- ✓ **Measures to support the Ukrainian economy in general and exports in particular:**
 - tax liberalization;
 - deregulation;
 - support for producers;
 - export insurance;
- ✓ **Measures taken by importing countries unilaterally or jointly with Ukraine:**
 - the opening of European markets for Ukrainian goods (temporary, one-year trade liberalization, economic "visa-free");
 - the EU initiative "Solidarity lanes";
 - "customs visa-free";
 - "transport visa-free", etc.

Despite the war Ukraine is still:

- ✓ A guarantor of the world's food security
- ✓ Among TOP-5 global agricultural exporters

But possible only if farmers can maintain revenues above cost of production and can rely on possibility to sell crop for export

Special thanks to the European Commission which just extended the duty/quota-free treatment of Ukrainian cereal exports to the EU

After a Hot and Dry Summer, Eastern EU Nations Ask for Help as Western EU Member States benefit from Domestic Subsidies, and Ukrainian Grain Floods Nearby Markets

Six east European nations led by Poland [called](#) for measures including compensation for farmers at a meeting of the bloc's agriculture ministers. They also requested transit routes should be sealed off so that Ukrainian grain and other products can reach third countries without causing disruptions in Europe.

- ✓ **Corn imports from Ukraine to Poland rose to 1.6 mln t** between January and November last year, a **more than 25,000% increase** from the corresponding period of 2021, according to a document the countries shared with other states at the ministerial meeting in Brussels.
- ✓ **Imports to Hungary jumped to more than 900 kt from 5 kt** while those to **Bulgaria reached 17 kt from 0.4 kt**.
- ✓ The large imports of products from one source during the national harvests **have caused market disturbances in all member states involved**.
- ✓ Part of the **imported grain goes to the domestic feed processors** which results in the decreased demand for domestic grain.



"We are ready to further help Ukraine, there is no turning back. But we want the entire EU involved in dealing with the issue"

*Poland's agriculture minister
Henryk Kowalczyk*

Cost of production

Autumn planting campaign

Spring planting campaign

2021/22 FACT

Costs (\$/ha)	Wheat	Corn	Sunflower	Soybean
Salary	25	22	14	16
Seed	99	95	57	62
Fertilizers	289	250	194	69
Plant protection products	52	45	74	136
Fuel	53	80	68	67
Amortization	116	187	185	206
Drying	29	264	4	29
Rent of land	170	170	170	170
Other	183	183	183	183
TOTAL	1,015	1,297	948	938

2022/23 PLAN

Costs (\$/ha)	Wheat	Corn	Sunflower	Soybean
Salary	20 (-5)	15 (-7)	14 (0)	16 (0)
Seed	99 (0)	98 (+3)	55 (-2)	62 (0)
Fertilizers	333 (+44)	201 (-50)	105 (-89)	0 (-69)
Plant protection products	119 (+67)	67 (+23)	68 (-6)	143 (+7)
Fuel	85 (+32)	92 (+12)	97 (+29)	73 (+6)
Amortization	166 (+50)	256 (+69)	282 (+97)	246 (+40)
Drying	19 (-10)	208 (-56)	10 (+5)	15 (-14)
Rent of land	145 (-24)	145 (-24)	145 (-24)	145 (-24)
Other	170 (-13)	170 (-13)	170 (-13)	170 (-13)
TOTAL	1,157 (+141)	1,253 (-44)	945 (-3)	869 (-68)

The most noticeable changes are the **reduction of land rental costs**, primarily due to the devaluation of the hryvnia.

Fuel costs increased sharply - in the spring of 2022, in addition to high prices, there were also problems with the shortage of fuel itself (Russia was actively destroying oil depots with missiles). Although the situation has improved, the problem has not disappeared and **costs for certain crops have increased by 10-40%**.

Low crop sales prices have contributed to a **reduction in fertilizer application rates** — many producers are trying to reduce direct costs of cultivation and hope for favourable weather. The exception is wheat, the yield of which is highly dependent on fertilizers, so farmers try not to cut costs.

There is a risk that due to the consequences of the war started by Russia, as well as its sabotage of exports, price prospects in Ukraine will be pessimistic, which will **force producers to apply less fertilizer, which could depress yields and crop size**.

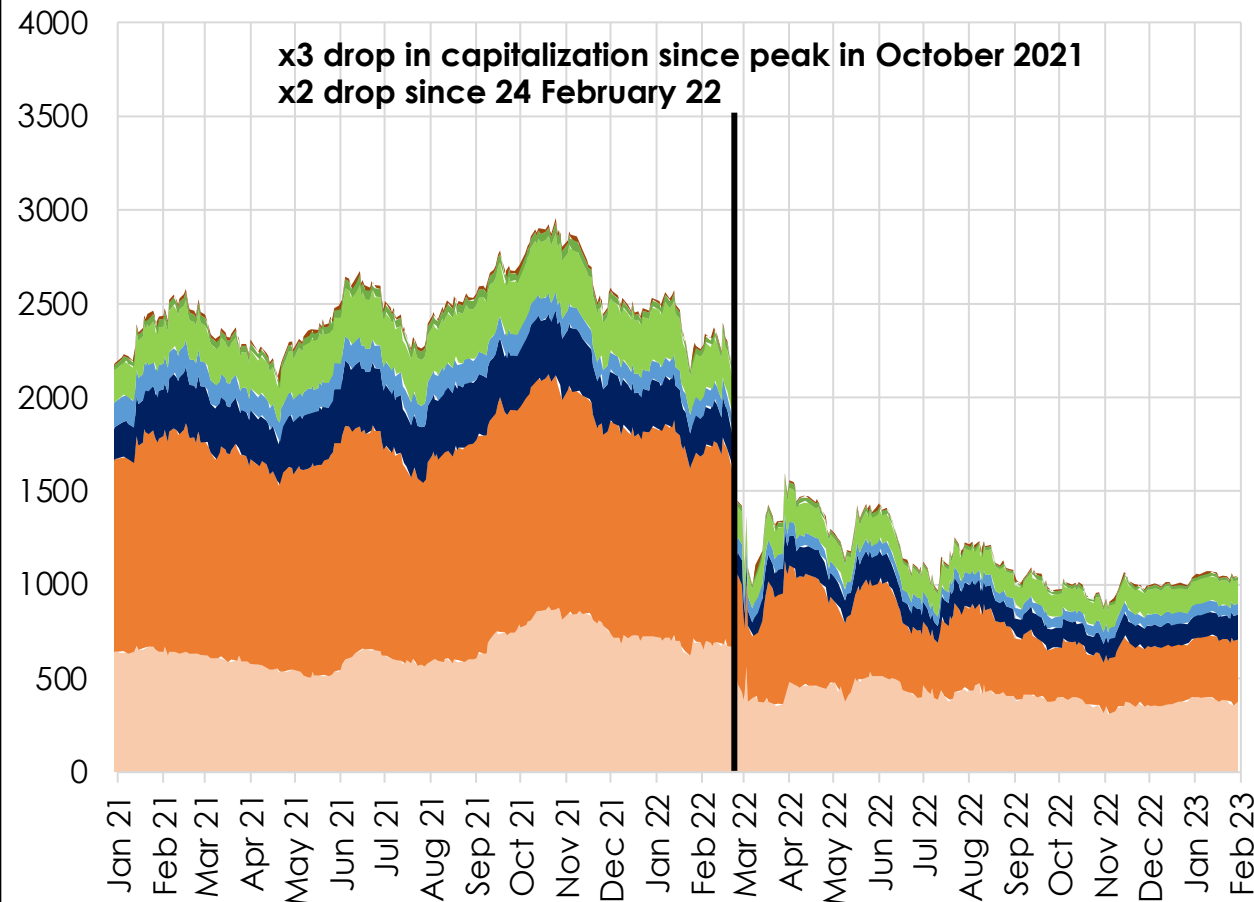
Oil crops in war conditions are more attractive than grain crops for a significant part of producers. First, it costs less per hectare (soy almost does not need fertilizers); secondly, a higher price per 1 tonne, which reduces logistics costs in %.

This is an additional risk for sown areas under cereals, primarily for corn, which will be sown this spring.

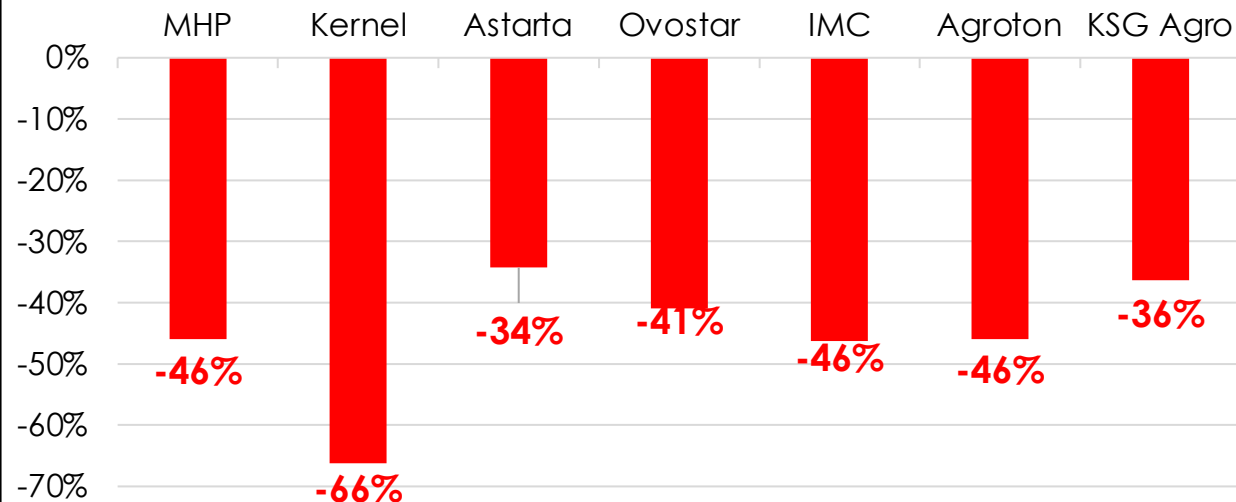
Capitalization of Ukrainian public agricompanies, mln \$

■ MHP ■ Kernel ■ Astarta ■ Ovostar ■ IMC ■ Agrotion ■ KSG Agro

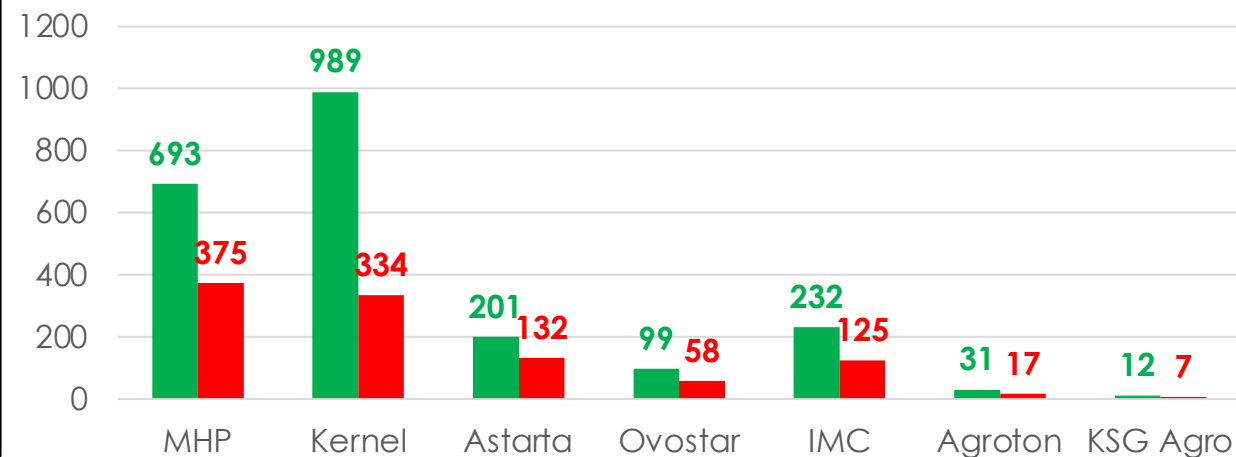
x3 drop in capitalization since peak in October 2021
x2 drop since 24 February 22



Shares price change % , YtY



■ Last year capitalization, mln. \$ ■ Current capitalization, mln. \$



Annex

Page 21	Ukrainian corn. Top African importers
Page 22	Ukrainian corn. Egypt and Libya
Page 23	Ukrainian wheat. Top African importers
Page 24	Ukrainian wheat. Egypt and Algeria
Page 25	Ukrainian wheat. Tunisia and Libya



UA EXPORTS OF **Corn** TO AFRICA from March 2022 to January 2023

1134 kt

Tunisia
172kt

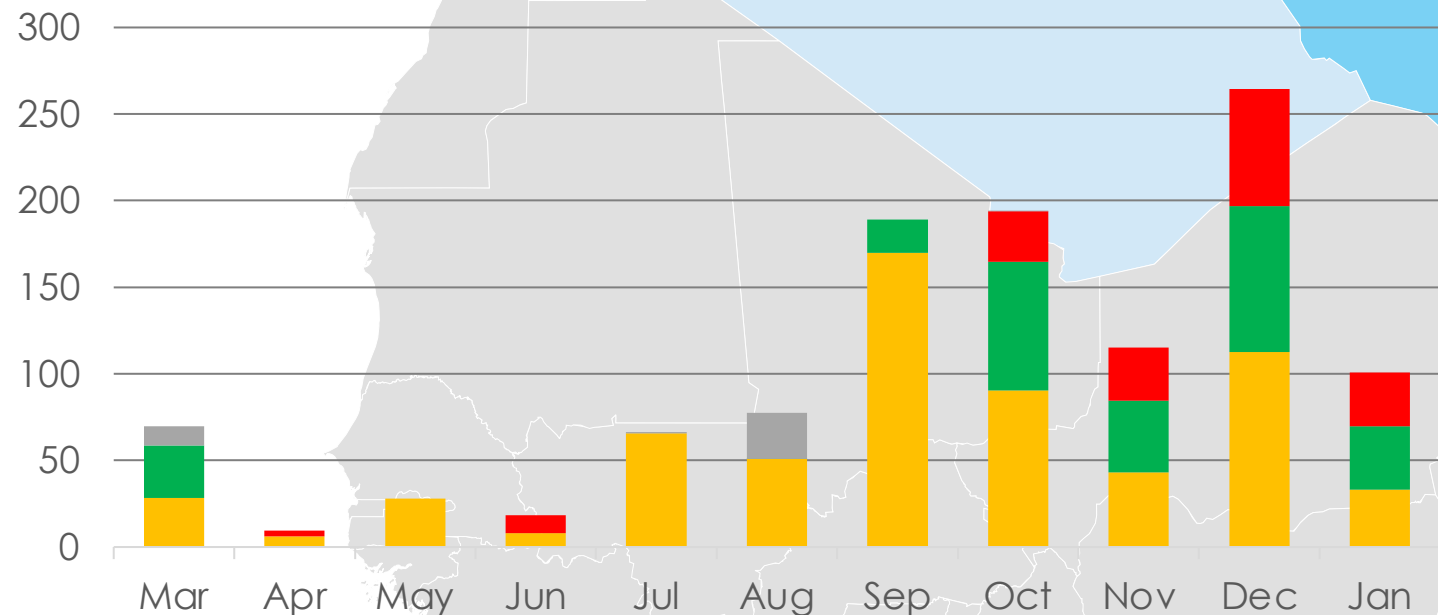
Algeria
37kt

Libya
286kt

Egypt
636kt

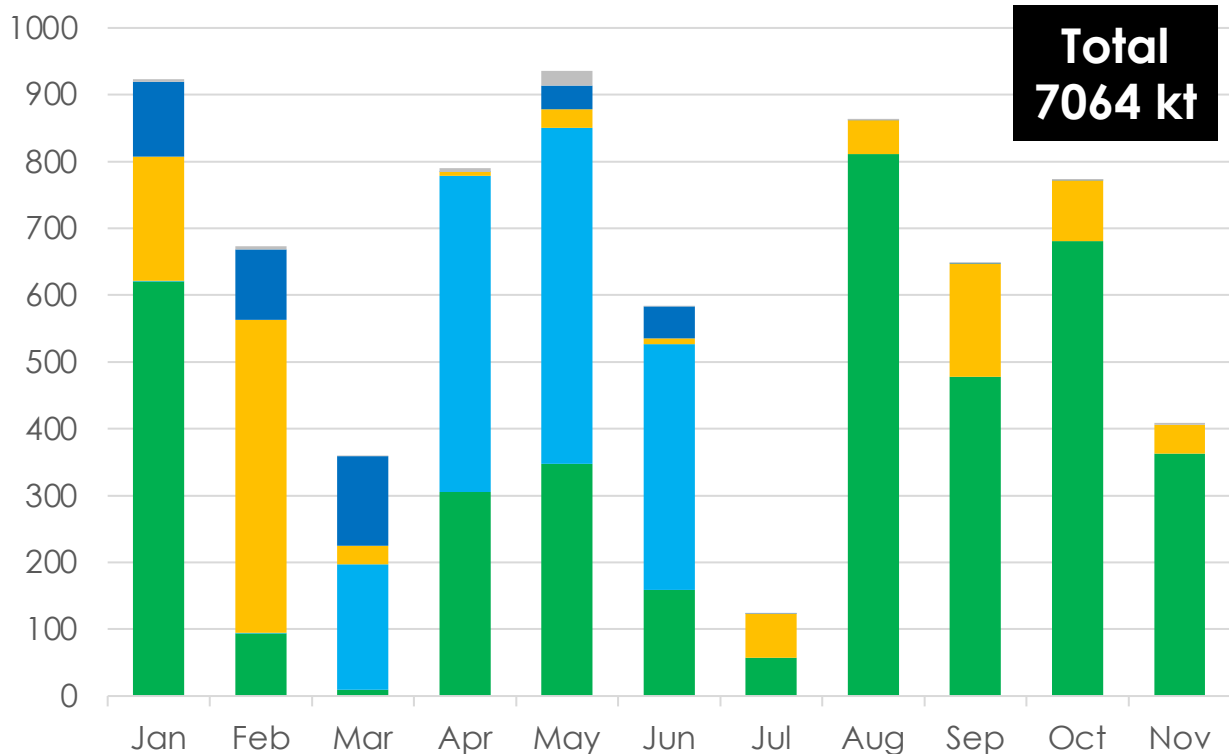
Exports of Ukrainian corn to Africa (kt)

■ Egypt ■ Libya ■ Tunisia ■ Others



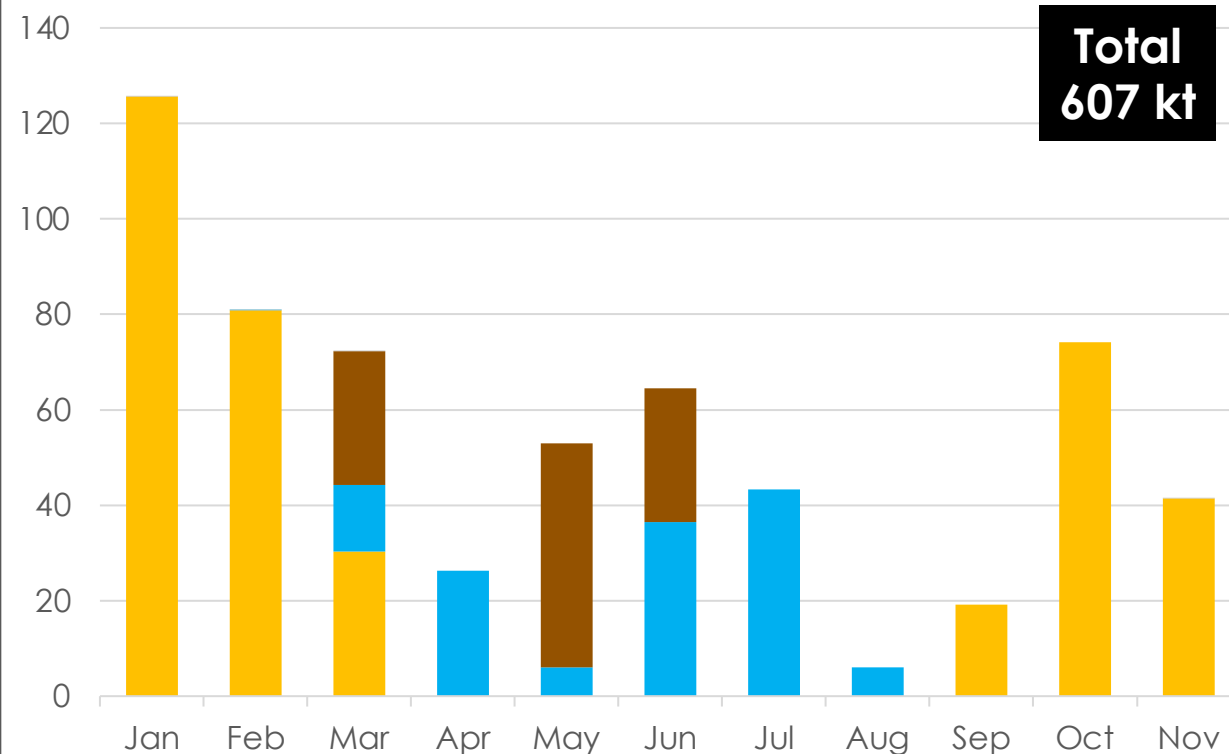
Import of corn to Egypt in 2022, kt

■ Brazil ■ Argentina ■ Ukraine ■ EU ■ Others



Import of corn to Libya in 2022, kt

■ Ukraine ■ EU ■ Russia ■ Others



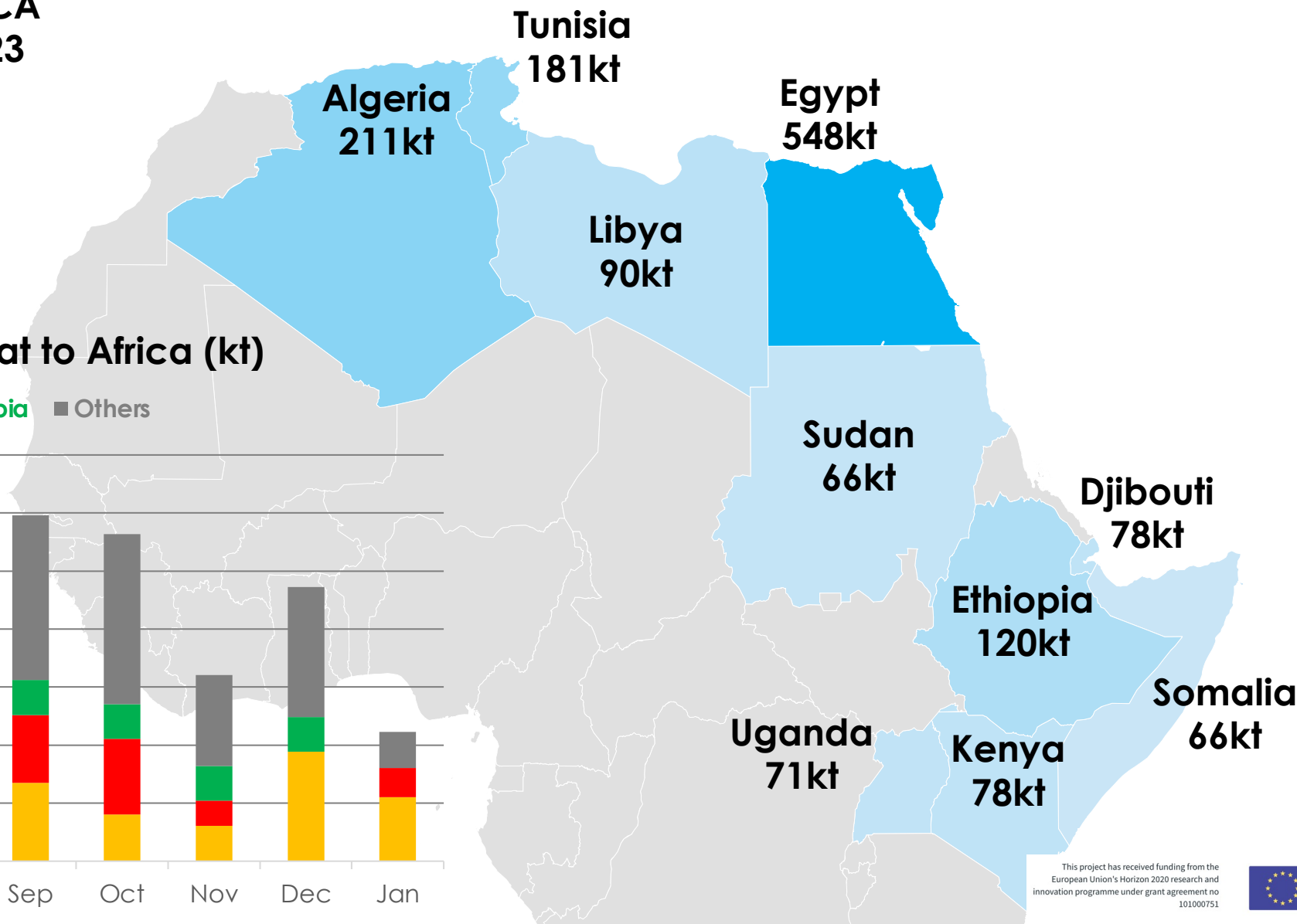
In Spring 2022, EU and Argentina actively exporting corn to Northern Africa. But now EU harvested a small crop (54 vs 71 mln t year ago) and it's actively importing from Ukraine and Brazil. In Argentina is also expected a smaller crop due to drought, planting delaying and high temperatures. Brazilian main corn crop (safrinha) only planting, old crop are almost exported by end of January 2023. Despite the war, Ukraine continues to ensure food security for part of its traditional buyers in Libya and Tunisia. Continued sabotage of Inspections by Russia will limit Ukraine's capabilities, and this will force importers to look for other suppliers. This will be more expensive and more difficult to do, given the limited number of countries that can currently offer large volumes of corn.





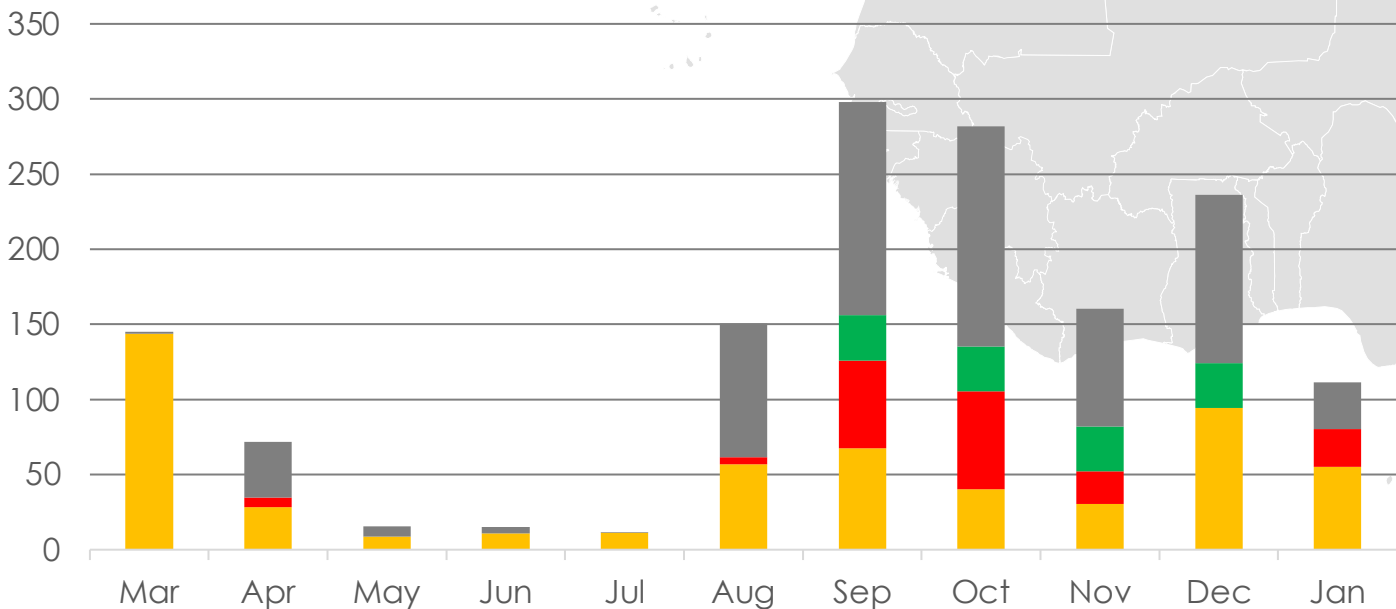
UA EXPORTS OF WHEAT TO AFRICA from March 2022 to January 2023

1497 kt



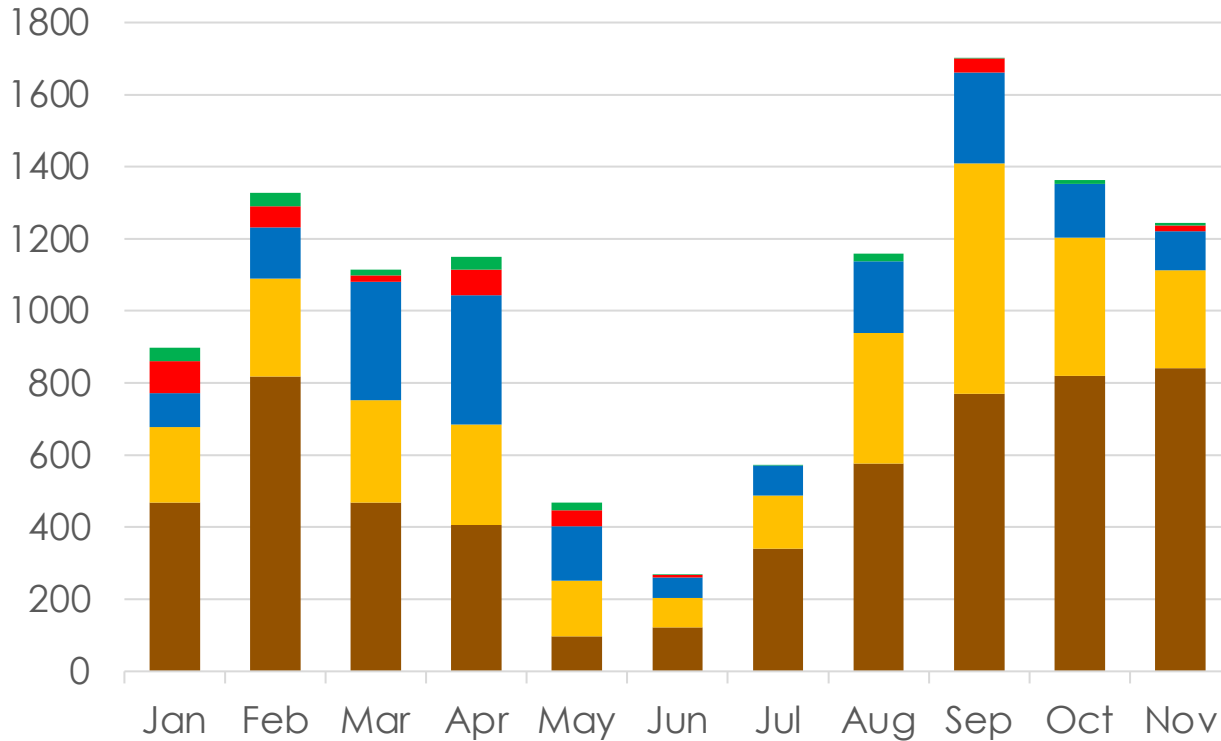
Exports of Ukrainian wheat to Africa (kt)

■ Egypt ■ Tunisia ■ Ethiopia ■ Others



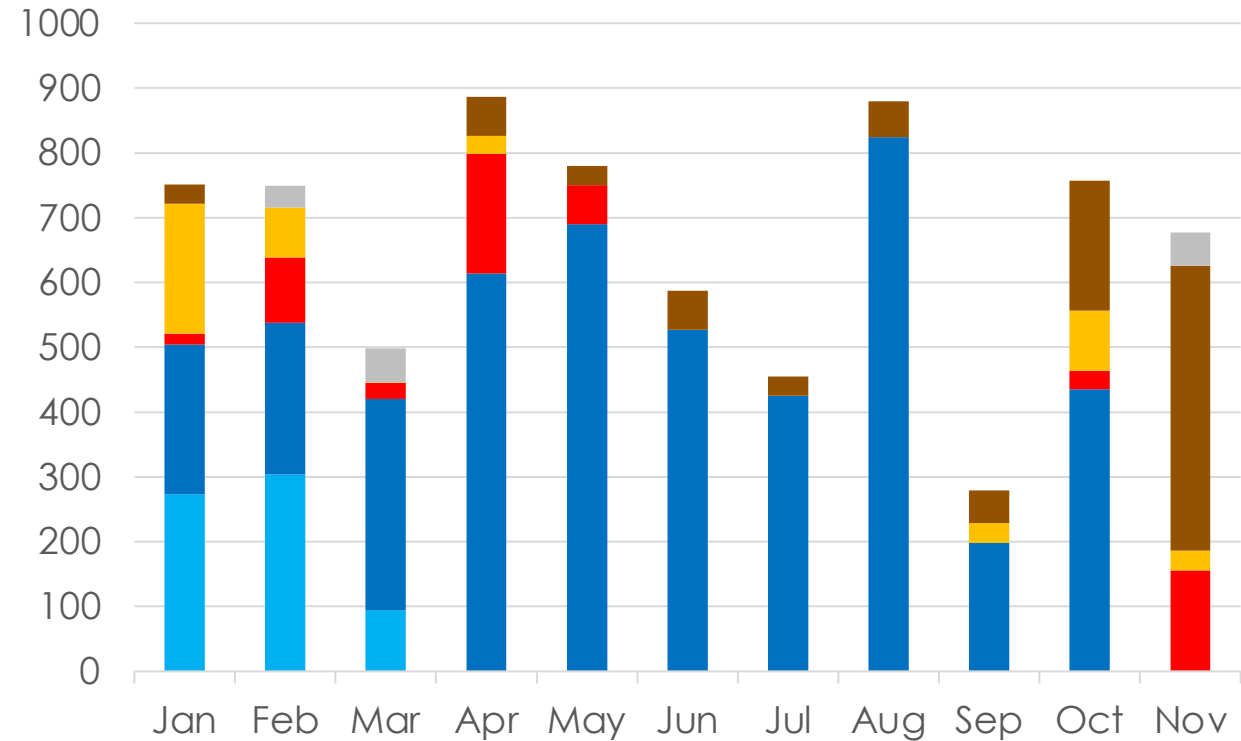
Import of wheat to Egypt in 2022, kt

■ Russia ■ Ukraine ■ EU ■ USA ■ Australia



Import of wheat to Algeria in 2022, kt

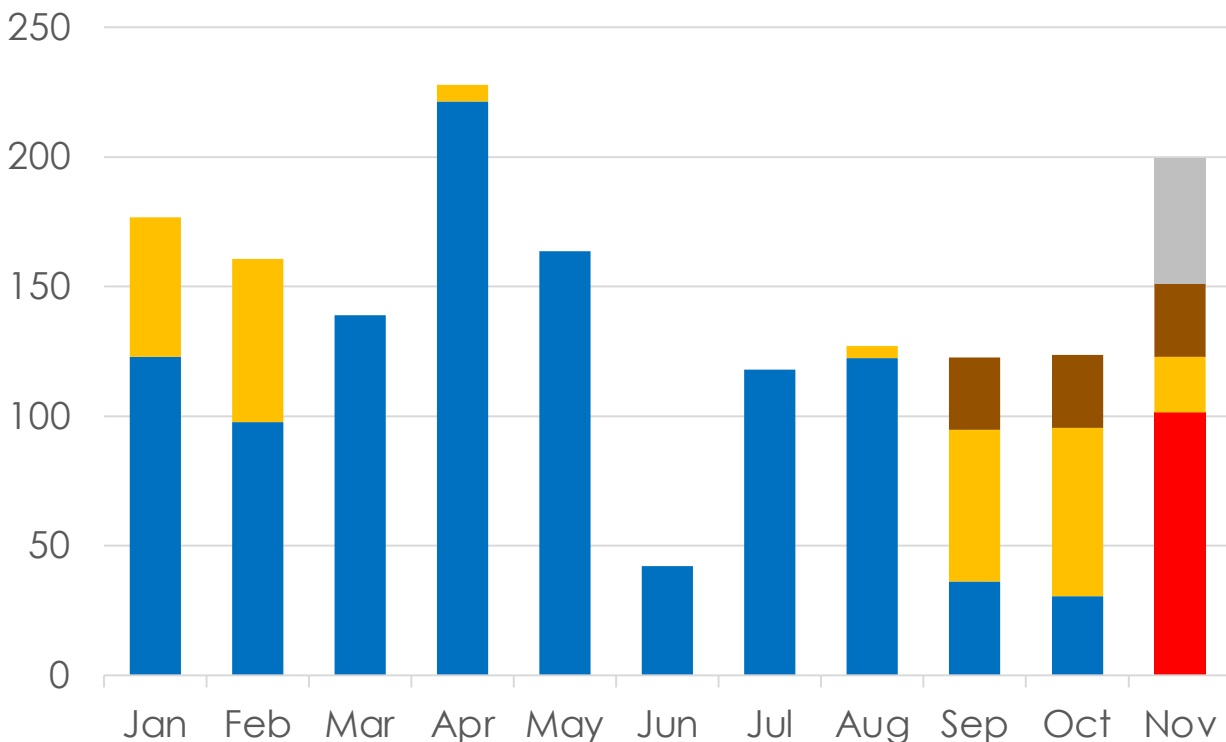
■ Argentina ■ EU ■ Canada ■ Ukraine ■ Russia ■ Others



Despite all the attempts of Russia, Ukraine remains one of the key suppliers of wheat to African countries. Even to Egypt, despite missing the key months for wheat export (July-August), Ukraine was able to deliver more than 3 mln t of wheat.

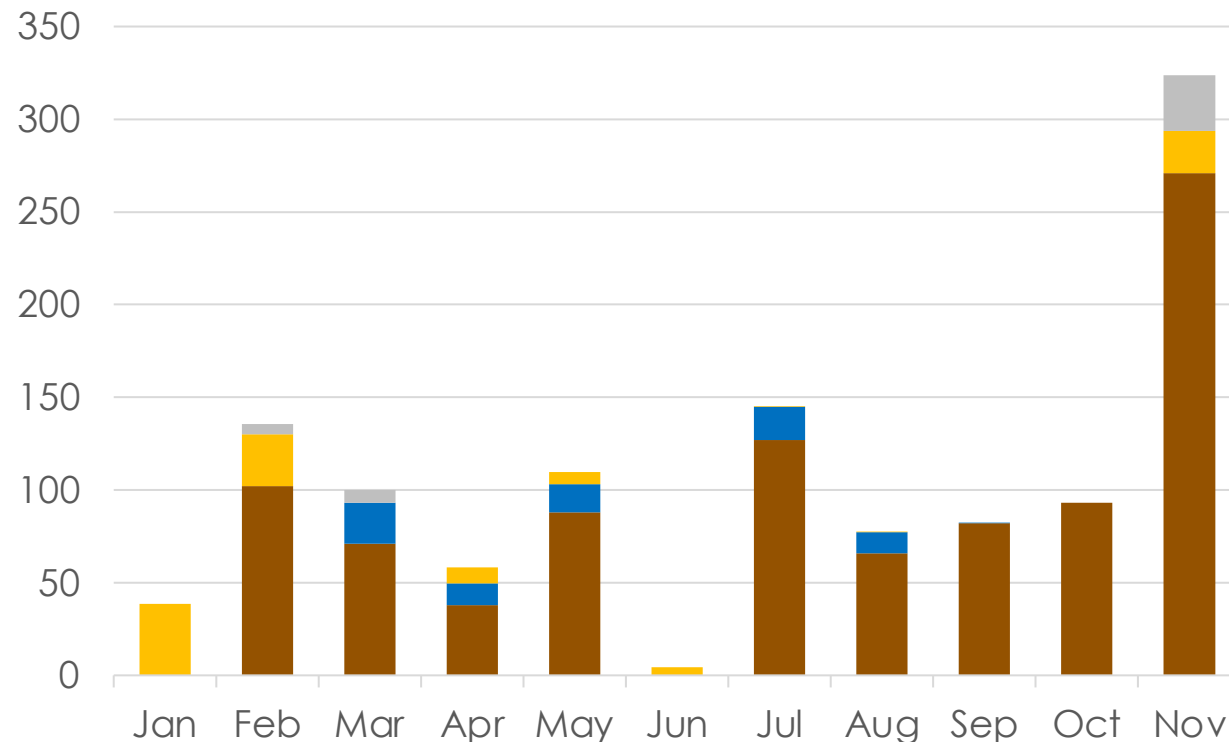
Import of wheat to Tunisia in 2022, kt

■ EU ■ Canada ■ Ukraine ■ Russia ■ Others



Import of wheat to Libya in 2022, kt

■ Russia ■ EU ■ Ukraine ■ Others



With the restoration of the ability to export by sea, Ukraine has regained its position on the Tunisian market. In previous years, Libya primarily depended on supplies of mainly Ukrainian and Russian wheat. In 2022, with the start of the war in Ukraine, demand almost completely switched to Russian wheat. After an active November, according to preliminary data, Libya imported less than 140 kt of Russian wheat in December-January. The country is 90% dependent on wheat and barley imports and experienced a "bread crisis" in 2018. So, most likely, she will be forced to buy any grain in order to prevent the situation from repeating.