

Report Number: UP2023-0009

Report Category: Livestock and Products

Approved By: Laura Geller

After a major decrease in 2022, Ukraine's cattle and swine population is expected to decline further in 2023. Although some war-related factors have already had their negative impact, the refugee crisis, disposable income drops, and a weakened economy are expected to depress livestock sector development further. Decreased pork production will keep pork imports at a record-high level in 2023. Insufficient domestic demand for expensive beef supports the export of live animals and beef, despite decreased production. Ukrainians will continue to rely on inexpensive, domestically produced, and imported poultry as the major animal protein consumed. The 2023 livestock and slaughter numbers are expected to reach all-time lows.

Executive Summary:

Russia's unjustified invasion of Ukraine on February 24th, 2022, significantly negatively impacted Ukraine's livestock sector. As a result, the cattle and swine population drop for 2022 exceeded 10 percent. It is also expected to continue in 2023. Most losses were caused by war-related economic factors, although several Ukrainian farms suffered from direct warfare damage.

Initial war shocks resulted in logistical problems preventing regular input supplies and delivery of meat to domestic consumers and exporters. The cattle population happened to be more vulnerable to war shocks. Ukraine's meat production is a function of the dairy industry, which heavily relies on uninterrupted milk sales and input supplies. A larger share of Ukrainian cattle was situated in the north and northeastern regions that suffered from Russia's aggression the most. Due to the much longer reproduction cycle, the red meat industry's partial recovery took many months. The limited recovery of red meat production took eight months or longer, and the animal number has not exhibited signs of recovery and is expected to decline in the near future.

The major refugee crisis that followed at the onset of the war resulted in a large number of internally displaced persons, immigration, and a purchasing power drop. This way, in addition to the war-caused production crisis, the industry simultaneously faced the domestic demand squeeze. The demand drop for the expensive beef products was significant, forcing Ukrainian producers to resume live animal and beef exports despite the major production drop. The pork market situation differed. Ukrainian domestic producers were unable to satisfy the domestic demand in the pre-war years, so consumers relied on pork imports. The war-related production drop far exceeded the war-related demand drop, boosting it to all-time highs. Pork imports are expected to remain strong in 2023.

Russia's attacks on Ukraine's civilian energy generation and logistics infrastructure started in the fall of 2022 but have had a limited impact on the livestock sector. Most Ukrainian producers switched to backup power generators. However, electricity outages resulted in an increase in the cost of production. Ukraine's limited grain export abilities resulted in a significant drop in the cost of feed, which somewhat compensated for other negative factors.

Red meat production was unable to benefit from the free-trade regime imposed by Ukraine's major trading partners (the EU, Canada, and Great Britain). The lack of approved slaughter facilities and animal disease status were the major limiting factors. As of early 2023, African Swine Fever (ASF) remains present in the country, but the number of registered cases remains low. Contrary to expectations, intensive warfare did not change the number of outbreaks due to decreased surveillance and detection.

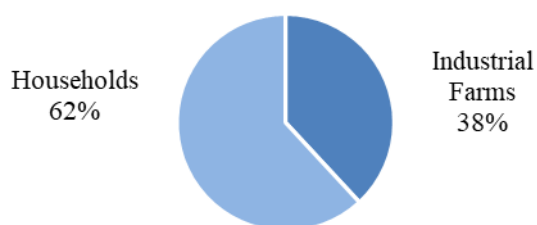
The 2023 forecast is extremely fragile and is based on the existing military status quo. The Production Supply and Distribution (PSD) tables for 2021 were updated with Ukraine's official year-end data. Ukraine stopped the publication of official production and trade numbers for the duration of the war. All numbers in this report are FAS estimates and industry-sourced data. Crimean animal inventory and meat production numbers are added to all PSD tables.

Cattle

Production

The Ukrainian livestock industry suffered from both direct and indirect losses caused by Russia's aggression that started in February 2022. The Ukrainian cattle population consists predominately of dairy and dual-purpose animals and is concentrated largely in rural households. Livestock inventory heavily depends on the dairy market situation and milk prices. The industry requires uninterrupted logistics and stable payments for milk sales. Many dairy processors, especially those situated in southern and eastern Ukraine, stopped operations cutting much-needed cash flow to Ukrainian livestock farmers and facilitating increased animal slaughter.

Figure 1. Cattle Inventory Composition in 2022

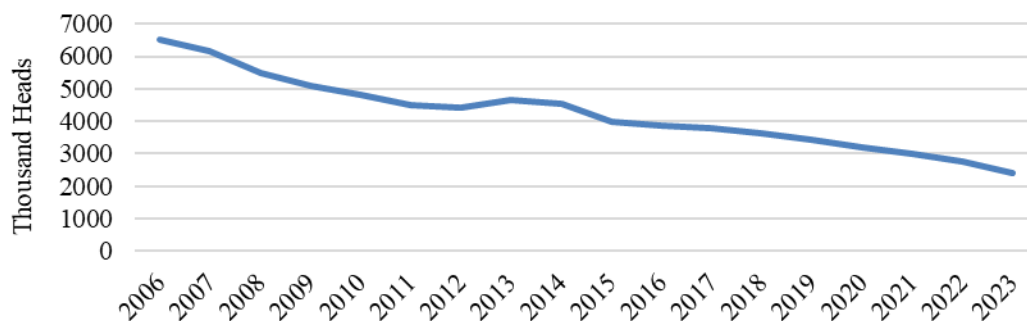


Source: State Statistics Service of Ukraine

There were a lot of war-related restrictions that changed livestock farm operation practices in the early months of the war. Curfews were introduced in most regions, impacting the operation hours of farms and imposing restrictions on truck movement. The destruction of some retail outlets and distribution centers led to a partial retail collapse, payment delays to producers, and empty supermarket shelves. Conscription into the Ukrainian army striped producers of a qualified labor force. Massive refugee outflow undermined the consumption base and further exaggerated the labor force outflow problem.

As the war progressed, many dairy processors resumed production, so farmers were able to resume milk sales and decreased unplanned slaughter. Some signs of stabilization became apparent in the summer of 2022, but industry adjustment to the new market condition continues as of 2023. Russia's missile attacks on civilian electricity supply infrastructure that started in October of 2022 resulted in multiple blackouts. Although a lot of farms were equipped with backup generators, electric outages resulted in cost increases.

Figure 2. Number of Cattle (Farms of All Types as of Jan 1st of each year)



Source: State Statistics Service of Ukraine

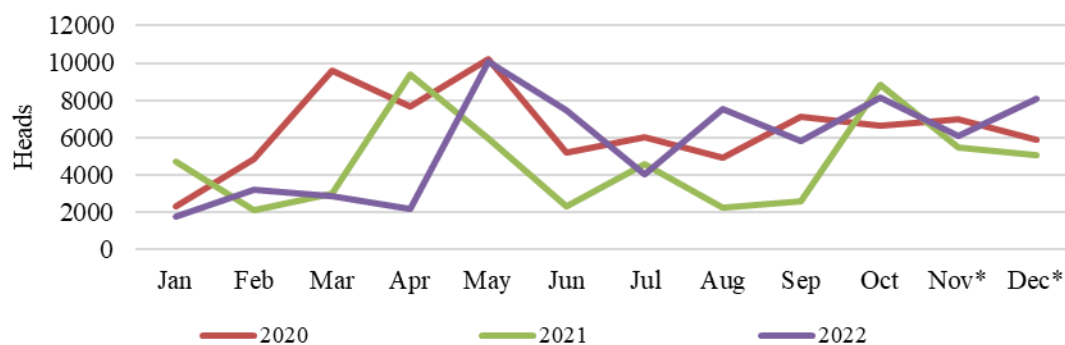
A lot of industrial farms and households situated in war-impacted areas suffered direct losses from Russia's attacks. Many had to evacuate their animals to the central region of the country or slaughter

them. Household production is potentially more resilient to external shocks as Ukraine’s low-cost production model relies on local inputs and the grazing of young animals. However, general uncertainty and economic factors resulted in a slightly bigger animals number drop in the household sector in comparison to the industrial one. Although the official animal number is not reported, the 2022 reduction in animal inventory is expected to exceed 12 percent.

Trade

In recent years Ukraine developed markets for live cattle in Former Soviet Union countries of Central Asia and North Africa. Demand for Ukrainian cattle for slaughter remained strong, and exports continued in 2022 despite the temporary export ban and blockade of major export sea routes.

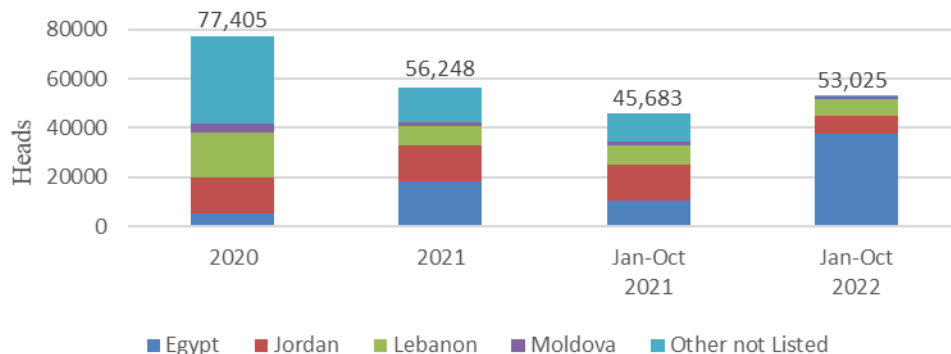
Figure 3. Ukraine's Monthly Live Cattle Exports



*Source: Trade Data Monitor, *FAS Kyiv estimates*

The live cattle export ban was very short and lasted from March 5 to April 9, 2022. The exports resumed via Danube river ports, as the transit of live cattle through the EU territory remained blocked. Ukraine negotiated live cattle transit terms with the EU on August 19, 2022, although significant transit restrictions remain in place. Ukrainian exporters were able to use the Black Sea port in Romania, which allowed for slight exports increase in the second half of 2022. Despite the major turmoil, 2022 live animals export exceeded the 2021 number.

Figure 4. Ukraine Cattle Exports



Source: Trade Data Monitor

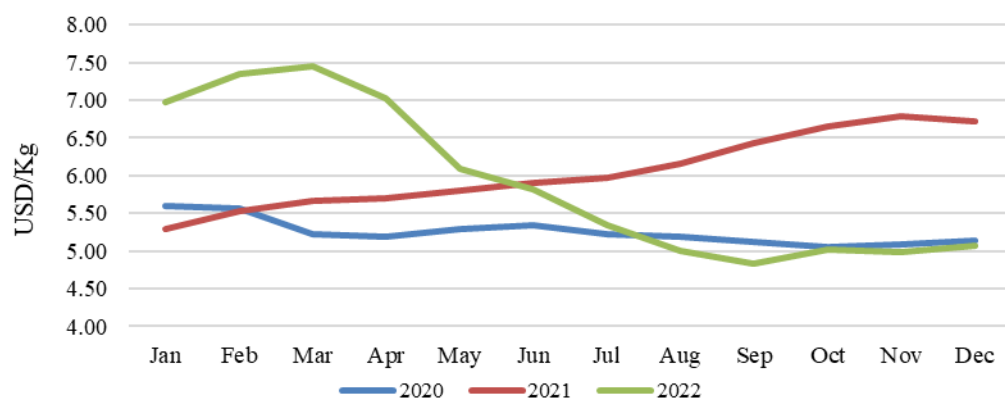
Egypt was the major export destination for Ukrainian cattle in 2022. The export of bovine animals is expected to remain strong in 2023, driven by low beef prices inside Ukraine. However, 2023 exports will reflect the reduced animal inventory and will be weaker than in 2022.

Beef

Production

Facing milk delivery problems, both industrial farms and households increased animal slaughter significantly. Most of the war-related slaughter took place in March-July of 2022 in most regions. As the access to export markets remained complicated, additional beef supplies flooded the Ukrainian domestic market, depressing prices.

Figure 5. Beef Retail Price



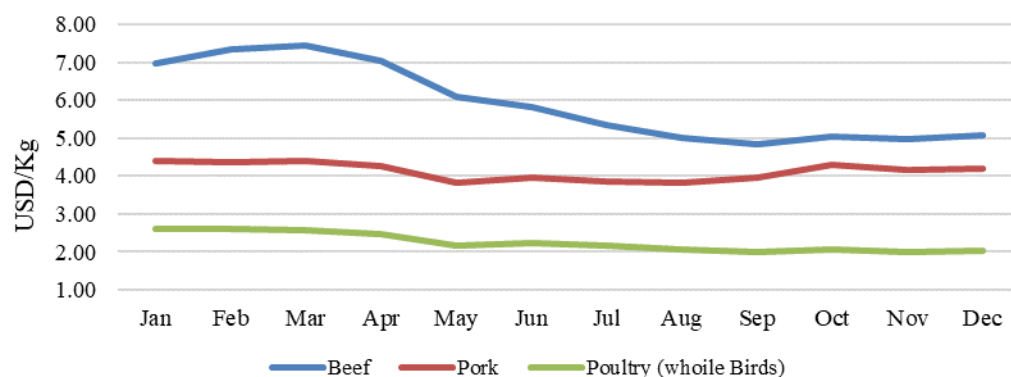
Source: State Statistics Service of Ukraine

The market reached the bottom in the late summer of 2022. Production of dairy products recovered, as many large dairy processors resumed production, so excessive slaughter stopped. Less efficient private households sustained more substantial animal losses. Although beef production decreased marginally in 2022, animal inventory loss was significant. Because of this, beef production in 2023 is expected to dive deeply.

Consumption

Significant bovine animals slaughter and lower beef prices supported domestic beef consumption in 2022. As a result, beef remained the most expensive protein but suffered the most significant price drop. Beef consumption decreased insignificantly in 2022 but is expected to drop even further in 2023.

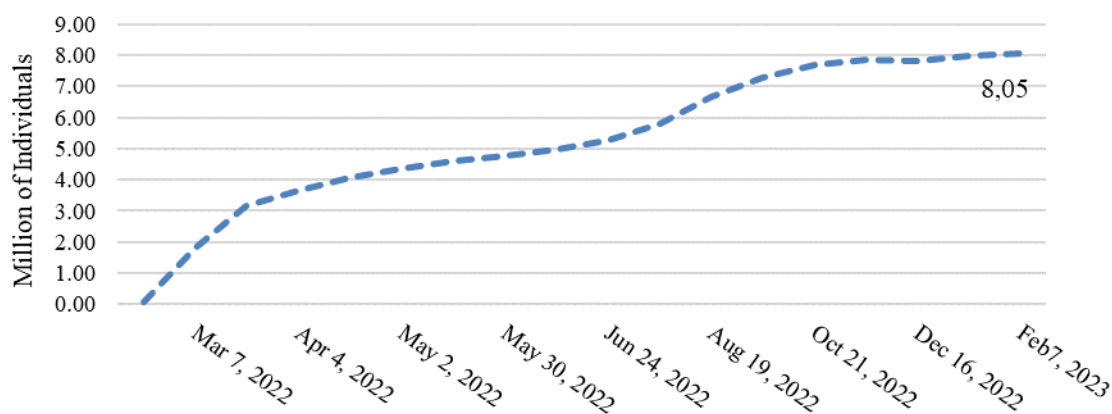
Figure 6. Ukraine's Beef, Pork, and Poultry Domestic Price in 2022



Source: State Statistics Service of Ukraine

There were several factors contributing to the decrease in red meat consumption, but the major one was the abrupt population decrease. Ukraine's pre-war statistics declared a population of 41.13 million. According to United Nations Refugee Agency (UNHCR), the country lost almost 20 percent of its population due to refugee migration to Europe. An unidentified number of Ukrainian citizens moved or were forcibly relocated to Russia. The decrease leveled by 2023, so its impact on 2023 consumption will not be significant.

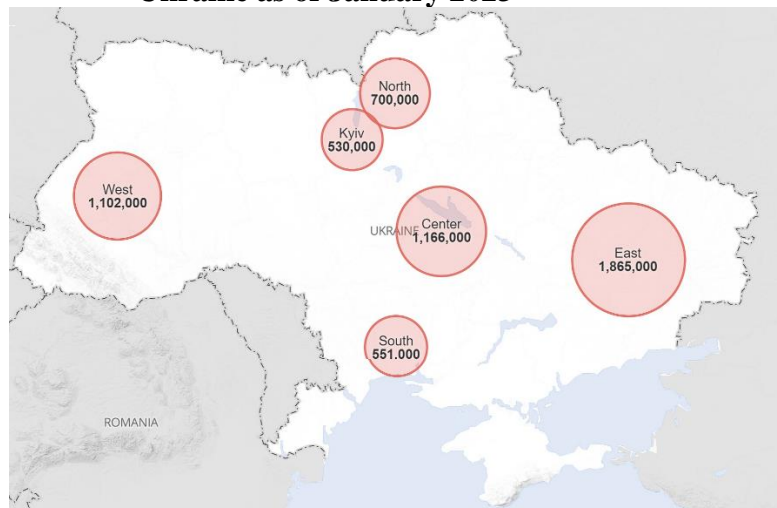
Figure 7. Number of Refugees from Ukraine Recorded Across Europe



Source: UN Refugee Agency (<https://data.unhcr.org/>)

Many Ukrainians lost their homes in northern, eastern, and southern Ukraine. The number of internally displaced persons has reached 5.9 million as of the end of January 2023, but this number is also leveling. Most relocated people lost their jobs, their incomes dropped, and their red meat (especially expensive beef) consumption decreased as a result.

Figure 8. Number of Internally Displaced Persons in Ukraine as of January 2023

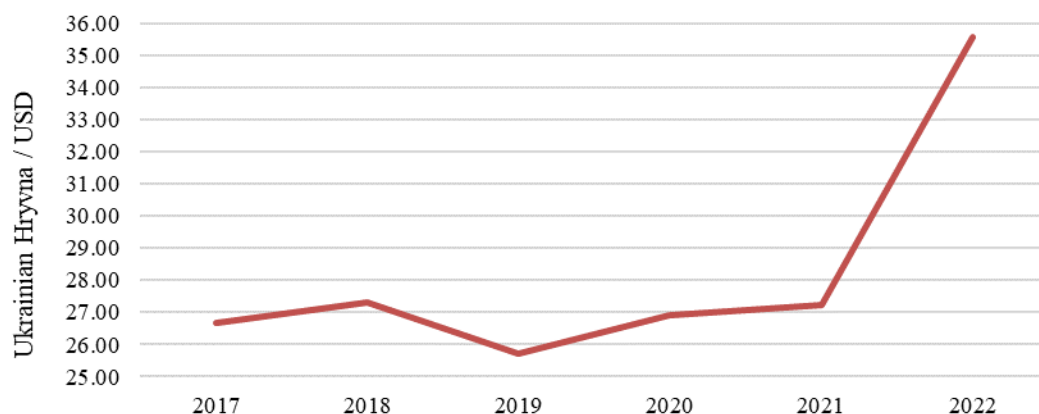


Source: UN Refugee Agency (<https://data.unhcr.org/>)

Ukraine's economy is expected to contract by 30 percent in 2022 (preliminary data from the Government of Ukraine), while consumer inflation exceeded 26 percent. Nevertheless, Ukraine remains an open economy as most of the trade restrictions introduced after the war began are removed.

Ukrainian consumers compete with the rest of the world and face relatively higher beef prices due to shrunken incomes.

Figure 9. Ukraine's Currency Exchange Rate



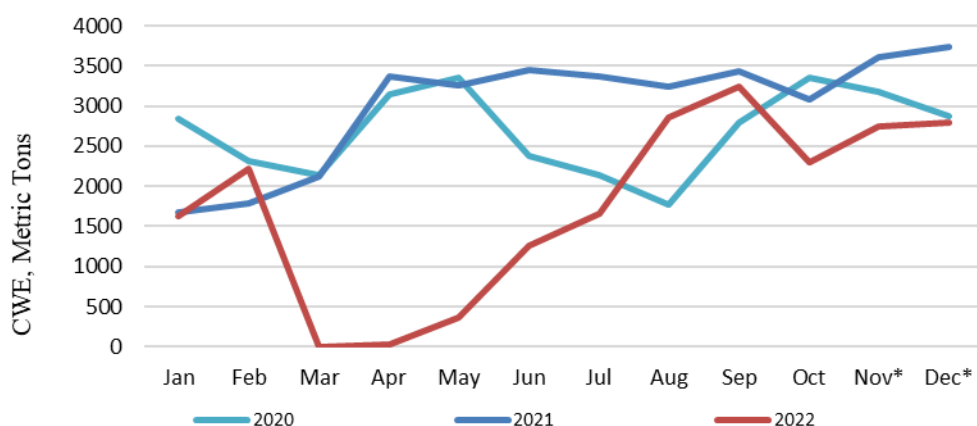
Source: National Bank of Ukraine, FAS Kyiv calculations based on Interbank Currency Exchange Data

Ukrainian hryvnia-denominated disposable incomes dropped significantly following a notable hryvnia depreciation. As of early 2023, the market exchange rate exceeded 40 UAH/USD but remains stable. Therefore, the hryvnia devaluation impact on consumption is expected to be less depressing in 2023.

Trade: Exports

Almost immediately after the war started, the Government of Ukraine stopped all exports of critically important food products, including beef. The ban lasted from March 5 to April 9 and was lifted after market reassessment and industry outcry. The export ban was replaced with export licensing in early April, which allowed for limited export recovery only in May-June of 2022, when licensing procedures started to work. Industry sources reported this export licensing as non-binding in 2022, but the situation changed in January 2023. Exporters were unable to resume trade due to technical problems with licensing. In February, the licensing started to work, but license request review terms remained significant, limiting exports severely.

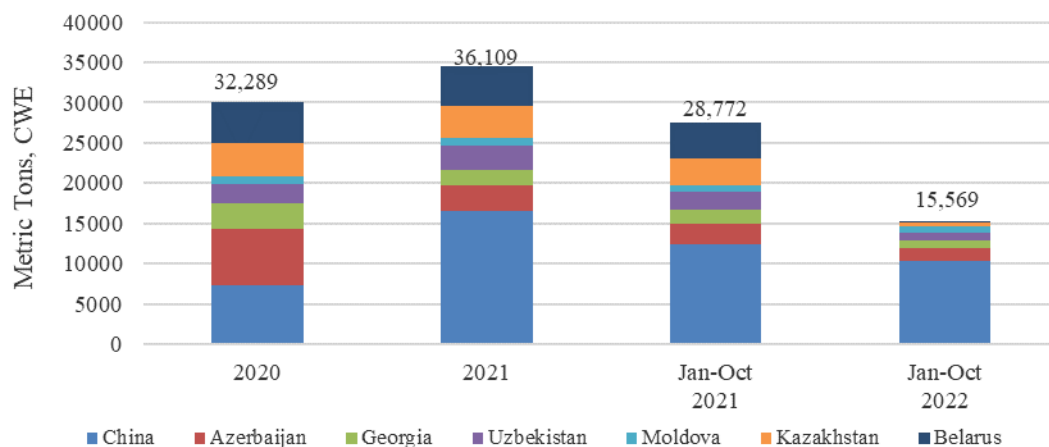
Figure 10. Ukraine's Monthly Beef Exports



Source: Trade Data Monitor, FAS Kyiv estimates

Upon resolution of the export licensing issue, the beef trade is expected to remain strong in 2023. However, domestic demand remains weak, and many processors see better sales opportunities abroad.

Figure 11. Ukraine's Beef Exports

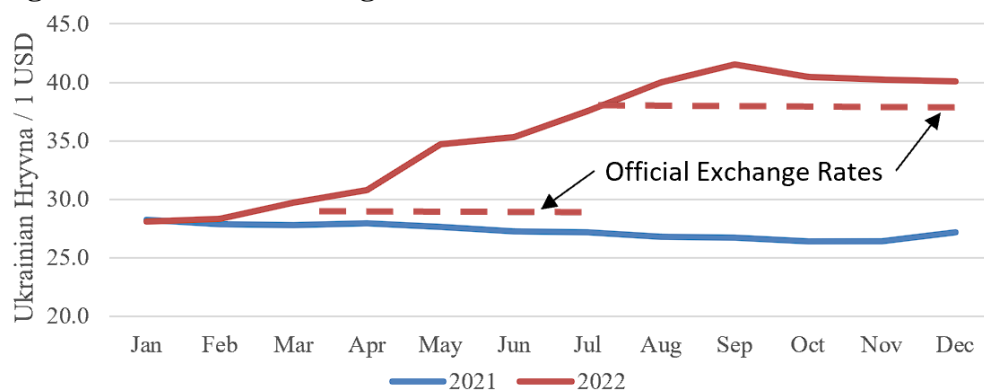


Source: Trade Data Monitor

In the past, Ukraine developed export markets in Former Soviet Union countries of Central Asia, Moldova, and recently, China. Over time the share of the Chinese market increased greatly, and it became the major export destination in 2022. Due to war-related logistics problems, supplies to Central Asian countries became problematic, if even possible.

All Ukrainian exports remain depressed due to the exchange rate disadvantages. Ukraine's official exchange rate differs from the market exchange rate, and exporters sell foreign currency at a lower rate. The National Bank of Ukraine is trying to minimize market distortions, so the official exchange rate increased from 29.3 to 36.6 in July of 2022.

Figure 12. Market Exchange Rate and National Bank of Ukraine Official Exchange Rates



Source: The National Bank of Ukraine

After the war started, the border with the EU became the only available export route for Ukrainian beef. Ukraine negotiated special transshipment rules through Romania (with consequent export through a designated Romanian seaport) in mid-May of 2022.

Imports

Ukraine imports premium-quality beef from the EU and the United States. Transshipments of U.S. beef through EU territory limit imports to EU-approved establishments. Combined with complicated logistics, this increases the cost of premium beef significantly. The number of high-end restaurants serving U.S. beef during the war has been reduced greatly, but Post is aware of at least two commercial shipments of U.S. beef imported after the war started. Some U.S. beef has been brought to Ukraine as humanitarian assistance, as well.

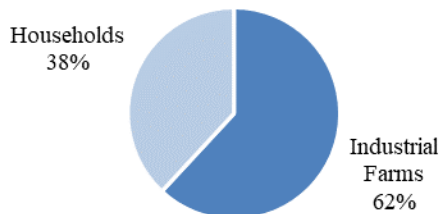
Swine

Production

Ukrainian swine inventories declined for several years following industry restructuring from household to industrial production and the market exit of inefficient producers. Animal inventory declined further after the war started in February of 2022. The industry suffered from the same war-related challenges as the rest of Ukrainian agriculture. Regional curfews impacted farms and slaughterhouse operations, limiting truck movements. The logistical collapse of the early days of the war resulted in farms' inability to procure inputs or sell pigs. A retail crisis led to empty supermarket shells and payment delays.

Conscription to the army and refugees outflow stripped Ukrainian pig farmers and meat packers of the qualified labor force. All macroeconomic production factors outlined in the Cattle Production section of the report are equally applicable to swine production. However, swine production was less dependent on daily cash flow that was critical for the Ukrainian dairy industry. This way, Ukrainian swine producers were not forced to cull a very large number of animals in the early months of the war.

Figure 13. Swine Inventory Composition in 2023

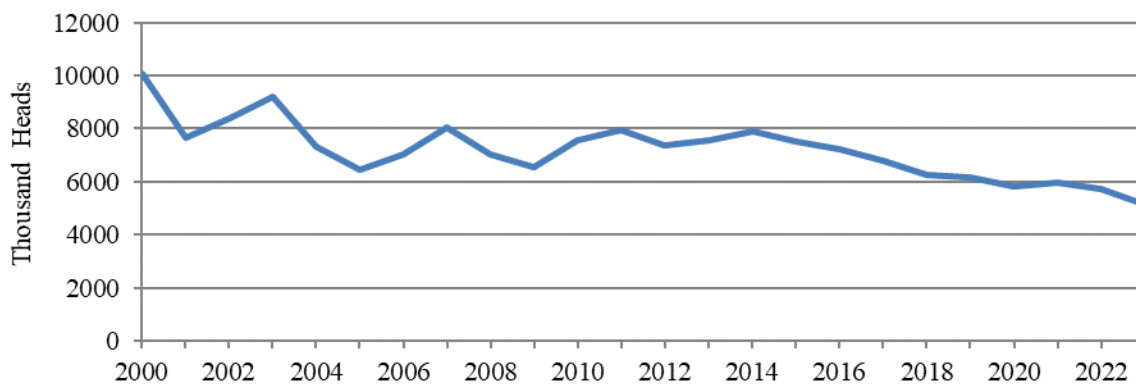


Source: State Statistics Service of Ukraine

A significant number of swine producers in the eastern and northern regions of Ukraine, where many swine operations were concentrated in pre-war years, suffered from direct war losses. Some farms were destroyed, and many were depopulated due to the inability to conduct business in areas adjacent to the warfare zone. Many farms distributed weaned piglets to the local residents and donated pork to displaced people. Although limited production in many impacted farms resumed (predominately in the northern regions), they could not return to the pre-war level. Less efficient household production happened to be more resilient to war-related factors. Private households continued to rely on locally

procured inputs and local sales. Because of this, the drop in household inventory did not exceed 10 percent of the 2021 level, while the industrial sector drop well surpassed that.

Figure 14. Number of Pigs (Farms of All Types as of Jan 1st of Each Year)



Source: State Statistics Service of Ukraine

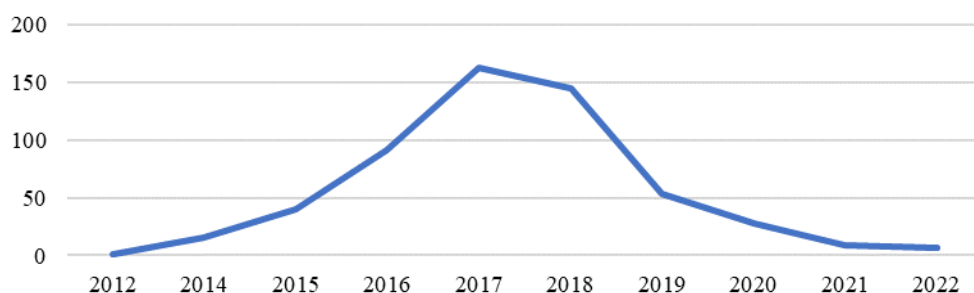
Production at industrial farms that did not suffer directly from the war impact remained depressed due to significant uncertainty over war developments. Many farms increased hog sales for slaughter, decreased slaughter weights, and decreased hog population. All this resulted in a substantial production drop, creating a significant pork deficit. The industry returned to normal production in the early summer of 2022 when Russia's major army advances stalled.

African Swine Fever

African Swine Fever (ASF) remains the largest threat to production, especially in industrial farms. The government of Ukraine implements compensatory programs for households, but industrial farms have to rely on commercially available insurance tools despite their high cost. Large-scale production may

suffer a significant loss due to proximity outbreaks in wild fauna or nearby household plots. Contrary to expectations, the number of ASF outbreaks did not increase due to warfare. The number of officially registered cases remains low, and no information about large industrial farm outbreaks is available to FAS Kyiv.

Figure 15. Number of Officially Registered African Swine Fever Cases



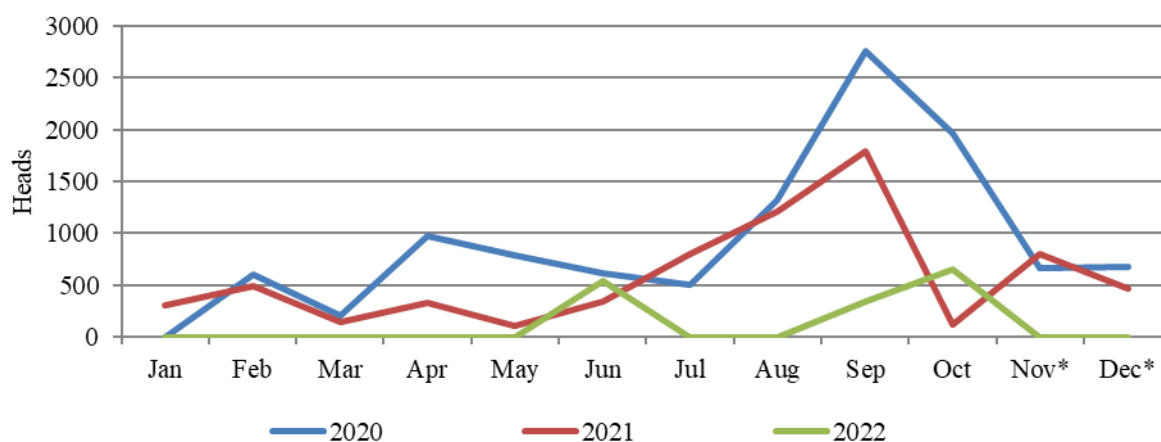
Source: <http://www.asf.vet.ua>, SSUFSCP, Institute for Laboratory Diagnostics and Veterinary-Sanitary Expertise

Trade

Due to ASF presence in the country, the export of live pigs remains very restricted. In previous years small batches of pigs were sold to Georgia, which is also ASF-impacted. However, due to the closure of Black Sea ports, no live pig export was possible in 2022. The situation is not expected to change in 2023.

Ukraine imports live pigs to support the genetics programs at large industrial farms. Almost all imported pigs arrive from the large EU and Great Britain genetic centers. Maintenance of these imports is critically important for the industry. Limited imports resumed in the summer of 2022 when logistical and payment issues were resolved.

Figure 16. Import of Live Pigs



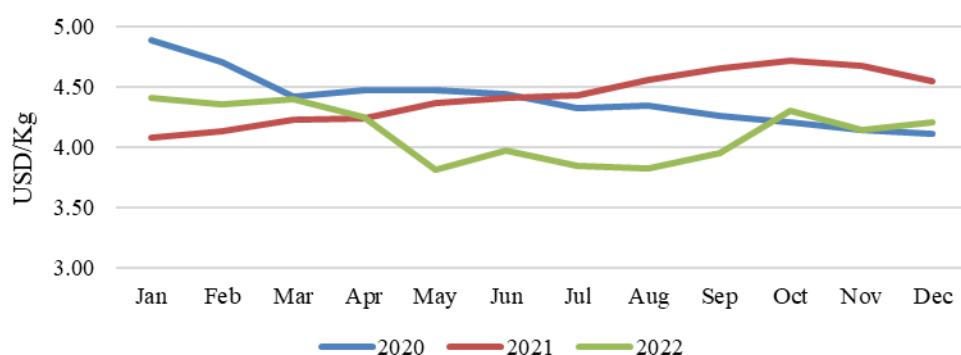
Source: Trade Data Monitor, *FAS Kyiv estimates

Pork

Production

Ukraine's pre-war pork production did not cover the domestic demand. After the war started, both industrial farms and private households increased animal slaughter significantly. After the initial pork production spike, the industry slowed down production in the remaining months of 2022. Similar to other meat producers, the industry faced significant market shrinkage caused by refugee outflow and a drop in disposable income. The initial inflow of additional pork imports depressed domestic prices. Significant mid-year imports depressed them prior to recovery toward the 2022 year-end.

Figure 17. Ukraine's Pork Retail Price

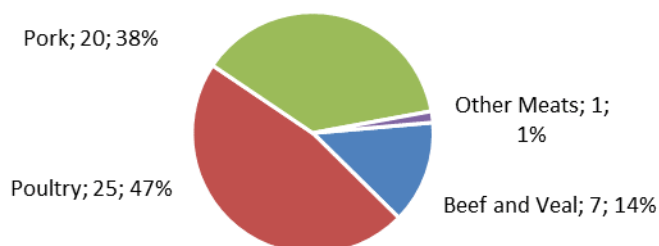


Source: State Statistics Service of Ukraine

Consumption

Ukraine's pork consumption decreased significantly in 2022 despite increased imports. Similar to beef, it suffered from a 20 percent population outflow and a significant drop in disposable income. Ukrainian currency devaluation, overall economic and political uncertainty, high inflation rate, and over 30 percent GDP drop further depressed pork consumption. The disposable income drop was exacerbated by a growing number of internally displaced persons who lost their income sources and had to cut their consumption. After the initial domestic production spike in February-May, consumers increasingly relied on imported pork products in the remaining month of 2022.

Figure 18. Per capita Meat Consumption in Ukraine in 2021, kg



Source: State Statistics Service of Ukraine

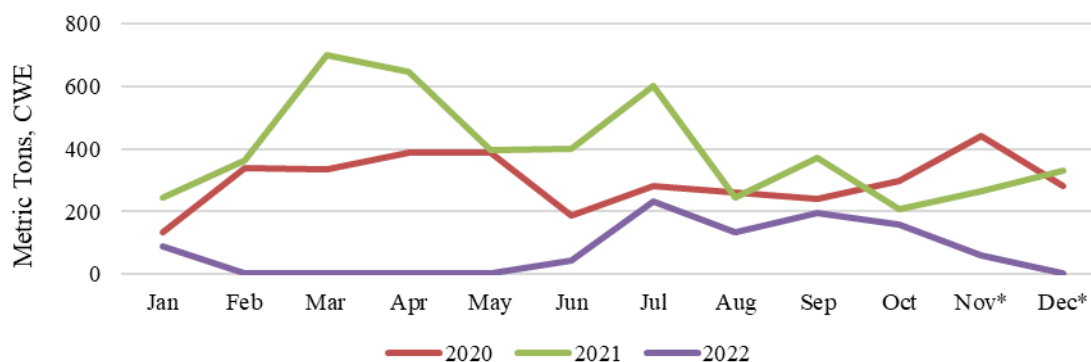
Pork remains one of the three major proteins consumed by Ukrainians and plays an essential role in the Ukrainian diet. However, war-related factors are expected to result in a gradual increase of poultry and a gradual decrease of red meat (especially beef) in total animal protein consumption.

Trade

Exports

Ukraine has become a significant importer of pork in recent years. Exports are sporadic and limited. Due to war-related logistics problems, Ukraine did not export any pork products from February to May. Ukraine is an ASF-affected country, which limited exports to very few export destinations willing to accept the risks. The 2023 exports are not expected to be significant due to the country's disease status and logistical restrictions.

Figure 19. Ukraine's Pork Exports



*Source: Trade Data Monitor; *FAS Kyiv estimates*

Imports

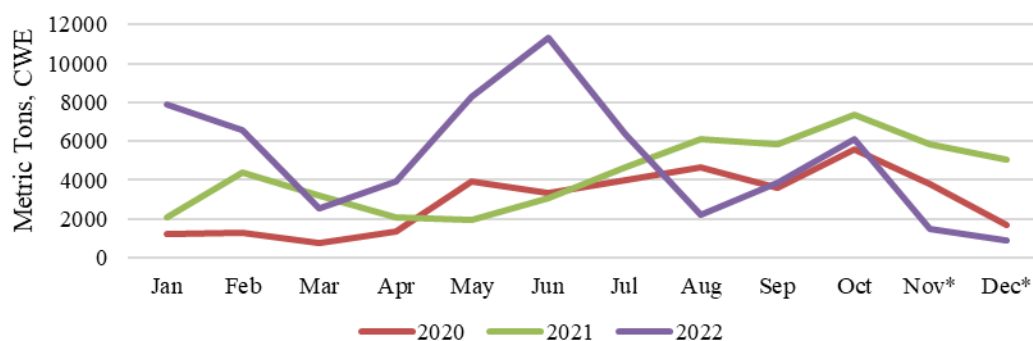
Declining swine inventory and a sharp decrease in pork production that started in the summer of 2022 resulted in a notable import increase. The inventory decrease in 2022 will not allow for expanded production and will require even more imports in 2023.

Pork importers benefit from two macroeconomic and legal developments:

- Pork was listed in the list of critical war imports adopted by the Cabinet of Ministers on the first day of the war. This allowed importers to procure foreign currency purchases on Interbank Currency Exchange at the official rate. The Ukrainian currency exchange rate was fixed at UAH 29.25 to 1 USD in February 2022 and increased to UAH 36.6 to 1 USD in August 2022. Both rates remained below the freely formed Interbank Exchange rate. The difference between fixed and market exchange rates provided the importers with a currency exchange premium.
- Small importers received additional support from the Ukrainian government in mid-March 2022. The small business war support package initiated by the Ukrainian Government and adopted by

the Parliament provided a Value Added Tax (VAT) break for small business entities. As a result, many pork importers were qualified. With this incentive, some pork imports from the EU subject to DCFTA zero import duty import quota also got a 20 percent VAT exemption, and imports became free of all taxes. The tax breaks were canceled in late July, but many imports entered the country before that.

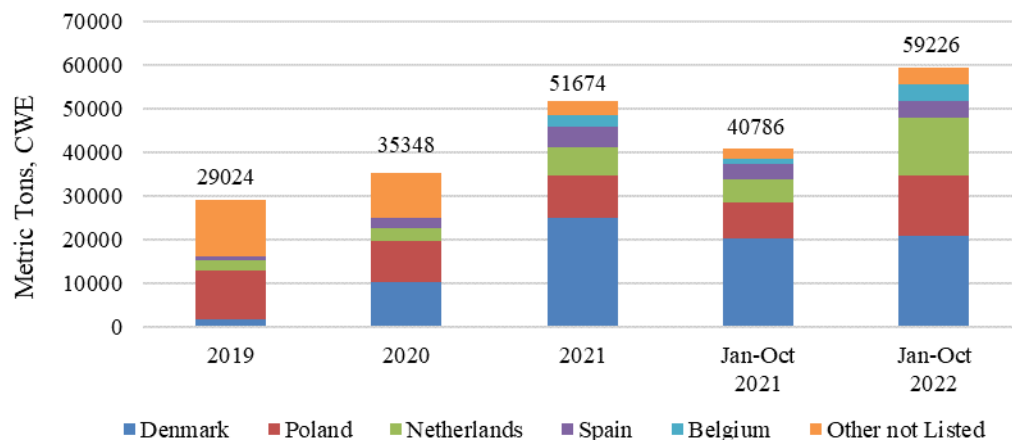
Figure 20. Ukraine's Monthly Pork Imports



*Source: Trade Data Monitor; *FAS Kyiv estimates*

The domestic production contraction of 2022 resulted in an all-time high record of pork imports, and 2023 is likely to establish a new import record. The EU suppliers (Denmark, Poland, and the Netherlands) traditionally dominate the market. Limitations on wartime logistics with transshipments exclusively through the EU territory make most imports from other destinations non-competitive.

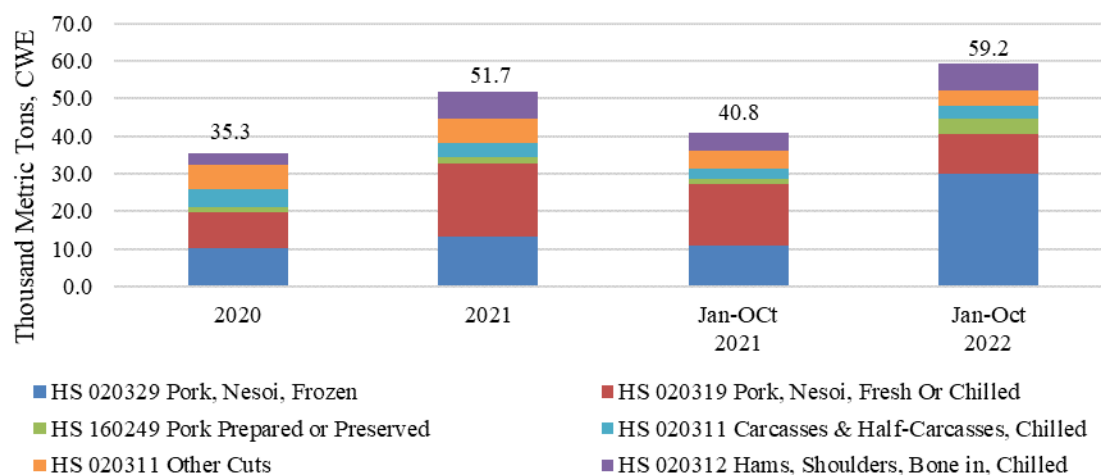
Figure 21. Ukraine's Pork Imports by Country



Source: Trade Data Monitor

Ukraine's 2022 imports shifted toward cheaper products due to plummeting consumer incomes. Minced pork, trimmings, and offal (both chilled and frozen) for further processing constitute almost three-quarters of Ukraine's imports. In addition, being a country in war, Ukraine increased imports of preserved (canned) pork and products.

Figure 22. Structure of Ukraine's Pork Imports



Source: Trade Data Monitor

Attachment I. PSD Tables

Table 1. Ukraine Animal Numbers, Cattle, Thousand of Head*

Animal Numbers, Cattle Market Year Begins Ukraine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Total Cattle Beg. Stocks	2975	2975	2744	2742	2300	2404
Dairy Cows Beg. Stocks	1722	1722	1592	1591	1450	1490
Beef Cows Beg. Stocks	20	20	20	20	18	18
Production (Calf Crop)	1589	1589	1470	1470	1325	1325
Total Imports	5	5	2	2	2	3
Total Supply	4569	4569	4216	4214	3627	3732
Total Exports	56	56	50	66	30	45
Cow Slaughter	0	0	0	0	0	0
Calf Slaughter	0	0	0	0	0	0
Other Slaughter	1743	1745	1780	1658	1485	1452
Total Slaughter	1743	1745	1780	1658	1485	1452
Loss and Residual	26	26	86	86	37	35
Ending Inventories	2744	2742	2300	2404	2075	2200
Total Distribution	4569	4569	4216	4214	3627	3732

*Not Official USDA Data

This table includes indicators for Crimea.

Table 2. Ukraine Animal Numbers, Swine 1000 HEAD

Animal Numbers, Swine Market Year Begins Ukraine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Total Beginning Stocks	5986	5986	5718	5718	5000	5140
Sow Beginning Stocks	359	359	340	240	280	300
Production (Pig Crop)	8550	8550	7500	7500	6700	6600
Total Imports	7	7	2	1	2	2
Total Supply	14543	14543	13220	13219	11702	11742
Total Exports	19	19	3	2	3	2
Sow Slaughter	0	0	0	0	0	0
Other Slaughter	8340	8340	7215	7075	6450	6340
Total Slaughter	8340	8340	7215	7075	6450	6340
Loss and Residual	466	466	1002	1002	449	450
Ending Inventories	5718	5718	5000	5140	4800	4950
Total Distribution	14543	14543	13220	13219	11702	11742

**Not Official USDA Data*

This table includes indicators for Crimea.

Table 3. Meat, Beef, and Veal 1000 MT CWE

Meat, Beef, and Veal Market Year Begins Ukraine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Slaughter (Reference) (1000 HEAD)	1743	1745	1780	1658	1485	1452
Beginning Stocks	0	0	0	0	0	0
Production	318	319	305	300	250	265
Total Imports	4	4	3	3	3	3
Total Supply	322	323	308	303	253	268
Total Exports	36	36	15	21	15	20
Human Dom. Consumption	286	287	293	282	238	248
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	286	287	293	282	238	248
Ending Stocks	0	0	0	0	0	0
Total Distribution	322	323	308	303	253	268

**Not Official USDA Data*

This table includes indicators for Crimea.

Table 4. Meat, Swine, 1000 MT CWE

Meat, Swine Market Year Begins Ukraine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Slaughter (Reference) (1000 HEAD)	8340	8340	7215	7075	6450	6340
Beginning Stocks	0	0	0	0	0	0
Production	750	745	650	661	580	580
Total Imports	52	52	75	62	75	80
Total Supply	802	797	725	723	655	660
Total Exports	5	5	0	1	0	1
Human Dom. Consumption	797	792	725	722	655	659
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	797	792	725	722	655	659
Ending Stocks	0	0	0	0	0	0
Total Distribution	802	797	725	723	655	660

**Not Official USDA Data*

This table includes indicators for Crimea.

Attachments:

No Attachments