

# Ukraine Macro & Fixed Income Strategy

War economy

August 17, 2022

# Executive summary

Ukraine is facing the toughest challenge for its statehood as the Russian army invaded the country on Feb. 24 with the biggest offensive of the XXI century. Being able to withstand the first weeks of the aggression, Ukraine proved its right to get international assistance against the terror. In the couple of weeks, it stabilized the front line and with further support from the West in ammunition managed to de-occupy a large territory of northern Ukraine.

With even bigger support from the West, Ukraine has good chance to liberate most of the occupied territories and weaken Russia enough to stop the war. Ideally for Ukraine, Russia will be demilitarized or fall apart, so that security situation and investment climate in Ukraine returns closer the pre-war levels. The timing of such outcome is, however, hard to estimate. Thanks to the western assistance with money and ammunition, as well as the sanctions pressure on Russia, time is playing in Ukraine's favor.

The key risk for Ukraine is that Russia's success in propaganda and diplomacy will result in a frozen conflict and Russia's retaining some strength, meaning long-term threat to Ukraine's statehood will remain. As this is the main way out for Russia from the current hostility, we are sure that the aggressor will triple its efforts on the lobbying front in the near future. Meanwhile, we believe that the West is determined to go to the end with Ukraine in defeating the evil.

Ukraine's economy has suffered much from the war, with so far loss of the part of territory that generated about 9% of the country's GDP in 2021. Attacks on civil infrastructure made damage comparable to about 50% of the country's GDP, threats to personal security forced about a third of citizens to leave their homes, including 15% forced to temporarily leave the country. Seaports blockade caused perhaps the most damage to Ukraine's business operations and export potential as almost 2/3 of goods export value came through the seaports, and no immediate alternative to this route is present. Ukraine's GDP fell about 40% yoy in 2Q22, with some signs of recovery afterwards, and is going to show a 30%-35% decline in 2022.

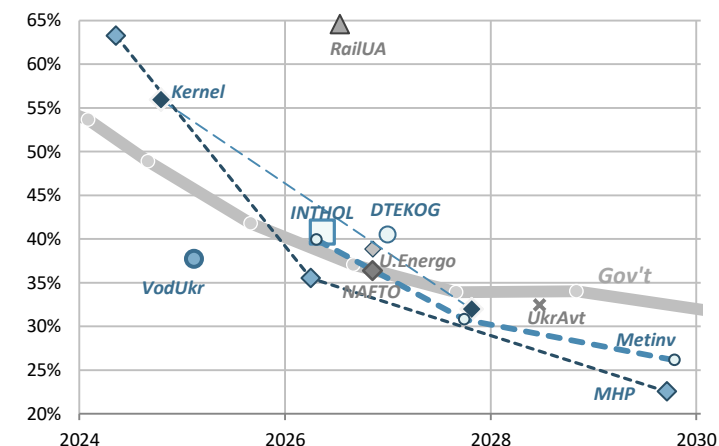
The state budget fell into a deep deficit as military expenses increased over 6x, while own budget revenues dried out. Thus far, about 2/3 of budget outlays are financed by loans and grants, with the share of latter component is increasing.

In such environment, private creditors made their own humble contribution to Ukraine's success and have recently agreed to give a 2-year grace period on payments of all sovereign and guaranteed Eurobonds, as well as allowed their maturity extension by two years.

The war is a good excuse for borrowers to ask for better credit conditions, but we see that many Eurobond issuers will have either good reasons to continue servicing their bonds, or few reasons to ask for restructuring. Taking into account the issuers' exposure to risky locations and the effect of the invasion on their operations, we conclude that:

- DTEK Oil & Gas (**DTEKOG**), VF-Ukraine (**VODUKR**), MHP (**MHPSA**), Oschadbank (**OSCHAD**) and Ukreximbank (**EXIMUK**) have good chances to keep servicing their bonds as initially scheduled.
- Kernel (**KERPW**), Naftogaz (**NAFTO**), Interpipe (**INTHOL**), Ukrainian Railways (**RAILUA**) and DTEK Energy (**DTEKUA**) will face more challenges with their operations and look more pre-disposed to ask for bonds restructuring.
- The riskiest issuers now are Metinvest (**METINV**) and DTEK Renewables (**DTEREN**) which suffered from heavy asset losses and adverse market conditions due to the war.

## Eurobond yield map



**Investing in Ukrainian assets looks like a crazy idea now, but the fact is that bondholders were the biggest believers in Ukraine including all the western governments which reportedly wrote off Ukraine some days before the Russian invasion. Now that the governments are increasingly investing into Ukraine's success demonstrating its bigger confidence in a good outcome, Ukraine's chance for victory (and preserving its life) is getting higher.**

### For those who believe in Ukraine's success, we recommend:

- investing in the bonds of issuers that have better chances to go through the hardships with minimal losses, and those bonds that have some "capital gain" potential in the short-term: **DTEKOG** and **VODUKR**
- seeking bonds of state banks (**OSCHAD** and **EXIMUK**) which offer attractive yields to their maturity, although we believe finding them will be a challenge due to their low liquidity.

**To increase the chance of Ukraine's success, we recommend the clients to assist via purchase of domestic government bonds and contributions to Ukrainian volunteer funds.**

## War in Ukraine

# Russian invasion of Ukraine: Brief review

On Feb. 24, the Russian regime, after eight years of muddling, showed its true intention regarding Ukraine and started a full-scale war aimed at conquering the country. Its plan to capture Kyiv within days fell apart due to the strong resistance of the Ukrainian army and people. Russia had to change plans many times to diminish its ultimate goals. As of now, the aggressor has been able to increase its territory from 7% of Ukraine in 2014-2015 to 21%.

After initial success (territorially) in February-March, the Russian attacks stalled; its army quit northern Ukraine. After concentrating most its forces in easternmost locations, Russia managed to capture two cities of 100-150K population over the last two months, meaning that even a highly-focused offensive has stalled.

From Russian activity and media, we can draw its following plans:

**Plan A – late February (failed): Capture Kyiv and establish a pro-Russian government.** The aggressor planned to helicopter in special forces to two airports west and south of Kyiv and reinforce the bridgeheads with more troops delivered by plane, as well as bring over land heavily mechanized troops from Belarus, north-west of Kyiv.

**Plan A1 – late February (partial success): Attack from occupied Crimea and Donetsk to take the south (Mariupol-Odesa up to Russia-controlled “Transnistria” in Moldova).** Within the first weeks, the aggressor managed to capture Kherson, Melitopol and Berdyansk, reach Mykolaiv and outskirts of Kryvyi Rih. After great success on the first weeks, the army stalled and later was kicked out of Mykolaiv. Large city of Mariupol was captured after three-month attacks.

**Plan A2 / B – February-March (failed): Capture Kyiv and the entire northern and eastern Ukraine.** Attempts to encircle Kyiv from the west and east failed due to a lack of troops and heavy losses. The aggressor decided to fully withdraw from Kyiv and Kharkiv, as well from the regions of Kyiv, Chernihiv and Sumy.

**Plan C – April-May (failed): Encircle and capture entire Donetsk and Luhansk regions.** After withdrawal from Kyiv-Sumy, the aggressor concentrated all its forces there. Attempts to build pincers from the south (northwest of Mariupol) and north (southeast of Kharkiv) turned out to be impossible.

**Plan D – May-now (slow progress): Concentrate all available forces in easternmost regions, gradually capture Luhansk and Donetsk regions and move further.** Keep positions in the south, if possible. The biggest success was reached in late June, with the capture of Severodonetsk and Lysychansk as well as occupation of 100% of Luhansk region. The next likely targets are the largest remaining cities of Donetsk region, Sloviansk and Kramatorsk (no success is reached), as well as town of Adviyivka to the west from Donetsk.



# Russian aggression: Key consequences

Russian military aggression against Ukraine and its people has already caused severe damage to the country and its population.

With the recent military actions, Russia managed to increase territory under its control to about 130 ths km<sup>2</sup> (more than entire area of Bulgaria and almost the area of Greece), which is an increase of about 86 ths km<sup>2</sup>

The invasion has forced about 13 mln Ukrainians (more than the population of Greece, Belgium or Portugal) to migrate either inside Ukraine or out of the country.

Russian attacks on civil infrastructure have already caused damages estimated at about USD 100 bln (or half of Ukraine's 2021 GDP), caused a significant drop of business activity and damages to thousands of businesses. Residential buildings, hospitals, schools and utility/energy infrastructure have all suffered, which will make it harder for people to return to their usual way of life even if the aggression stops right now.



## Damages caused by Russian aggression since Feb. 24

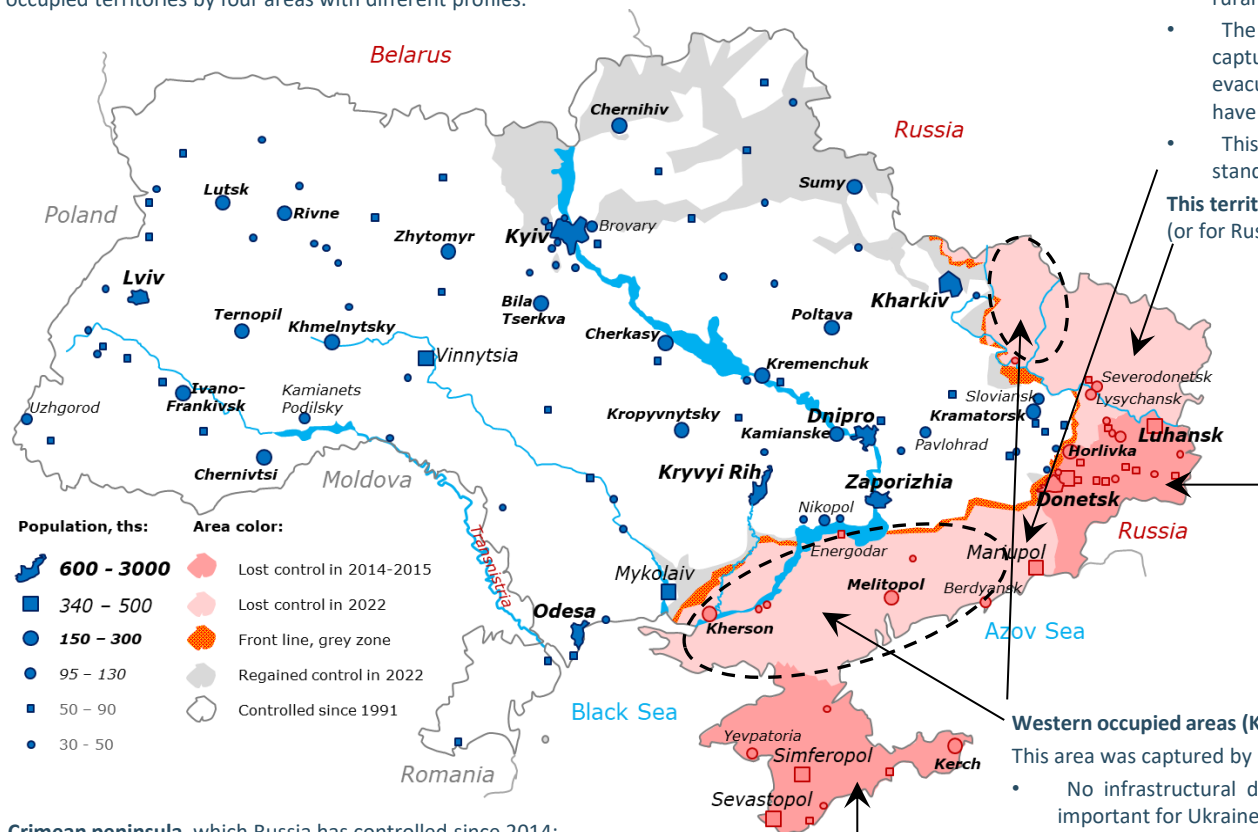
	Severely damaged or destroyed / <b>Totally destroyed</b>	% of total*	Data as of
Houses	<b>15 mln m<sup>2</sup></b> <b>With 0.8 mln residents</b>	<b>1.5%</b>	30-Jun
Roads	25,000 km	14.0%	23-Jul
Road bridges	309	3.2%	23-Jul
Schools	941	6.7%	31-May
Medical premises	<b>111</b>	<b>0.8%</b>	31-May
	830	6.9%	28-Jul
Religious premises	<b>116</b>	<b>1.0%</b>	28-Jul
	183	0.6%	24-Jul

## Territories occupied by the aggressor

	Area	% of total	Populated (end-2021)	% of total
Total	129 ths km <sup>2</sup>	21%	10.4 mln	24%
- Occupied in 2014-2015	43 ths km <sup>2</sup>	7%	6.0 mln	14%
- Occupied after Feb. 23	86 ths km <sup>2</sup>	14%	4.4 mln	10%
% of area controlled as of Feb. 23		15%*		12%*

# Prospects of de-occupation: Profiles of occupied territories

As the supply of modern western military equipment intensifies, Ukraine will have a chance to start counter-offensives in August-September. The possibilities to de-occupy Ukraine's territories depend on the ability of the Ukrainian army to succeed (which is hard to estimate) and the specifics of each occupied region. We divide the occupied territories by four areas with different profiles.



## Crimean peninsula, which Russia has controlled since 2014:

- A lot of Russian citizens have inhabited it, many people have pro-Russia position there.
- Infrastructure has been well-preserved.
- Heavily militarized. Connected to Russia with just one bridge.
- It is part of Russia, based on its "amended constitution".

**Liberating it using force is technically possible, but the to the risk of a new wave of Russian aggression due to such efforts should be kept in mind.**

## Eastern "moonscape" areas (Severodonetsk, Lysychansk and up to the north, plus the area around Mariupol):

- Area north of Severodonetsk is Ukraine's least densely populated rural area, which was taken easily at the start of the invasion.
- The parts around Severodonetsk, Lysychansk and Mariupol were captured slowly, with total infrastructure damage and the evacuation of up to 90% of the population. Most of the remaining have pro-Russian position.
- This area is easier to hold by the Russian army from a logistics standpoint but has little value economically.

**This territory will be hard to liberate, militarily, and its value for Ukraine (or for Russia) is very low.**

## The "DNR/LNR area", part of Donetsk & Luhansk regions which Russia has controlled since 2014-2015:

- Anti-Ukrainian sentiment dominates. Many of its males must serve in pro-Russian armies – pro-Russian sentiment might drop.
- Heavily industrialized in the past, Infrastructure has fallen since 2014-2016.
- Logistically close to Russia, militarized.
- Russia sees it as "two independent states."

**Liberating it is not an urgent task for Ukraine, while there is some risk of raising the level of Russian aggression if an attempt is made.**

## Western occupied areas (Kherson to Berdyansk, plus east of Kharkiv):

This area was captured by Russia within days in 2022, therefore:

- No infrastructural damage in the course of invasion – a lot of valuable assets important for Ukraine's economy remained there.
- Many people remained in place, so there is strong pro-Ukraine sentiment there and fierce resistance to occupants is detected.
- The southern part is hard to hold by Russia due to logistical bottlenecks. Concentration of Russian army is small.

**This territory is easier to liberate, the sooner the better** and there is economic sense in de-occupation (though the risk of asset damage during the liberation campaign is high).

# Prospects of de-occupation: Possible if Western support goes on

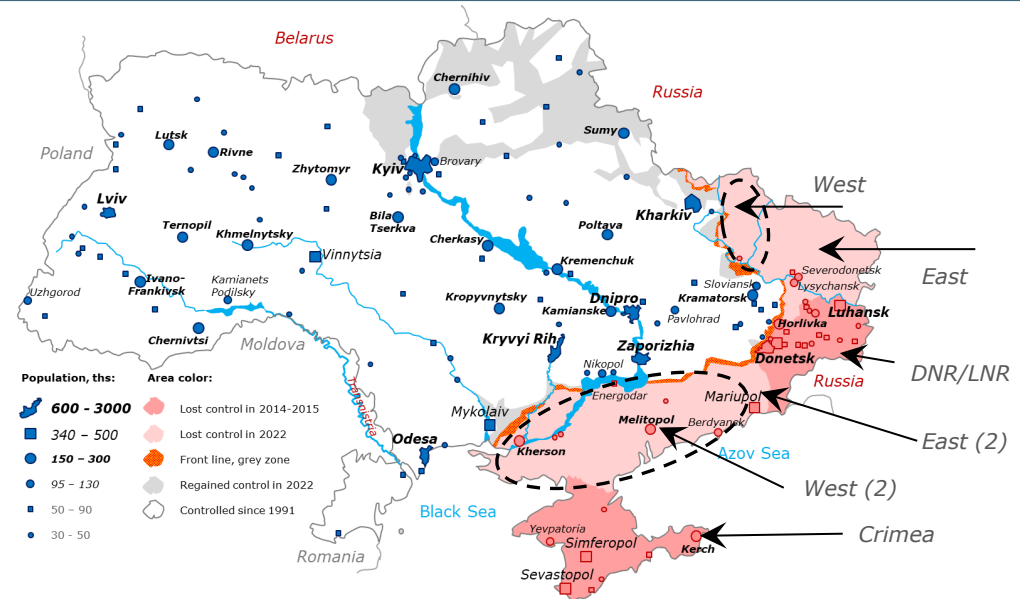
There are myriads of possible scenarios of the end of Russian invasion in Ukraine, but in the long-term they end up into:

- Either full liberation of Ukraine and (consequently) weakening or falling apart of Russia;
- Or Russia's capturing the entire or major part of Ukraine.

While abstaining from describing a detailed best-case scenario for Ukraine, we offer a possible sequence of the liberation of its territories:

- **Western occupied areas** can be liberated soon (in the next 6-12 months), and the faster Ukraine attempts a counter-offensive the bigger is chance for success (as soon as there is large share of pro-Ukrainian population there). As stated above, these territories have economic sense, and they are strategically important for Russia, too. So, most of the upcoming heavy battles could happen there.
- **Eastern "moonscape" territories:** Russia can exit them voluntarily after losing the western areas. There will be little sense for Russia to hold them. In this way, it can be liberated within the next 6-18 months. There is also a risk that before liberation, Russia will expand the moonscape territories.
- **Liberation of territories occupied by Russia in 2014-2015** (Crimea and so-called DNR/LNR area) looks not like a short-term goal, but still is possible in the next one-three years:
  - Under constant diplomatic and economic pressure, as well as with increasing concerns about heavy losses among the occupants, the Russian state can be brought to the verge of collapse. If so, it will have to concentrate on internal issues, gradually losing its ability to protect the occupied territories.
  - The DNR/LNR territory will lose its ability to withstand Ukraine's counteroffensive due to large losses in its "army", which is mostly used as cannon fodder by Russians. Dissatisfaction with Russians due to this is increasing there.
  - Russia, without the ability to supply ammunition and human forces to Crimea (e.g. in case of loss of the connecting bridge) won't be able to withstand Ukraine's counteroffensive there. Russia's possible "argument" against liberation of Crimea could be a threat of nuclear attack on Ukraine. However, as the recent days shows, Russia is not hurrying to respond to attacks on Crimean military and other infrastructure.

Meanwhile, there is a risk that situation around these territories will turn into "frozen conflict" for a long period.



Occupied territories as % of Ukraine's total:

	Area	Population '21	GDP '20	Electricity '20	Steel '21
West	9.9%	6.2%	5.7%	25%	-
East	4.4%	3.5%*	3.0%*	2%*	45%*
Crimea	4.5%	5.3%	3.8%**	1%**	-
DNR/LNR	2.7%	8.2%*	8.0%**	7%**	21%*
<b>Total</b>	<b>21.4%</b>	<b>23.4%</b>	<b>n/m</b>	<b>n/m</b>	<b>n/m</b>

## Worst case for Ukraine: loss of western support

With financial and ammunition support of the Western world, Ukraine has a good chance to win the war and liberate the occupied territories. The only viable chance for Russia to avoid the defeat is to stop such support and force Ukraine reaching a "peace" agreement.

Russia will try to persuade the West that Ukraine is not worth assisting, or the price of such assistance is too high. There is a possibility of it succeeding. In such case:

- With lack of ammunition supply, Ukraine won't be able to liberate territories and will continue to lose them (the rest of Donetsk region, possibly Zaporizhia, Mykolaiv and Odesa regions).
- The offensive might go on or turn into "frozen conflict" up until Russia accumulates enough forces to take over most or all of Ukraine.

In the next couple of months Russia will significantly intensify political, diplomatic and economic means to get closer to this scenario.



## Impact of War: Key Indicators

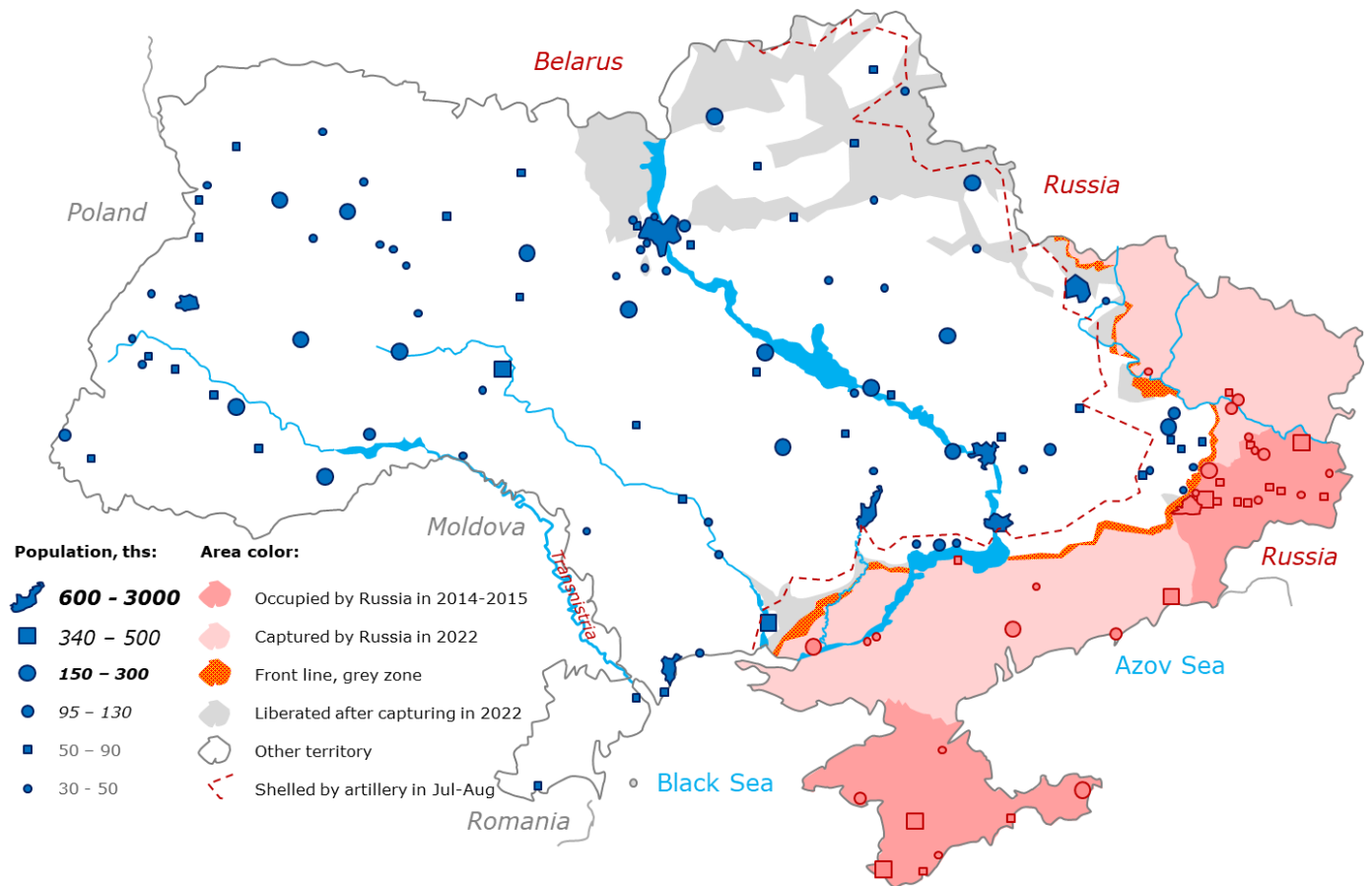


# Security situation in Ukraine

The riskiest areas for human life and assets are:

- **The front lines and close to them** in eastern and southern Ukraine is a place impossible to live in.
- **Locations about 20-25 km from the front lines or Russian territory.** The risk of artillery fire is very high there (see map for areas that were reached by aggressor's artillery just in July-August).
- **Recently occupied territories.** Risk of food and water shortage, risk of the pro-Ukrainian population being repressed, risk of people being kidnapped and deported to Russia. Also, there is a risk of damage in the course of military actions once Ukraine attempts to liberate these territories. To some extent, such risks are **also true for the territories occupied in 2014-2015.**
- **Areas that were liberated** after occupation in February-July 2022. In many such places, there is a risk of suffering from mines and other explosives that could have been left behind. This is especially dangerous for farming operations.

**Other territory** of Ukraine can be considered as **relatively safe**. But there is no territory that can be considered as safe in Ukraine, as Russian long-range missile strikes can reach any location. In the last five months, almost every city with over 150k residents and many smaller towns suffered from missile attacks. The biggest risk of missile attacks is in the largest and industrialized cities, as well as locations close to Black Sea.



There is also a risk of ground attacks from the territory of Belarus or the eastern part of Moldova (Transnistria region) as these territories are under Russian military control. Thus far, the probability of such attacks is considered as low by Ukrainian officials.

# Impact of Russian aggression: Regional aspect

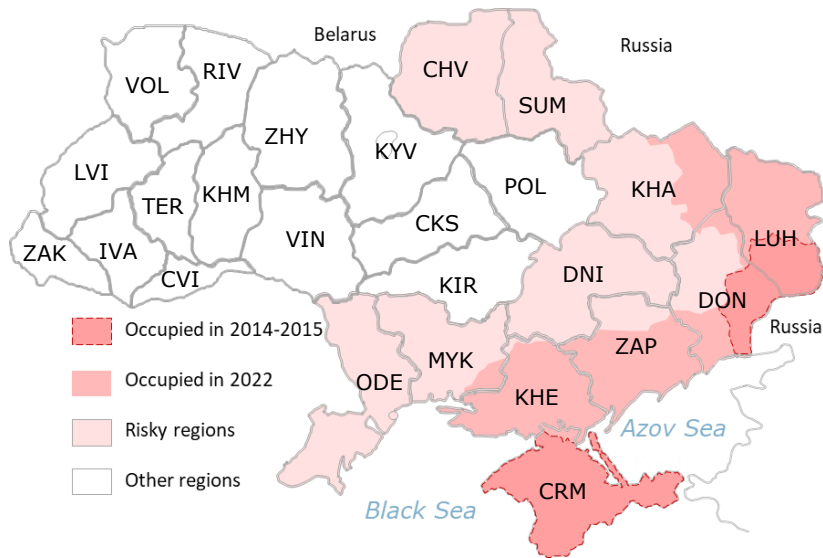
As of this moment, the Russian aggressor has occupied about 21% of Ukraine's territory, including the full occupation of Crimea and Luhansk region, and the partial occupation of five other regions.

We determine the following locations that differ from security and safety standpoint:

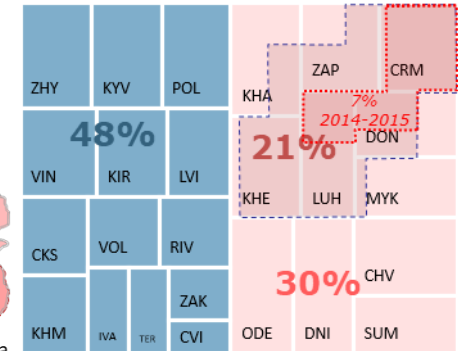
- Occupied territories.
- Regions that are under high risk of the aggressor's attacks (risky regions) – those close to Russia, the seashore, or occupied territories. Risks to civilians and infrastructure are extremely high there.
- Other regions - those having no risk of immediate land attack or artillery shelling. However, no location is safe against attacks by long-range rockets.

The occupied locations generated about 9% of Ukraine's GDP in 2021 and the regions that are risky for life and work generated about 30% of GDP.

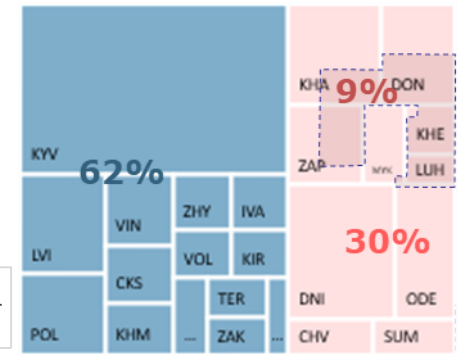
Ukrainian regions and occupied (as of now) territories



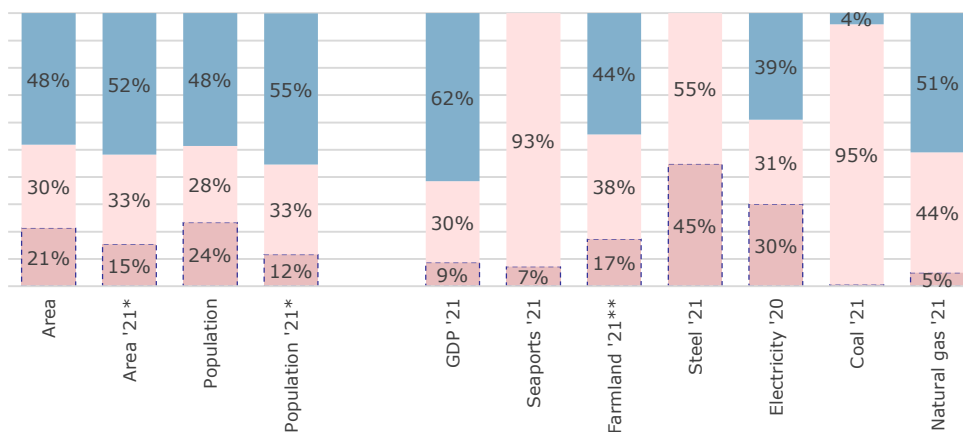
Area



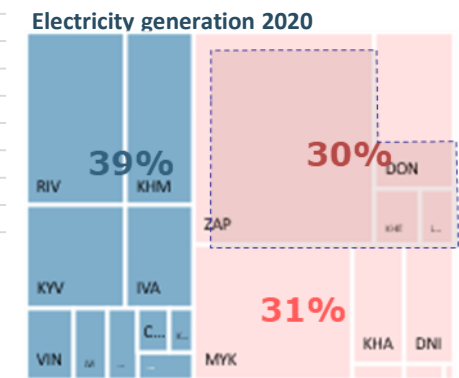
GDP 2021



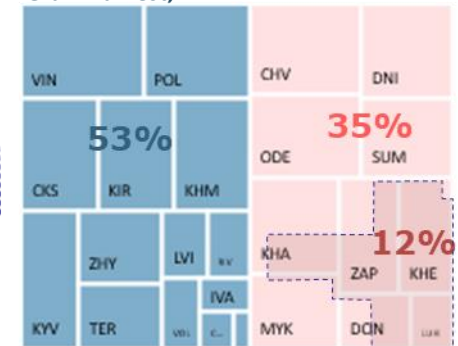
Current distribution of Ukrainian regions by size / output



Electricity generation 2020



Grain harvest, 11M21

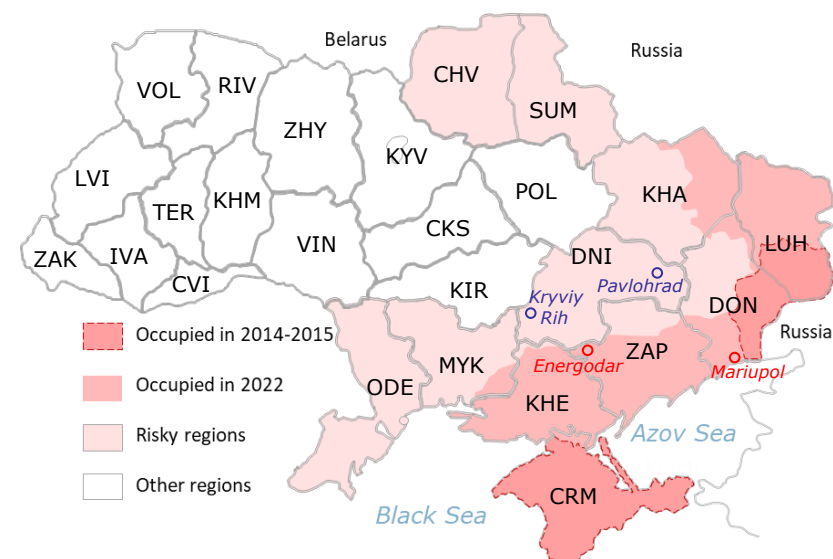


# Impact of Russian aggression: Key economy sectors

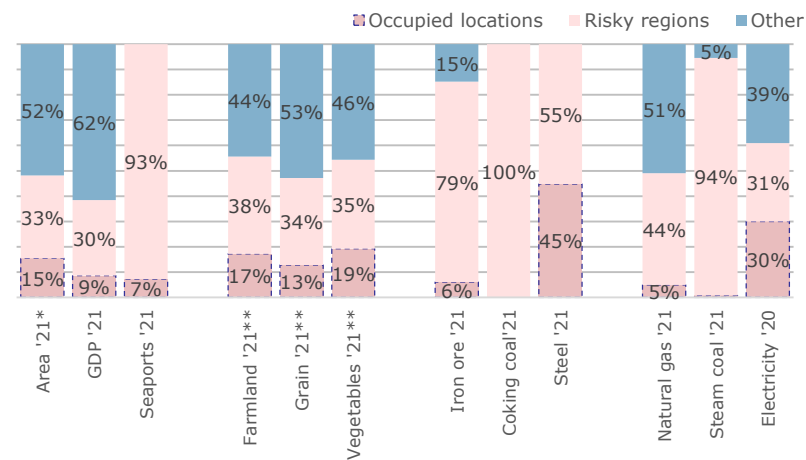
The biggest impact of Russian aggression on Ukraine's economy is in the following areas:

- **Logistics:** all seaports (responsible for 62% of Ukraine's goods exports in value terms) have been blocked since late February. Problems with logistics heavily affected commodity exports: grain (partially unblocked now), ore, steel and chemicals.
- **Steel production:** after the occupation of **Mariupol**, Ukraine has temporarily lost steel capacities bringing 45% of its 2021 output. Logistical issues affected raw material supply chains thus further limiting steel makers' capacities. At the same time, the potential liberation of territories occupied by Russia in 2014-2015 would increase Ukraine's steel making capabilities.
- **Iron ore mining:** most iron ore deposits (79% of iron ore products output in 2021) are located in **Kryviy Rih**, about 25-90 km from the front line. Loss of about 45% of internal steel production capacities has intensified the need to export iron ore, which is a challenging task due to logistical issues.
- **Power generation:** With the occupation of **Energodar** in Zaporizhia region, Ukraine has lost control over nuclear (NPP) and thermal (TPP) power plants which generated 22.5% of power in 2020 (about 25.3% in 2021). Producers of about 30% of power in 2020 are now occupied. On top of that, three TPPs (7.6% of 2020 and of 6.2% of 2021 output) are located no more than 22 km from the front lines. Therefore, power capacities responsible for about 37-38% of 2020/21 power output are either occupied or under severe risk of ground/artillery attacks. Large power plants are among Russia's top targets if its aim is to undermine Ukraine's energy security.
- **Coal production:** Coal assets responsible for mining of 72% of steam coal in 2021 are located in **Pavlohrad**, Dnipro region (and 23% - in Donetsk and Luhansk regions). Pavlohrad is distant from the front line (about 95 km). However, its importance in Ukraine's energy balance makes it a logical target for the aggressor. The potential liberation of territories occupied by Russia in 2014-2015 could double Ukraine's coal mining capacity. About 35-40% of the power in Ukraine is produced from coal.
- **Natural gas production:** The vast majority of natural gas is currently produced in Poltava region (about 47% of 2021 output) and Kharkiv region (46%). The latter is partially occupied. Gas wells producing about 5% of gas in 2021 are currently in the occupied locations, and about 44% are located in risky regions. If Russia does not occupy new locations in Kharkiv region (and does not penetrate into Poltava region), Ukraine would have enough natural gas for the next heating season.
- **The impact on Ukraine's 2022 grain harvest is limited**, as the occupied locations do not have the best farmland and climate conditions for efficient grain growing. However, an area much bigger than the occupied land is at risk (in many locations in northern and eastern Ukraine, it is dangerous to do field work due to mines). In any case, **logistical constraints is the key bottleneck for the agro sector**. With start of grain convoys, this issue is being gradually resolved, but risks of a new full blockade remain high.

Ukrainian regions and occupied (as of now) territories



Current distribution of regions that Ukraine controlled before 2022 invasion



# Impact of Russian aggression: Human capital

Perhaps the most painful impact of the aggression on Ukraine is related to movement of population:

- As of July 23, 6.65 mln internally displaced persons (IDPs) were officially reported\*, which is **16%** of the pre-war Ukrainian population, outside occupied Crimea. The number of IDPs have decreased slightly from the peak levels of early May (over 8 mln reported).
- As of Aug. 10, the UN recorded 6.38 mln\*\*refugees from Ukraine (**15%** of the pre-war Ukrainian population, outside occupied Crimea). This is more than population of Denmark or Finland. Of them, 3.82 mln officially applied for temporary protection in EU countries.

While most IDPs are likely to stay in Ukraine, there is a risk that significant portion of refugees (6-8% of the pre-war population) won't come back if the war continues for one year from now.

Among the people who have left Ukraine (6.38 mln)\*\*:

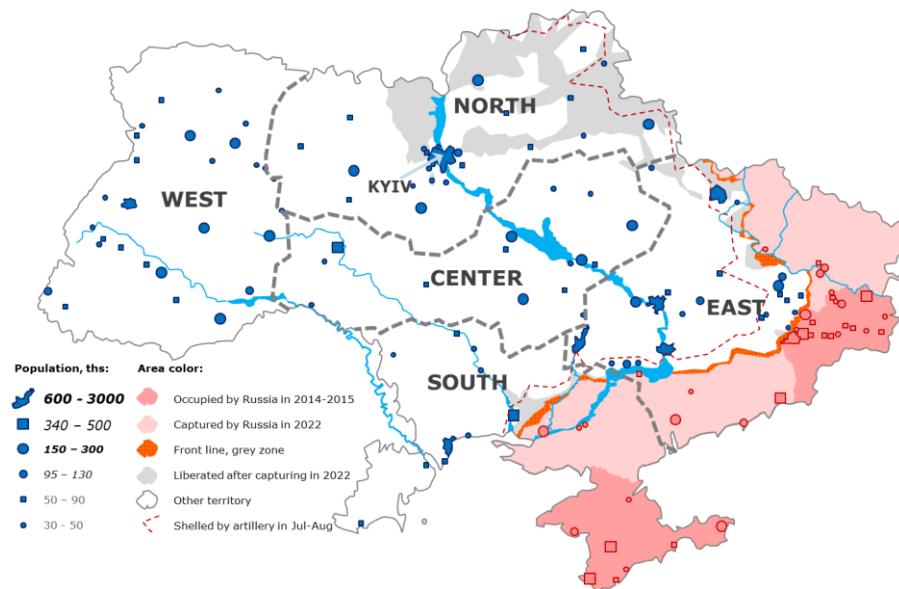
- About 4.41 mln (11% of the pre-war Ukrainian population outside Crimea)** migrated to friendly countries, including 29% to Poland, 21% to Germany and 9% to Czech Republic. Based on available surveys, we can state that:
  - About 40% of refugees are children, meaning about **24% of all Ukrainian children have left Ukraine** for EU countries.
  - Half of refugees are **18-60-old females** (there are limits for adult men exiting from Ukraine), which is about **18%** of pre-war number.

The return of such refugees will depend on the length of the war in Ukraine. Thus far, about 10% of refugees want to stay outside Ukraine for good, while about 50% are ready to return as soon as it becomes "safe" in Ukraine. As all children will have to go to school in their new countries since autumn, their socialization in the new places will decrease the chances for their return. In this way, many more emigrants will decide to stay abroad since autumn 2022. If the war continues for about one year (with no escalations from the Russian side) Ukraine is likely to **lose abroad** about 33%-50% of its refugees (**8-13% of children and 6-9% of adult females**). After the war ends, some husbands (most of whom cannot leave Ukraine now) might join their families abroad and even worsen Ukraine's demography. Total outflow to the West can be, therefore, **5-6%** of the pre-war population.

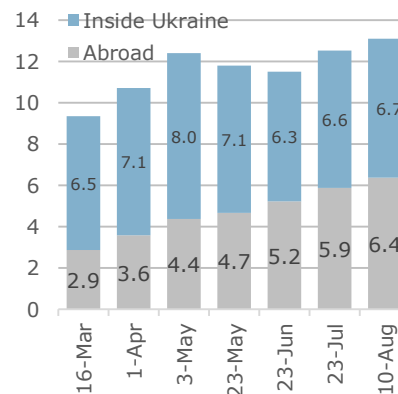
- About 1.97 mln of people (5% of the pre-war population living outside occupied Crimea)** entered Russia, according to UN data. The only way they can appear in Russia is displacement from the territories occupied by Russia, via forceful deportation or an attempt to escape from the occupation (in some cases, travel to Russia and then to the EU is the safest way to reach the free Ukrainian territory). The provided number looks too high, and it's unclear how the UN can calculate it. This data does not account for people who came back to Ukraine via other countries.

A lot of people who had to move to Russia could return to their places in Ukraine, as soon as they are liberated, or seek for other safer places in Ukraine. We estimate that about a third won't return.

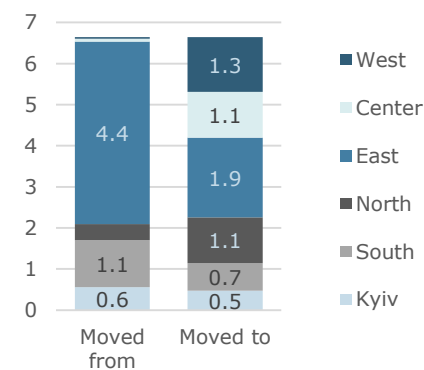
Ukrainian occupied (as of now) territories and macro-regions defined by IOM



Displaced Ukrainians, mln



IDPs as of July 23, mln



## Impact: Economy

# Economy collapses

The economy of the victim of such an aggressive invasion cannot avoid collapse. A big problem is that under such circumstances there are no official statistics of many economic indicators (only inflation, external trade and budget). Therefore, the most adequate source of data is estimates of the National Bank, which indicates that:

- Real GDP fell 15.1% in 1Q22 and will drop 39.3% in 2Q22 and 33.4% in 2022.
- The unemployment rate surged to 34.7% in 2Q22 (10.8% in 4Q21).

## We highlight the following drivers that affect Ukraine's real growth:

- **Broken supply chains.** To estimate its effect, we can refer to the results of the Russian "hybrid" invasion in 2014 (which cut off the same percentage of Ukraine's pre-invasion GDP as this year's open attack). In 2014-2015, with no de-occupation, it inflicted about an 18% cumulative decline in real output in six quarters. This time, the effect could be of the same size and less stretched in time. If Ukraine liberates the occupied territories (those lost in 2014-2015 and in 2022), the effect will fade sharply. This time, the Russians also **destroyed many assets** both in the areas they occupied and everywhere else in Ukraine.
- **Ports blockade.** The size of Ukraine's goods & services export is comparable to 41% of GDP. Almost half of that comes through seaports implying an immediate effect of the blockade of about 20% of GDP. In time, this effect will partially fade as new routes are found and the blockade is eased or removed. If the blockade is not removed in the next 6-12 months, the long-term effect on some business will be damaging.
- **Security situation:** The administrative regions currently suffer from land or artillery attacks by the aggressor's army (those parts that are not occupied) account for 21% of Ukraine's GDP. Proximity to the aggressor is a huge obstacle for operations for any business. The exit of about 15% of the pre-war population will significantly change consumption potential.
- **Airstrike alerts** in any location of Ukraine stop many business processes. In a median region, the duration of alert was 15.5 days for Feb. 25-Aug.17\*\*, or 9% of the time. Lost time for shelters can shave off 1-2% of GDP.

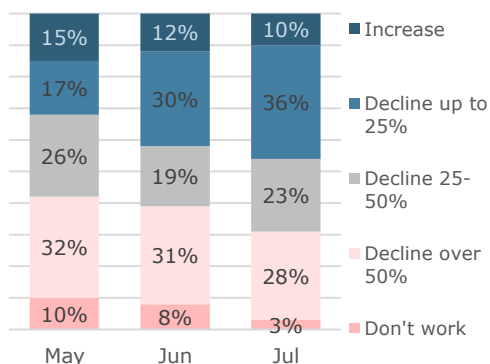
## Key factors that are important for GDP estimates are:

- Access of business to seaports (and/or availability of alternative routes),
- Movement of the frontlines,
- Number and consequence of missile attacks in Ukraine, duration of air alerts,
- Number of refugees/returnees.

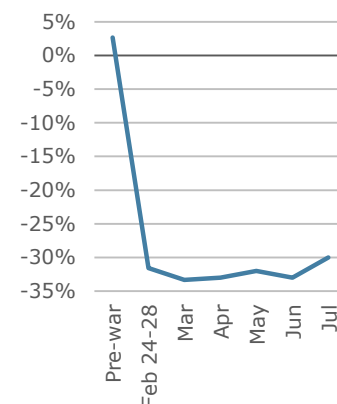
We assume that half of the currently negatives developments will be resolved by end-2022 and they will fade to zero by end-2023 (except refugees, half of whom will return only in 2023).

If so, we expect **Ukraine's GDP to decline 31% yoy in 2022 and recover by up to 8% in 2023**. In case of no improvements with all the above, the decline will be more dramatic in 2022 and we will see real economy to continue collapsing in 2023 (see the experience of 2014-2015).

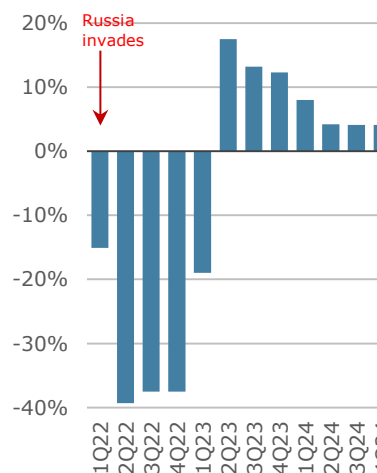
## Enterprises output since war start, IER survey\*



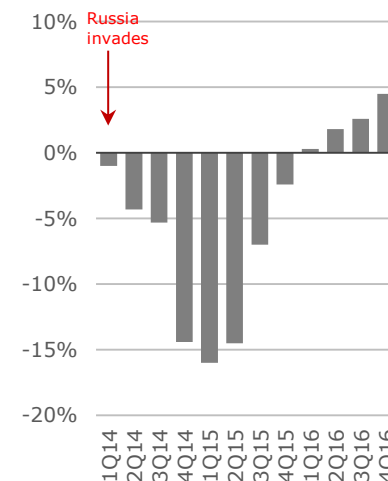
## Power generation in 2022, yoy



## Real GDP, NBU estimates



## Real GDP since 2014 aggression





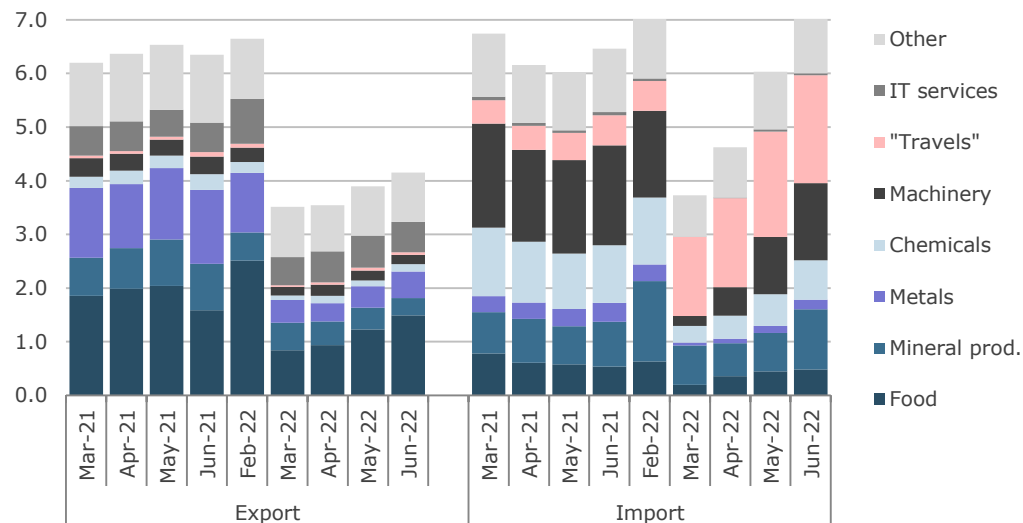
# Trade balance: Exports collapse; imports surge on refugee spending

The aggression heavily affected Ukraine's trade balance

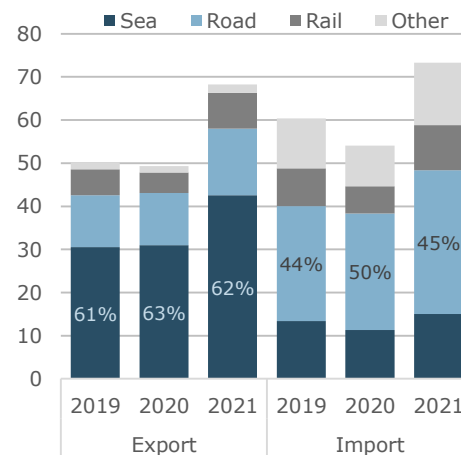
- As over 60% of Ukrainian export in value terms (and about 80% of volumes) were previously delivered by sea, the blockade of Ukraine's seaports resulted in the immediate crash of exports (mostly commodities). As a result, exports of food (mostly grains) and mineral products (mostly iron ore) more than halved in March 2022.
- The quick encirclement and further destruction of Mariupol resulted Ukraine's loss of about 40% of Ukraine's steel capacities, which with the port blockades, contributed to the collapse of metal exports.
- At the same time, the export of IT services demonstrated some growth on a yoy basis in April-June, but still lagged from record-high February numbers. In the recent months, IT has become the second biggest export item after food.
- While goods import also fell sharply just after the Russian invasion (due to state restrictions imposed at the war's start), it recovered quickly in the following months and has outpaced goods export since May. Most imported goods were delivered by road to Ukraine, and thus faced no great logistical bottlenecks from the Russian invasion.
- The surge in overall imports was thanks to "travel services purchase" (which is spending of Ukrainian refugees abroad). This item brought Ukraine's total import in June to the last year's level and caused a huge trade deficit.
- Machinery imports, after the fall in March (industrial machinery deliveries collapsed), recovered quickly in the consequent months, which we relate to increased heavy weapons imports, as well as the massive import of cars as soon as the government temporarily canceled high car import charges.
- Imports of mineral products (mostly fuel) increased yoy in June, mostly due to a price surge for energy commodities and restored supplies.

**Ukraine's trade balance became deeply negative in April-June. We expect this will slightly current in coming months, as grain exports are growing with the sea convoys and fuel imports will decline as the market has been balanced. But no major improvement can be expected, so far.**

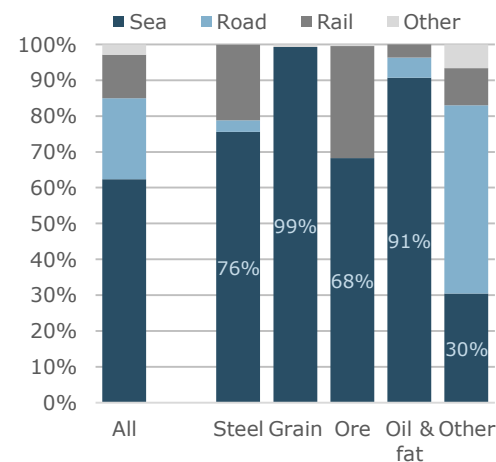
External trade of goods and services, USD bln



Goods delivery by route, USD bln



Structure of goods exports in 2021, USD





# Balance of payments: NBU's fixed exchange rate costs a lot of reserves

Ukraine's balance of payments have significantly changed since Russia's large-scale invasion, with large outflows (via net imports and withdrawals of money by private investors) not being covered by jumps in inflows due to heavy international support.

## Key inflow channels

- The only item that **remained intact** is salaries for Ukrainian employees from abroad, and they served to preserve a good inflow of hard currency.
- **The strongest source of hard currency inflow** were the **government's increased borrowings and grants provided by Western partners** - the latter caused the surge of secondary incomes of the C/A. Such inflows, however, **bypassed the ForEx market and thus did not help to balance it**.
- Also, **limits on hard currency withdrawal** by businesses resulted in decreased "investment income" outflows (debt servicing and dividends).

## However, all the above did not prevent heavy outflows of hard currency via the following:

- Worsened trade balance (as discussed on the previous slide).
- Trade loans item of the financial account. The outflow was most remarkable in March and April, which the NBU explains by broken supply chains and the failure to deliver the ordered goods to Ukraine. However, the outflow did not stop in the consequent months too, which might be related to the outflow of capital from Ukrainian business bypassing the hardened regulations.
- Another strong outflow channel was the withdrawal of foreign cash from banks. This is likely related to Ukrainian individuals attempts to bypass tough currency regulations.

## Inefficient banking regulation intensified the outflows:

Following the Russian invasion, Ukraine's central bank (the NBU) fixed official UAH/USD rate at the pre-war level of 29.3x. This rate was applied to the purchase of hard currency by importers (those supplying critical import items only) and sales of hard currency by exporters.

At the same time, the free-market exchange rate (cash rate) was between UAH 34 and UAH 37 per USD in March-June. In this way, by selling dollars at the official rate, exporters were losing up to 25% of market value of dollars. Also, the NBU introduced limits on exchange rates offered by banks, which resulted in large differences between the official rate, rates in the banks and cash exchange rates. All this resulted in:

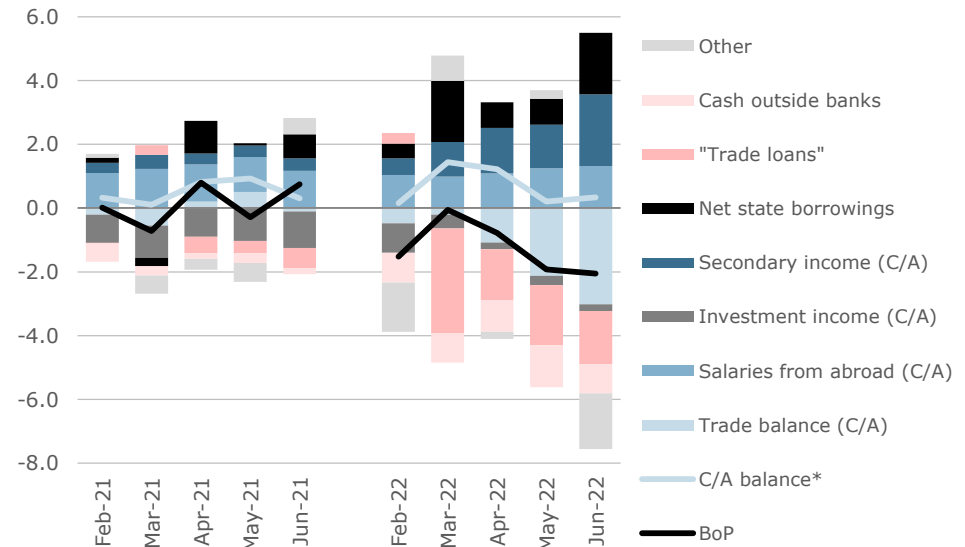
- Reluctance of exporters to bring hard currency to Ukraine, widening of "trade loans".
- Withdrawal of foreign cash from banks by individuals for the purpose of arbitrage.

## As a result of weak BoP:

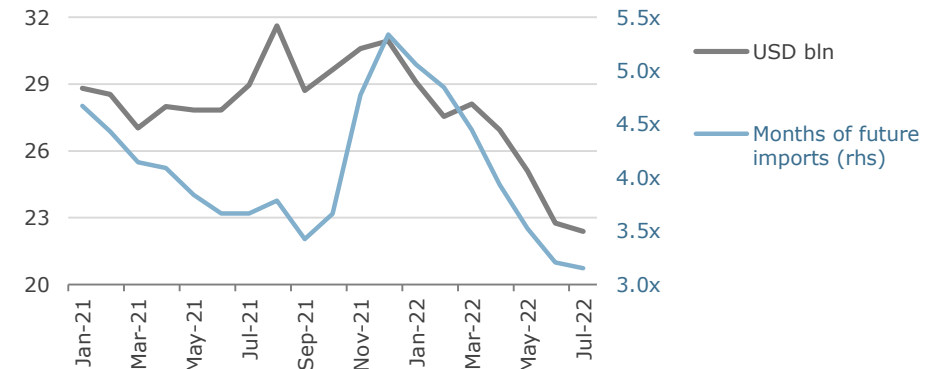
- A deficit of foreign currency emerged at the interbank exchange.
- The central bank had to spend over USD 11.2 bln for ForEx interventions in March-June 2022 to support its inadequate UAH/USD rate.
- This resulted NBU's gross international reserves declining to USD 22.8 bln as of end-June (down 17%, or USD 4.8 bln, compared to end-February).

Having finally recognized the new external trade reality, the NBU decided on July 21 to correct the fixed official UAH/USD rate by 25%, from 29.25x to 36.57x. This decision allowed it to balance the ForEx market in late July, and it should help the NBU to preserve its gross reserves in future months.

## Balance of payments, USD bln



## Gross NBU reserves



# Inflation under administrative control, monetary measures not helpful

Ukraine's consumer inflation continues rising since early 2021 and started speeding up since Russia started its war. In July, reported **annual CPI reached 22.2%**, and this is not likely to be the peak.

Real consumer inflation is higher, if adjusted for statistical distortions:

- This year's CPI is calculated using the consumer basket of the unique year 2020 (distorted by COVID-19 quarantines)
- Consumer preferences have changed even more since the invasion, so the weights used in CPI calculations cannot be adequate.

Meanwhile, the reported inflation could have been even higher if not for the government's bans on utility price growth and efforts to decrease fuel prices. Thus far, utility prices for households have been fixed at the pre-war level for the entire period of the war (martial law) plus six months.

The NBU forecasted in July that CPI would peak at about 31% yoy in the end of 2022. This forecast looks valid even though some changes happened since its publishing:

- The NBU increased the fixed exchange rate of dollar by 25%, which should add some 2-3pp to the CPI number by year-end.
- The parliament has fixed utility rates for households, which will limit further inflation growth.

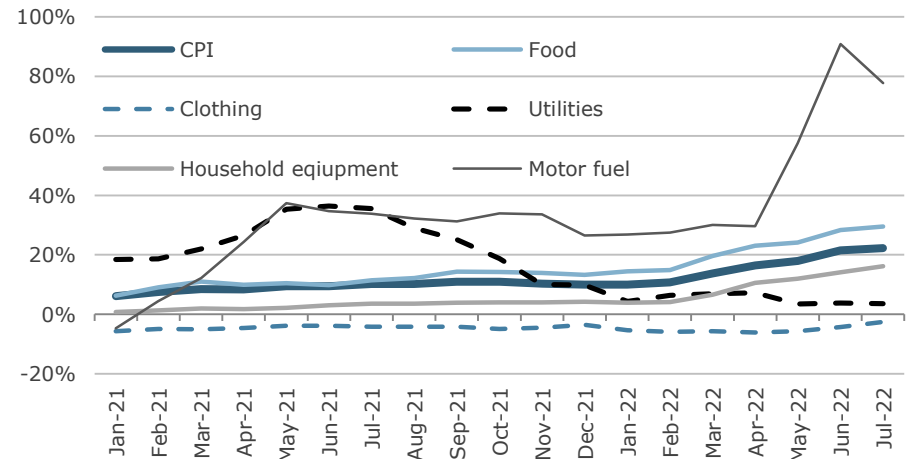
Another risk for CPI to grow further is the NBU's and Cabinet's initiative to introduce a 10% charge from imports. This initiative is yet to be supported by the parliament, while we see its chance as solid.

All in all, we see the **end-2022 official consumer inflation at the level of 33-36%**.

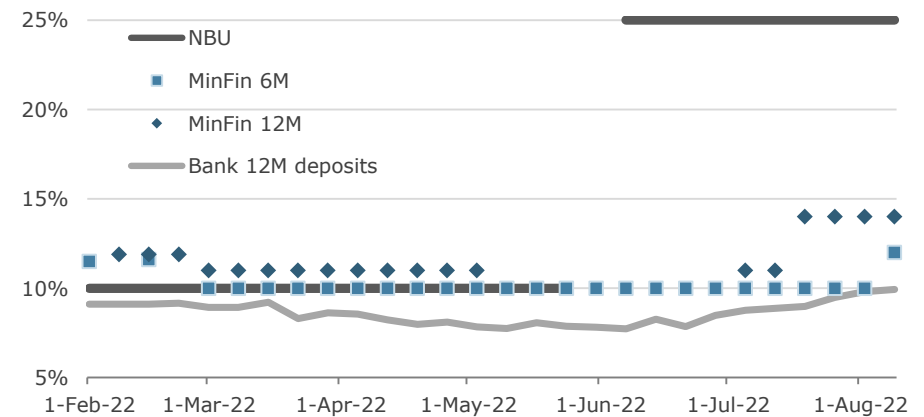
**As an attempt to show its determination to fight the inflation**, the NBU hiked its key rate from 10% to 25% in early June. The move did not help to increase the "costs of money" much in Ukraine, as local banks and Finance Ministry were reluctant to increase interest rates on their liabilities (deposits and government bonds).

**Only in late July, some progress with "monetary transmission"** was observed: placement rates of mid-term government bonds went slightly up. However, the increase was not big enough to make the bonds attractive for the market. Local currency MinFin bonds, therefore, remained more a "charity" instrument for investors, while the NBU remained a key buyer of state bonds.

**CPI and its selected components, yoy**



**Interest rates**



# State budget: Surge in expenditures amid own income weakness

Since the beginning of full-scale war in Ukraine, state budget expenditures started growing quickly, and were 2x higher yoy in June, mostly due to:

- Defense and security expenses being up more than 6x yoy (and almost 9x compared to January 2022) in June, including an increase of payments to Ukrainian defenders by over 7x yoy.
- Social expenditures (including support for those having lost their jobs and support to internally displaced persons) doubled yoy.

At the same time, preliminary data suggests that in July, budget expenditures decreased 27% m/m, which is likely related to a significant cut of security and defense expenses. Such expenses should have decreased by at least 1/3 compared to June, which does not look sustainable, and is likely related to under-performance of budget incomes.

**Total increase of the budget expenditures was 66% yoy in 7M21.**

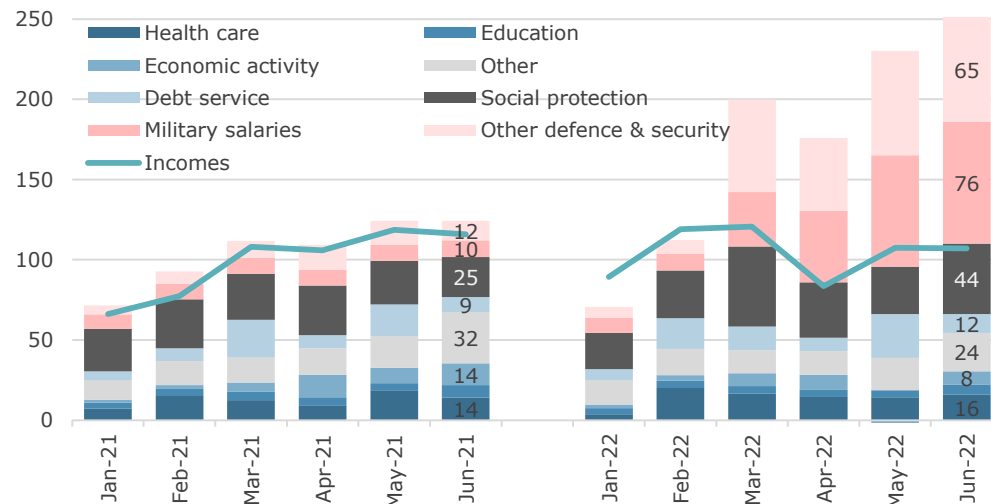
**Revenue of the state budget was 18% more yoy in 7M22.** This growth became possible due to:

- Increase of international grants for the budget support from nearly zero before the war to 20% of total budget revenue (and 45% of revenue in July). Without the grants, budget revenue would decrease by 5% yoy in 7M22.
- Abnormal surge in proceeds from domestic VAT which happened in July.
- An increase of dividends from state companies and the National Bank by 26% yoy as the last year was pretty strong for the state sector.
- A 64% yoy increase in resource production royalties on higher gas tax rates and higher prices.

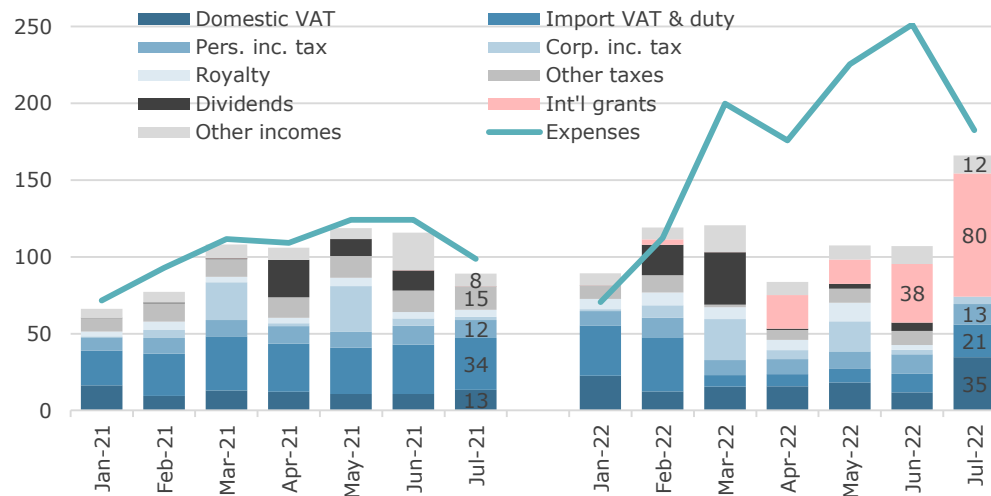
As a result of higher expenditures, the state budget deficit widened in 7M22 to:

- UAH 412 bln (USD 14.1 bln), or 8x higher yoy
- UAH 572 bln (USD 19.5 bln), or 11x yoy, if we exclude international grants.

**Monthly expenditures of state budget, UAH bln**



**Monthly incomes of state budget, UAH bln**



# State budget: About 2/3 of payments to be covered by debt and grants

Here we present total inflows and outflows of the state budget, including debt flow:

In the last four months, own budget incomes (taxes, non-tax incomes excluding international grants) covered only 24-44% of all the budget outflows, with the rest being financed by new state debt and international grants. As a result, in 7M22:

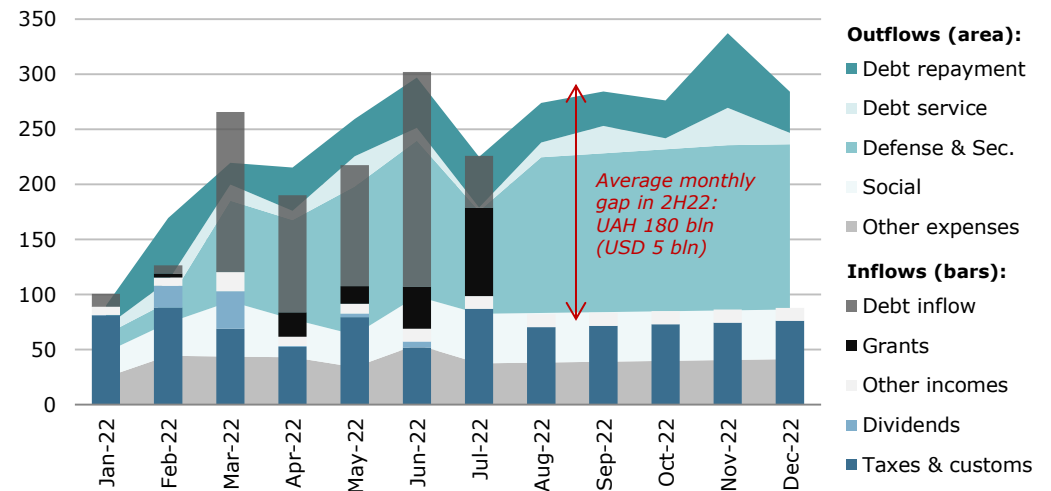
- About 11% of budget inflows were international grants (UAH 160 bln, or USD 5.5 bln).
- About 43% of budget inflows came from new debt (UAH 614 bln, or USD 21.0 bln), including UAH 212 bln of new international debt (see more details on the next slide).

In 2H22, MinFin's own incomes (excluding international support and debt financing) will be about UAH 520 bln (USD 14.2 bln). This is about 30% of the budget's total outflows, which we estimate at UAH 1620 bln (USD 44 bln), providing security and defense expenditures in the rest of the year will be comparable to May-June level and the government won't pay USD 1.6 bln to Eurobond holders.

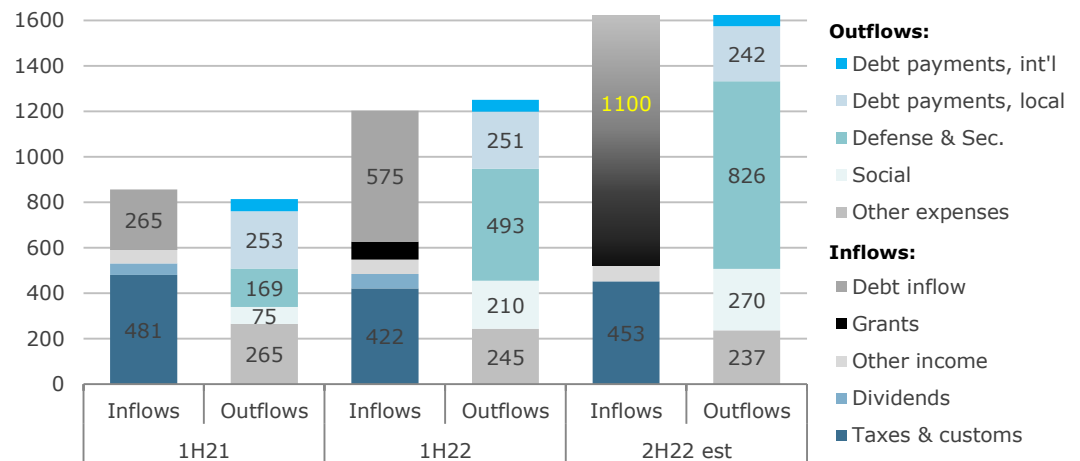
- This suggests that, to cover all its expenditures (including smooth debt service and repayment, but excluding Eurobonds), the state budget will have to find somewhere about UAH 1100 bln (or USD 5.0 bln monthly) – in the form of loans and grants.
- Clearly, grants are preferable, as large debt inflow will only increase the budget's mid-term sustainability risks.
- If international support will be insufficient to cover the state budget's needs, the government will have to continue relying on financing from the central bank.

Among the internal possibilities for a budget revenue increase is a plan by the government to introduce a 10% tax/charge on some or all imports. This measure, if approved and implemented in full, could decrease monthly budget's financing gap by about USD 0.5 bln (or 10%).

Monthly flow of state budget (incomes, expenses and debt flow), UAH bln



Semi-annual flow of state budget, UAH bln



# International support of state budget is growing ...

Since Russian massive invasion in late February and related increase of MinFin's fiscal gap, key sources of financing it were, as of beginning of August:

- NBU's purchase of state bonds (net UAH 246 bln, or USD 8.3 bln),
- International loans (net USD 6.9 bln),
- Grants from other governments and institutions (USD 5.1 bln).

Meanwhile, the local bond market failed to be a source of support, as other than the NBU "investors", in the best case, rolled over their existing papers.

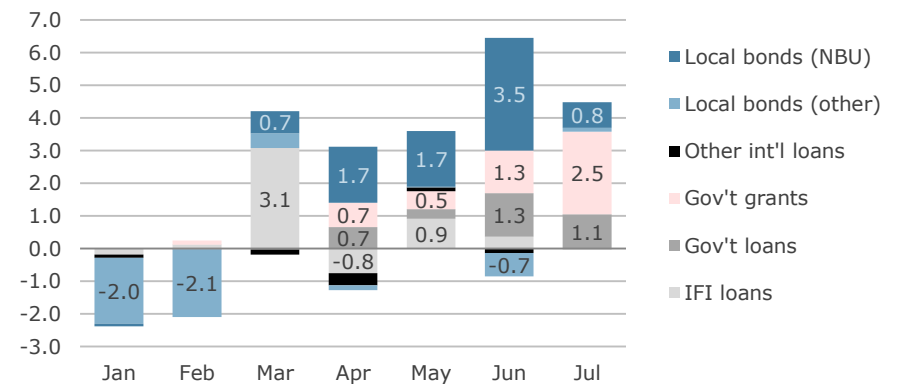
According to the Finance Ministry, it received international commitments to get USD 28.2 bln support as of now, which is a good achievement. Of that amount, USD 14.0 bln are yet to be disbursed. As we concluded above, this would be enough to cover about three months on MinFin's financing gap.

Good news is that international support was on the growing trend over the last three months, and it is especially encouraging that:

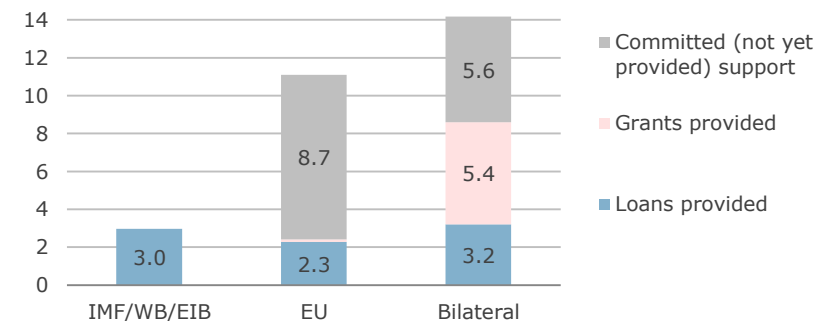
- Amount of the grants support was growing fast, which allows Ukraine to limit growth of state debt.
- Foreign currency inflow, if continues, will allow the government and the NBU to balance ForEx market without significant loss to gross international reserves.

However, extrapolation of the international support trend into the future would be too naïve. Timing of the new international support is not clear, which is a constant headache for MinFin and a big impediment for Ukraine's planning of state expenditures for any meaningful period.

**Net financing of Ukraine government in 2022, USD bln**



**Gross external financing of Ukraine government since Feb. 24, USD bln\***



# State budget: Eurobond restructuring helps a bit

The possibility of the Ukrainian government's initiating debt restructuring talks is being discussed since Russia's massive invasion in late February.

On July 20, the government approved a decision to offer a restructuring deal for the holders of international bonds, and the offer has been approved by the creditors on Aug. 10.

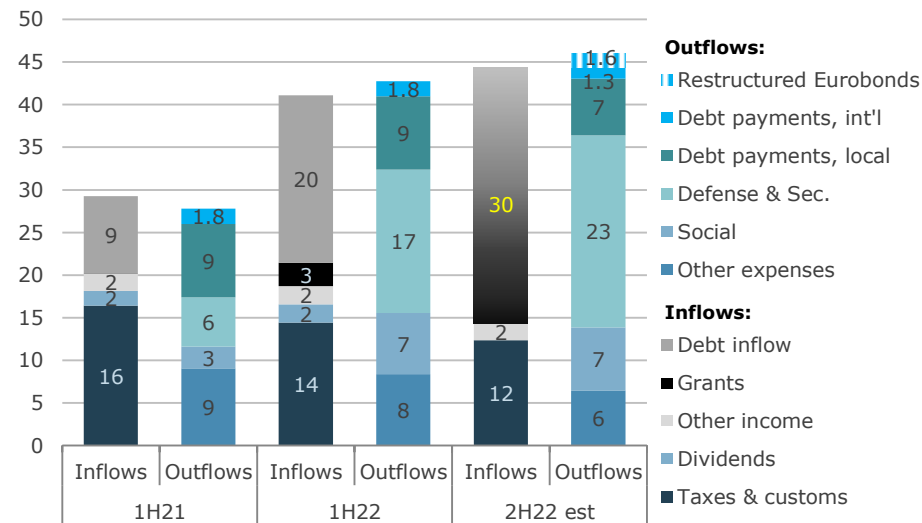
### The restructuring is justified by the following:

- As can be seen on the upper chart, most state budget outlays for 2H22 will be financed by loans and grants (from IFIs and western governments). By receiving such support, MinFin should use money responsibly, e.g. in the most efficient way. Servicing private international debt is not this way.
- Restructuring consent is a contribution of the Western world to Ukraine's fight against unprecedented aggression since WWII. It will decrease MinFin's need to seek external debt/grant financing by USD 1.6 bln in 2H22 (or by 5%) and by total USD 5.0 bln in the next 24 months
- The government's decision to initiate restructuring seems to have been well coordinated with the recent NBU decision to increase fixed exchange rate of dollars by 25%. If the government continues servicing its international debt, this would require more budget outlays for this, in local currency terms (plus UAH 11.5 bln, or USD 0.3 bln in August-December). In other words, the intention of the government to restructure Eurobonds made it easier for the NBU to devalue hryvnia.

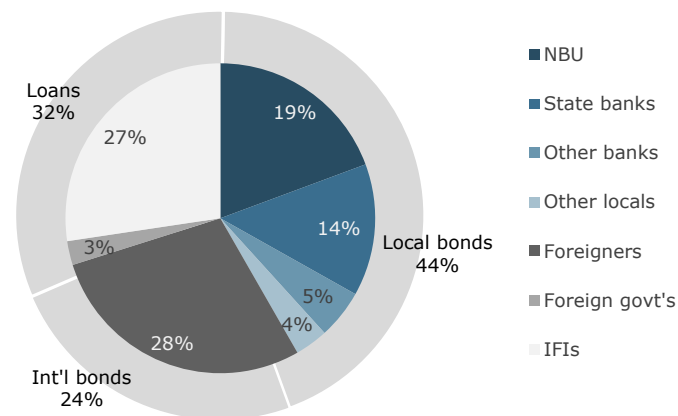
**Restructuring of local sovereign bonds, meanwhile, is very unlikely, at least for those bond issues which are floated on the market.** A significant portion of such bonds is held by state banks, meaning their restructuring could directly affect their financial position, and then the state budget.

**Also, MinFin might try to ask for some type of restructuring of those local bonds held solely by the central bank (NBU) – as two government institutions always have a chance to come to a deal.** Notably, over the last six years, the MinFin has already restructured its debt to the NBU.

Semi-annual flow of state budget, USD bln



State debt breakdown by instrument and lender, end-June 2022



## Impact: Eurobond Issuers



# Sovereign restructuring: Compromise with bondholders reached too easy

## The Ukrainian government has prepared investor-friendly restructuring terms on its Eurobonds:

- No principal haircuts or decrease in coupon rates.
- Postponement of each bond's principal payment by two years.
- Two-year grace period for coupon payments, starting the nearest scheduled payment (August 2022). All unpaid coupons will be capitalized, charging bond's initial interest rates on the capitalized amount.
- Capitalized coupons can be repaid any time in any amount during the two-year grace period. On the period's expiration, capitalized coupons are either repaid in full or added to the bond's principal.

The conditions look very friendly to creditors. The deal will decrease MinFin's outlays for the next 24 months by USD 5 bln, which is compared to one month of Ukraine's fiscal gap).

Under the same conditions, Ukraine is restructuring state-guaranteed issues of **Ukravtodor** and **Ukrenergo** bonds.

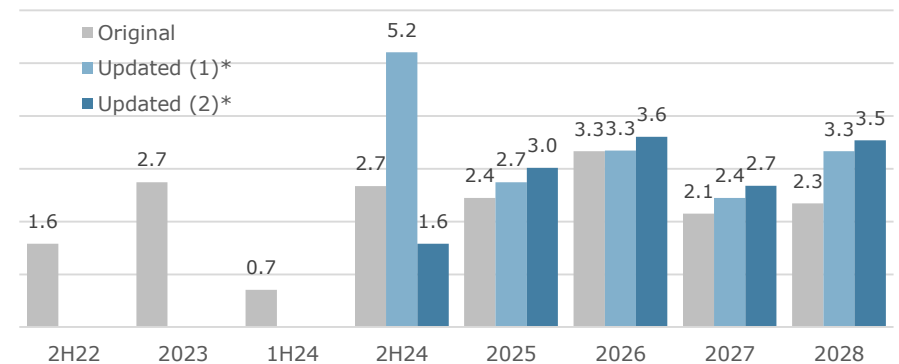
Later on, another state company, **Naftogaz**, offered identical Eurobond restructuring conditions, even though its bonds are not state-guaranteed. Our opinion on this is offered on slide 43).

## Together with Eurobond restructuring, the government successfully changed conditions of Ukraine's GDP warrants:

- Limit the payment under the warrants for the year 2023 to 0.5% of Ukraine's GDP of this year (currently, the payment amount is not limited, so, in case the NBU's forecast of 5.5% real growth is implemented, Ukraine will have to pay 0.7% of 2023 GDP under the warrants).
- Postponement of the scheduled payment under the warrants in May 2023 to August 2024, paying 7.75% annual rate for the time of the delay.
- The warrants will be canceled one year later than initially agreed (in May 2041).
- MinFin is granted a call option on the bond at par value in 2024-2027.

**The last condition is a valuable gift to MinFin, so we are surprised that the investors easily accepted the offer.**

Payments on sovereign Eurobonds, USD bln



## Thoughts of security situation and investment climate

Ukraine's theoretical possibility to squeeze the Russian army from all or part of the occupied territories won't result in the end of the war with Russia.

The key problem so far is – Russia has granted itself a “right” to attack Ukrainian territory (whether by ground-based fire, or by airstrikes). If there is no change in Russia's political course and its elites, nothing can force the aggressor to give up this right. The signing and implementing by Russia of any peace agreement amenable to Ukraine is simply impossible under the current regime.

The radical change of Russia's political course will imply political instability and the risk of a split of the empire. The latter looks very risky for the West, as this might significantly strengthen China, who is considered as the West's enemy #1.

Although we do not rule out scenario of a near-term (one-two years) regime change in Russia or its split, this scenario, thus far, does not look like the base-case:

- Possibly, intensifying sanctions against Russia (especially in financial and energy sector) will bring this scenario closer to reality.
- At this time, however, we do not see the West as ready to go firm with such a scenario. At the same time, we are sure such scenario will be unavoidable in the long-run.

As long as a political regime is sustainable in Russia, Ukraine remains under constant threat of attack. To minimize security risks for Ukraine in the short- and mid-term, the nation could:

- Use the experience of Israel and build a massive infrastructure to defend against air strikes, as well as equip its army enough to demotivate Russia against new invasion. This will require enormous financial contribution of the West and can be done only in the long-term.
- Receive some sort of security guarantees from the West. This does not look sustainable, as any “guarantees” discussed now will be weaker than “the NATO's article 5”. That means, such guarantees won't work.

## All this means for Ukraine's existing Eurobonds:

- Even in case of Ukraine's early victory, the radical improvement of the security situation (and some return of an affordable investment climate) does not look possible in the short- or mid-term. While Russia's collapse can happen sooner than anyone expects, counting on this scenario would be too naïve right now.
- If so, Ukraine will remain out of the capital markets (including fixed income market) for many years, meaning the motivation of the issuers to keep warm relations with bondholders looks weak. So will be ability of the issuers to use the obvious source of Eurobonds' repayment: their refinancing via new issues.
- That means, existing Eurobond issuers can only fully repay their bonds in the near future if:
  - such bonds are a negligible part of their liabilities/assets or cash flow,
  - the issuers have excess cash or firm sources of refinancing,
  - they are too naïve and expect a quick return to “normal life” in Ukraine.

Therefore, **for many Ukrainian Eurobond issuers, it is a reasonable option to ask Eurobond holders to postpone notes' maturity – the way Ukrainian government initiated.**

**Nevertheless, there are five issuers which are likely to continue servicing their bonds.**

The experience of the massive Eurobond restructuring in 2014-2015 is indicative. Of all the companies with Eurobonds outstanding as of early 2014, the bonds that were redeemed were only:

- Ukraine (and state-guaranteed Naftogaz) in 2014, due to: a) the naïve assumption that the economic situation would improve as soon as the army manages to liberate the eastern territories, and the expectation that Ukraine would come back soon to an “investable” stance; b) fear of default, as the word “default” has an extremely negative connotation in the post-Soviet world. Such repayments only intensified the financial crisis and the currency shock by the fast emptying of Ukraine's international reserves.
- MHP managed to redeem its bond on time (April 2015), primarily due to: a) its thorough debt management policy: it had bought back more than half of the bond in 2013 via the issue of a new and bigger one, b) available external financing that had almost covered the repayment.

All the other issuers followed the restructuring process or defaulted/collapsed.

# Corporate bond issuers: Who is more likely to pay on time

While the war at home is a perfect excuse for asking for a debt postponement, we see that not all the Eurobond issuers will have such a need or motivation. Below we offer our ranking of the issuers' fundamentals to show which of them were affected by the hostility less, and thus are able to further service their debt. We include in our analysis:

- Apparent effect of the war on their cash-generating assets (whether they have been damaged, or located on the occupied territories, or very close to Russian border or the frontline: see slide 27, as well as company profiles below for more details).
- Assessment of the sensitivity of their operations to the closure of seaports.
- Rough estimate of companies' revenue change (in functional currency) as of now, as compared to pre-war levels
- Existence of large debt repayments in 2022 and 2023 that can trigger default or require soon active talks with creditors on restructuring.
- In this analysis, we ignore the companies' credit ratings, as they mostly reflect the issuer's attempts to restructure their debts rather than the fundamentals.

## Based on the above criteria, we conclude that:

- DTEK Oil & Gas, VF Ukraine, MHP, Ukreximbank and Oschadbank are fundamentally stronger than the Ukrainian government, or Ukraine on average.
- Naftogaz, Ukrainian Railways, Kernel, Interpipe and DTEK Energy have same or more than the Ukrainian government fundamental reasons to ask for debt restructuring. Naftogaz has already approached the creditors, and the likelihood that the others will have to restructure their debt looks high right now.
- Metinvest and DTEK Renewables are in deep trouble now, so if there is no radical change with the war, their debt restructuring looks unavoidable.

**We see the following companies have a good chance and/or reason to continue servicing** their bonds, unless a significant escalation of the war happens (which we do not expect):

- **DTEK Oil & Gas**, whose gas producing assets were not affected by the war (though, some others had). The company enjoys its best times in terms of cash generation, and thus has few excuses to avoid payments to creditors. The only risk at this stage is that the company's owner will decide to first support his other businesses by using its cash.
- **Oschadbank** and **Ukreximbank** which have already repaid over 80% of their Eurobonds and feel no need to keep the rest outstanding, as the bonds charge times higher interests than the banks' other foreign currency liabilities.
- **VF Ukraine** whose mobile telecom business is not going to suffer much from the war. Its international owners, who financed its acquisition with its Eurobond issue might have a desire to maintain good relations with global creditors.
- **MHP** whose operations also did not suffer much, might return to normal servicing of the bonds after it received a short break from bondholders.

## Ranking of Eurobond issuers as compared to sovereign

	Assets under risk*	Output dependence on seaports	Revenue change since invasion	Sizeable debt due in 2022-2023	Score, vs. sovereign
<b>Ukraine</b>	<b>15%</b>	<b>Medium</b>	<b>-35%</b>	<b>Yes</b>	<b>=</b>
Ukravtodor**	18%	No	n/m	No	=
Ukrenergo**	18%	No	n/m	No	=
Oschadbank	12%	No	n/m	No	+2
Ukreximbank	16%	Low	n/m	No	+2
Naftogaz	17%	No	n/m	Yes	=
Ukrainian Railways	25%	High	-45%	No	-2
DTEK Oil&Gas	0%	No	+	No	+4
VF Ukraine	12%	No	-10%	No	+3
MHP	2%	Medium	-20%	No	+2
Interpipe	13%	Medium	-45%	No	=
Kernel	3%	High	-50%	Yes	-1
DTEK Energy	25%	No	-45%	No	-2
Metinvest	49%	High	-70%	Yes	-4
DTEK Renewables	100%	No	-85%	No	-5

**Among the biggest shifts** that the war brought to Ukrainian companies, in addition to the security issues, is that **large export-focused companies**, which had been treated better than those focused on domestic market, **have lost such superiority status**.

Instead, many companies focused on domestic market (although being exposed to currency risk, that is obvious in the situation of increased uncertainty), appeared to be less fragile.

# Corporate bond picking

In the current uncertain situation, different Eurobonds of the same Ukrainian company are trading in a narrow price range, even though bonds' duration can differ significantly. The market, therefore, is generally ignoring bond yields, instead "targeting" certain price levels. To develop this market's finding, we offer our approach to set price targets to mid-term Eurobonds.

Based on fundamental scores presented above, we offer the following approach for corporate bond pricing (see also the table):

- We presume that mid-term bonds of the issuers with **stronger fundamentals and risk profiles** than the Ukraine average (as derived on the previous slide) should trade with **YTM's below or comparable** to level of mid-term sovereign bonds, or 30%-40%.
- Consequently, the bonds of the issuers with **comparable** to Ukraine or **relatively weaker fundamentals** should offer higher yields, or at least 40% (and up to 100%).

With this approach, we conclude that:

- Bonds of DTEK Oil & Gas (DTEKOG), Vodafone Ukraine (VODUKR) and state banks (OSCHAD, EXIMUK) have an upside potential.
- Bonds of Naftogaz (NAFTO) and Ukrainian Railways (RAILUA) also look underpriced. The restraining factor, however, is that their prices are comparable to those of sovereign bonds.
- Bonds of MHP (MHPSA) and Interpipe (INTHOL) look fairly priced.
- Other mid-term bonds looks overpriced.

**Out top picks** are the notes of fundamentally stronger issuers with an upside potential:

- Eurobonds of Vodafone (**VODUKR**) and DTEK Oil & Gas (**DTEKOG**),
- Eurobonds of state banks (**OSCHAD, EXIMUK**). The bond's key problem is poor liquidity as they have been amortized by about 70%.

## Bond pricing, Aug. 17

	Current price, % of par	Rating vs. sovereign	"Fair" yield	"Fair" price, % of par
DTEKOG'26	40%	+4	30%-40%	41%-52%
VODUKR'25	51%	+3	30%-40%	50%-60%
OSCHAD'25	55%	+2	30%-40%	73%-80%
EXIUMUK'25	32%	+2	30%-40%	71%-79%
MHPSA '26	43%	+2	30%-40%	39%-50%
<b>UKRAIN'26-'29</b>	<b>22%-26%</b>	<b>=</b>	<b>34%-54%</b>	<b>22%-26%</b>
INTHOL'26	40%	=	40%-50%	32%-41%
NAFTO'26	23%	=	40%-50%	30%-39%
KERPW'27	38%	-1	40%-50%	22%-29%
RAILUA'26	22%	-2	50%-60%	24%-30%
DTEKUA'27	22%	-2	50%-60%	14%-19%
METNV'26	42%	-4	55%-65%	24%-30%
DTAREN'24	34%	-5	80%-100%	23%-30%

# Security situation: Companies' assets and operations

## Front lines (Russia) and +25 km

- Severe risk of asset damages by artillery fire
- Logistical problems.
- Severe risk for human life - impossibility to do usual business operations.

## Occupied territories

- Impossibility to do usual business operations due to danger for human life and broken supply chains.
- Risk to lose valuable assets due to looting, erratic or aimed fire, or damage in the course of possible counter-attack.
- Threat of looting all commodities stored there.

## Locations 25-100 km from front lines

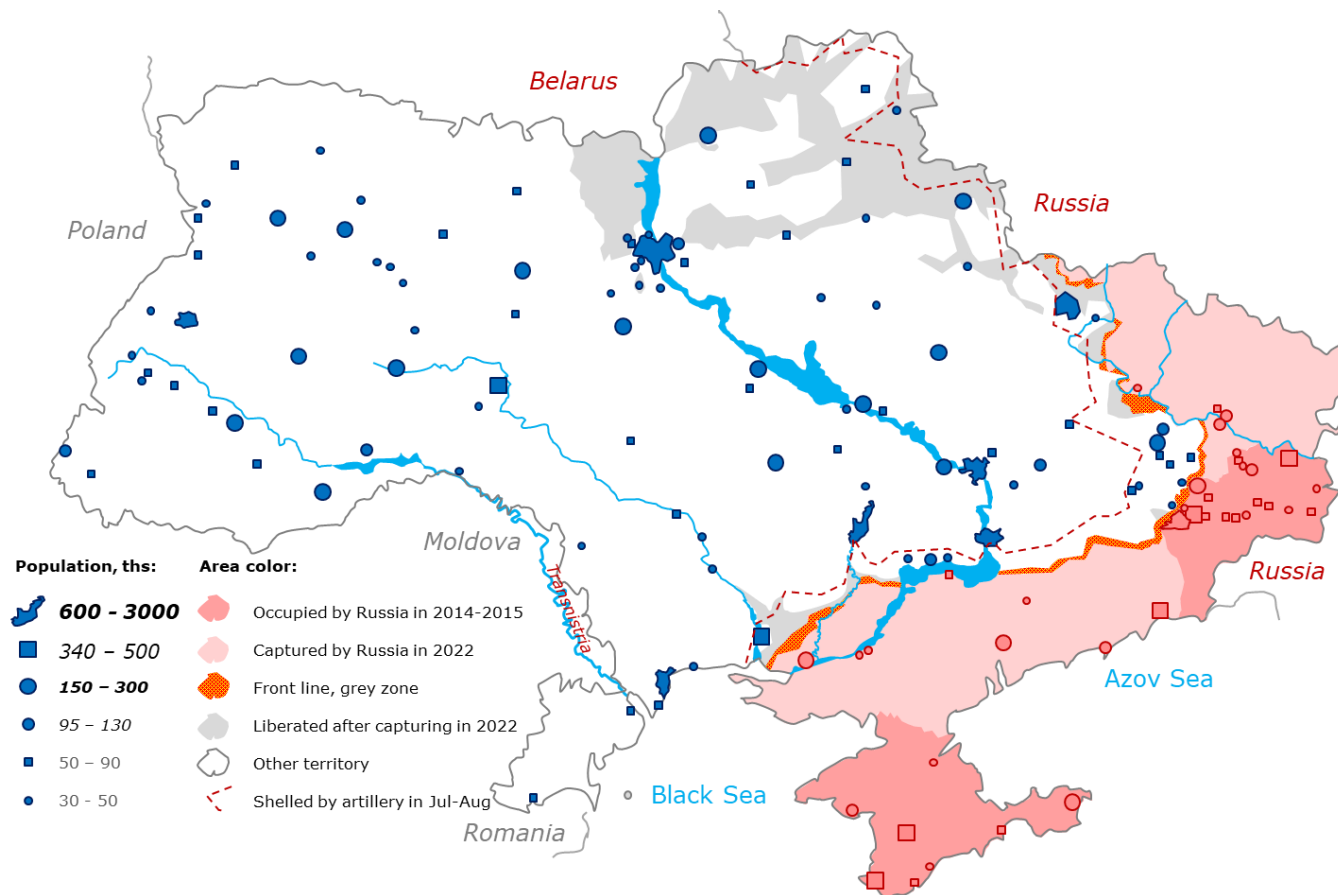
- Risk of damage by erratic fire from long-range artillery.
- Risk for human life - impossibility to do business as usual.

## Liberated territories

- Risk for farming operations due to mines.
- Some assets could have been damaged during the battles.

## Other territories

- Risk of rocket strikes of valuable (strategically important) assets: energy (fuel, electricity), valuable machinery and logistical infrastructure.
- Some risk of erratic rocket fire: risk for human lives (possible lack of qualified personnel) and asset damage (lack of investments).
- Risk of frontline movement closer to the territories.



## Eurobond Issuer Profiles

# DTEK Energy: Holding ground

## Company profile

DTEK Energy is Ukraine's largest coal and power holding responsible for the production of 75% of the steam coal and 18% of the electricity in Ukraine in 2021, when it operated eight thermal power plants (TPPs), out of 12 in Ukraine, with total coal-fired capacity of 11.7 GW. In 2017, the holding lost control over three mining companies and one thermal power plant in the occupied regions of eastern Ukraine, which significantly damaged its coal and power chain. In the current hostility, two more TPPs appeared occupied, with no significant effect on other assets/chains.

## Slowly recovering before the war

As with many other commodity and energy companies, the year 2021 was successful for DTEK Energy. However, the improvements were not radical as the company's Net debt / EBITDA ratio reached about 3.7x as of end-2021 (vs. 6.2x a year before).

## Effect of Russian aggression: loss of assets, better prices for its products

In the first days of its broad-scale invasion, Russia occupied the locations of two DTEK's TPPs. Among the other six TPPs, two are very close to the front line now (see the next page) and thus are under risk of being damaged. The hostility caused a decline of demand for power in Ukraine, causing a decline of DTEK's power generation, but the company partially compensates the decline by better power prices and increased demand for its coal in the EU. As of mid-April, in about two months since the occupation, Zaporizka TPP (one of the occupied) was still operational, and it is likely to remain so now.

## Ability to service debt remains questionable

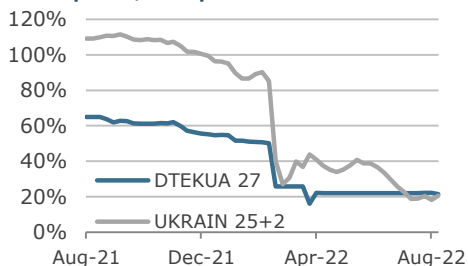
The good news in DTEK's story is that the vast majority of its debt is the Eurobond that matures in 2027, meaning there is plenty of time until it becomes due, and its servicing looks manageable. **The bad news is that even before the hostility, DTEK's ability to smoothly repay its Eurobond at maturity was under question.** The company can take advantage of rapidly increased demand for coal in the EU, it could earn some trading margin on power export to the West, but such benefits won't compensate the worsened operating environment in Ukraine this year.

## Huge room for speculation

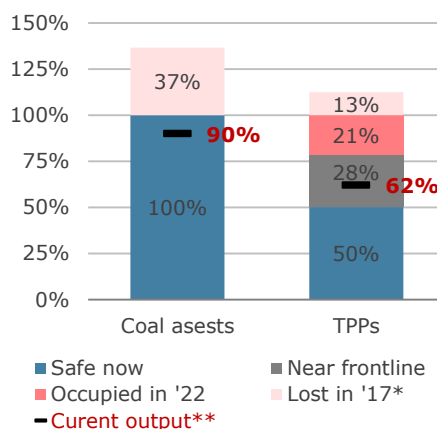
The company has provided no operational numbers since the beginning of war, nor do Ukraine's energy authorities. This makes it hard to understand what is going on with DTEK's operations. Speculations can lead to different conclusions about DTEK's ability to service its debt:

- The 2027 maturity of the bond allows considering as a likely scenario that by that time it will return the assets lost on occupied territories in 2017 (which could significantly increase its coal and power capacities, see the chart).
- Scenario of further loss (or damage) of assets in case of the aggressor's advance in Ukraine (or simply due to targeted air strike in order to undermine Ukraine's energy security, especially ahead of winter) looks also likely.
- Ukraine's potential loss of control over Zaporizka Nuclear Plant (located on occupied territory), as well as a deficit of natural gas (firing heat & power plants) could increase demand for DTEK's coal fired electricity in Ukraine.

## Bond prices, % of par



## Status of assets (100% = 2021 output)



## Although the company got consent from Eurobond holders on a gentle restructuring

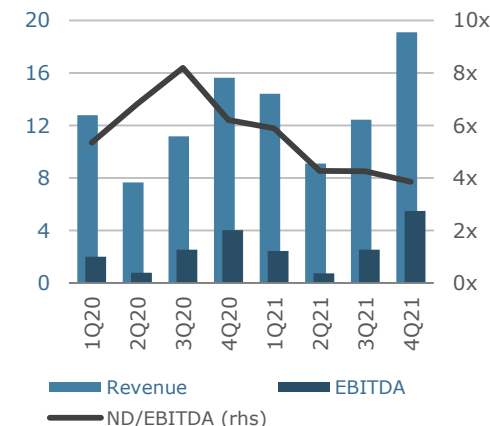
(to pay in two consecutive quarters, in late March and late June, a decreased coupon in cash, 3.5% instead of 7.0%), it decided to not to use this opportunity and paid the June coupon in full, along with the first semi-annual USD 10 mln bond amortization payment. On Aug. 4, it announced that the Sept. coupon will be also paid in full.

This indicates DTEK's cash flow is better than expected in March. Nevertheless, a **risk that the company will have to offer worse terms to bondholders in the mid-term remains high.**

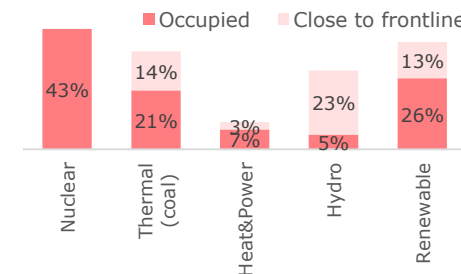
## Bond parameters

Ticker	DTEKUA
Rating (Fitch)	C
Pre-war rating	CCC
Price / YTM	22% / 46%
Maturity	Dec-27
Issue am't., \$ m	1,698
Outstanding, \$ m	1,688
Amortization	\$ 10 m S/A since Jun. '22
Coupon	7.0% Quart.
Cash + PIK coupon option	3.5% + 4.0% (two non-consecutive quarters)

## Selected leverage metrics, UAH mln



## Ukrainian power generating assets that are:





# DTEK Energy: Effect of Russian aggression

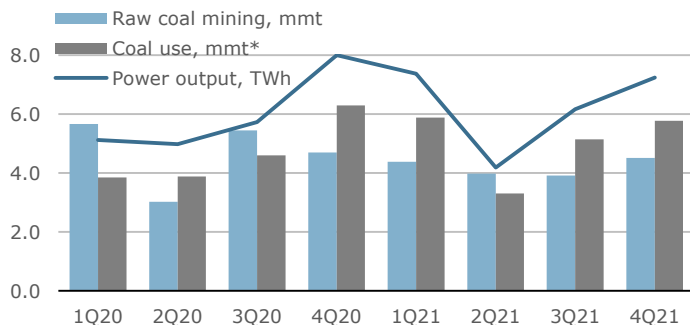
## For DTEK Energy, the war is mostly about risks and uncertainties:

- Its key assets have strategic importance for Ukraine and its energy security. Just for this reason, they are among the top potential targets of Russian air strikes.
- Two of its eight thermal power plants (about 21% of 2021 power output) are left on the occupied part of Luhansk and Zaporizhia regions (the latter is likely to continue being operated by DTEK). Two more power plants (28%) are very close to the front lines (so their situation looks not much better than for Zaporizka). In this way, half of DTEK's generating assets are under threat or uncertainties. At the same time, even in case the company completely loses its access to the four power plants, the four others can partially substitute them (in 2021, their capacities were only utilized by 29%). Therefore, capacity is not a big bottleneck, as long as DTEK's coal assets remain safe and working.
- Another problem is the decline of demand for electricity in Ukraine by about 35% yoy. However, things are not that bad here, as demand for energy is growing rapidly in the EU.

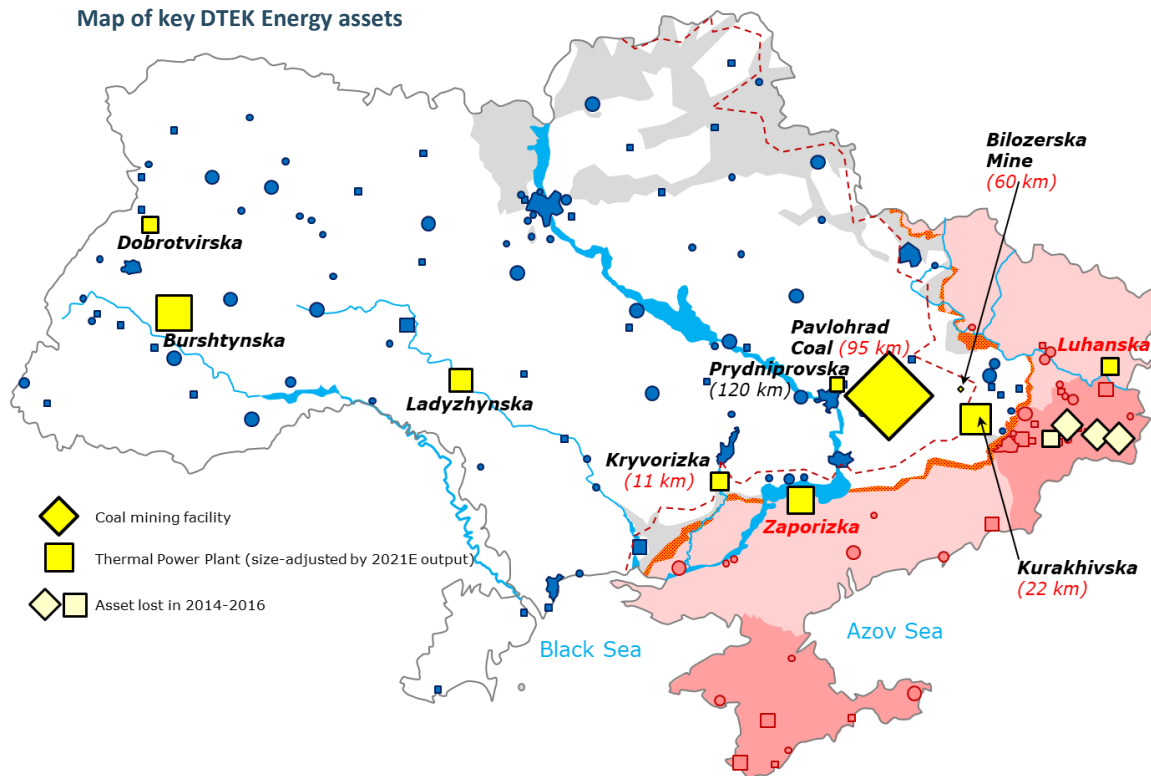
## Good news: DTEK could take advantage of the EU's increased energy demand (in particular, coal and power):

- DTEK's coal assets remain operational (although their location does not look very safe, and there is a constant risk that they would be attacked).
- High power demand in the EU can load its two west-located TPPs compensation effect of power consumption decline in Ukraine.
- The key uncertainty is logistics (for coal) and transmission bottlenecks & state regulations (for power exports).

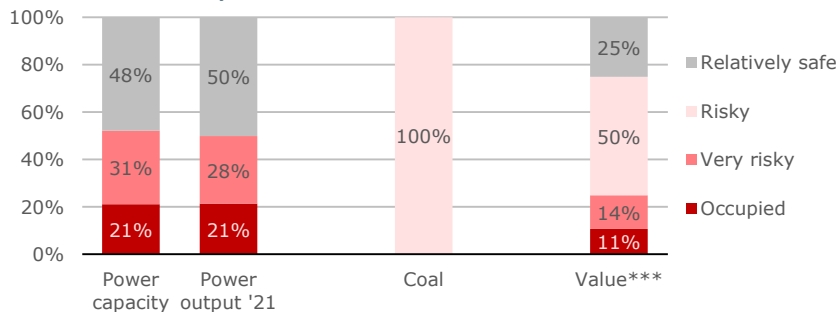
## Key output metrics, mmt



## Map of key DTEK Energy assets



## Asset distribution by locations\*\*



# DTEK Oil & Gas: Reaping fruits of gas shock

## Company profile

DTEK Oil & Gas is Ukraine's second biggest producer of natural gas, as well as a dominant private producer. Its key asset is NaftoGazVydobutok (NGV) where it has a 73% stake and full operating control. Together with other DTEKs, it is a part of Ukraine's biggest business group SCM of Rinat Akhmetov. The company was separated from DTEK Energy together with some obligations to its former parent in 2015. In May 2021, the company issued a Eurobond to the creditors of DTEK Energy as a part of the latter's debt restructuring. As of end-June 2021, the Eurobond, maturing in Dec. 2026 (and amortizing by 12% annually since Dec. 2023), was the only sizeable financial liability of DTEK Oil & Gas.

## Cash-generating assets untouched by hostility

The gas fields developed by NGV, DTEK Oil & Gas' only gas producing subsidiary, are located in the central part of Poltava region, about 125 km from the frontline of eastern Ukraine and the Russian-Ukrainian border. This makes the location safe enough for doing business at the levels seen before the Russian invasion (see the map on slide 33).

Its other subsidiary, NGR, is developing a new gas field in the city of Kharkiv, which is among the most heavily shelled locations in Ukraine. The entity's operations are suspended, which, however, should not affect DTEK's output and cash flow parameters in the short-term.

## Benefits of high gas prices not much curtailed by the increased subsoil tax

With expected output stability and a surge in domestic gas prices, DTEK Oil & Gas is likely to raise its EBITDA about 3x yoy in 2022.

And this is despite Ukraine's parliament introducing a progressive gas production tax since April 2022 (see the table). As DTEK Oil & Gas uses deep wells and has a large share of new wells\* in operation, it enjoys relatively low tax rates. In particular, we estimate that its effective tax will increase from 11% of the tax base under the old rules to about 21% in case tax base is USD 1100/tcm.

There is a risk that the company's effective tax rate will be higher as now the price used as the tax base\*\* will be higher than DTEK's realized price. The market price of natural gas is between USD 700 and 900 per tcm in Ukraine. Since April 22, the tax base depends partially on EU market gas prices, which are volatile this season.

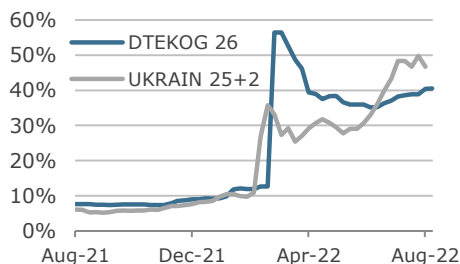
## Balance sheet exposure to related parties is key risk

The company historically has large assets and liabilities with related parties, being a cash cow for its parent groups. As is described in this report, some related companies of DTEK Oil & Gas (DTEK Renewables, DTEK Energy, Metinvest) have bad times now. This company, therefore, could be a donor for the others.

Another risk is that the company does not publish openly its financials and operating updates fresher than 1H21. While its operating performance can be tracked from other sources, the fact that the freshest balance sheet is 13-months old does not add confidence.

We see no reasons for DTEK Oil & Gas to offer any bond restructuring in the current environment. Even though the investment is associated with related party risks, DTEKOG bonds looks like one of the best opportunities in Ukraine's fixed income universe.

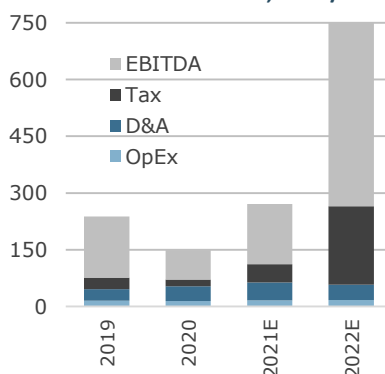
## Bond YTM



## Bond parameters

Ticker	DTEKOG
Rating (Fitch)	CC
Pre-war rating	B-
Price / YTM	40% / 41%
Maturity	Dec-26
Issue am't., \$ m	425
Outstanding, \$ m	425
Amortization	\$50m: Dec-23, Dec-24, Dec-25
Coupon	6.75% S/A

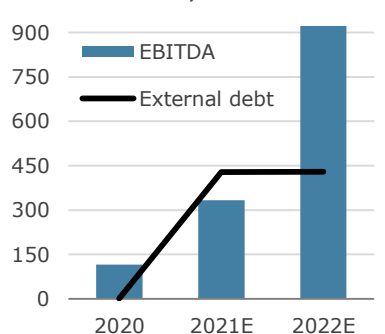
## Gas revenue breakdown, USD /tcm



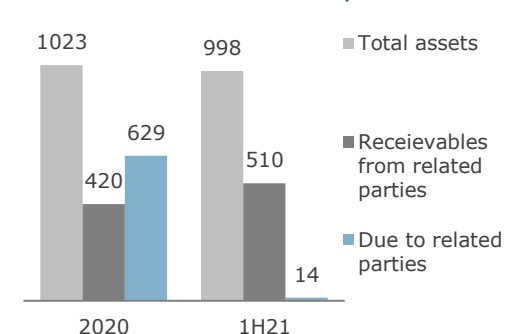
## Rates for gas production tax in Ukraine

	Old wells		New wells*	
	Shallow (<5000m)	Deep	Shallow	Deep
Old rates - applied before April 2022 (% of import price)	29%	14%	12%	6%
New rates (% of selling price)***, depending on the price:				
- If below \$ 150/tcm	14.5%	7%	6%	3%
- If \$ 150-400/tcm	29%	14%	12%	6%
- If above \$ 400/tcm***	\$116+ 65%*Diff	\$56+ 31%*Diff	\$48+ 36%*Diff	\$24+ 18%*Diff

## Debt and EBITDA, USD mln



## Selected balance sheet metrics, USD mln



# DTEK Renewables: In perfect storm

## Company profile

DTEK Renewables is Ukraine's biggest operator of wind and solar power stations. With installed capacity of 950 MW, it accounted for 30% and 7% of Ukraine's wind and solar capacity as of end-2021. It was planning to complete construction of another 500 MW wind farm in 2022. The company was Ukraine's first issuer of green bonds. In February, the company also planned to acquire a wind development project in Romania.

## Political conflict resolved – even bigger conflict emerged

Inefficiencies of power sector regulation and the fast development of renewable energy sources (RES) in Ukraine led to a cash deficit of the Guaranteed Buyer (GarPok), a state operator that buys all the power from RES at feed-in-tariffs. In early 2020, payment discipline of GarPok deteriorated, and the government had to restructure its commitments to RES (size of the tariffs and timing of arrears repayment). By end-2021, most of GarPok's debt to RES had been repaid after another state company, Ukrenergo, issued a Eurobond to finance the deal. Arrears to all RES except DTEK were repaid in November. DTEK was discriminated due to a conflict of its beneficiary owner with Ukraine's president. After the conflict calmed down, DTEK received its payment (about UAH 3 bln, or 37% of its annual revenue) in January 2022. GarPok still owes 10% of 2021 feed-in-tariff to all RES, including DTEK.

While things seemed to have improved for the sector in late 2021 and early 2022, the war changed everything. The hostility affected southern regions at the seashore, where many wind power stations were located (including all the stations of DTEK Renewables).

After the occupation of the southern parts of Kherson and Zaporizhia regions in February, DTEK Renewables lost operational control over all its wind stations and a small solar station (about 72% of the company's annual power output). **For March**, it reported an **80% yoy decline in power production**, which corresponds to such asset losses. It is likely to continue operating only two solar plants located outside the occupied territory. Their location is not safe, however (see the next slide).

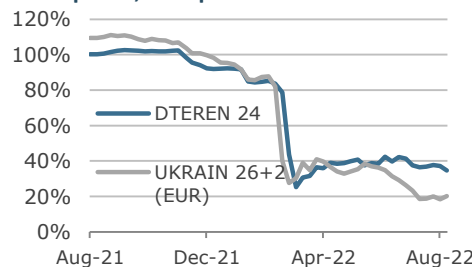
On top of that, GarPok's cash deficit re-emerged. As a result, payments to RES amounted to 15%-22% of their feed-in-tariffs since March 2022. According to DTEK Renewables, it received 17% of feed-in-tariffs in March-April.

**As a result of decreased output and payment level, currently DTEK Renewables is likely to get a payment for electricity equal to about 13-14% of its last year's revenue.**

Thus far, the payment level has not improved, and all the parties are looking for a solution to that. Most likely, the government or state companies will have to ultimately seek debt financing in order to resolve the issue. The timing of such solution is hard to predict now.

**While a theoretical fast de-occupation of southern regions will allow DTEK Renewables to restore its output, it won't make the company's cash generation ability improve much, as thus far the RES are paid less than 20% of their revenue. The company approached Eurobond holders in April to change some bond covenants allowing the holders to get their scheduled payments in April and November. It is likely that the company will offer a new consent solicitation – now with a decrease of cash coupon payments. The key question is – whether it will be ahead of the November 2022 or April 2023 payment.**

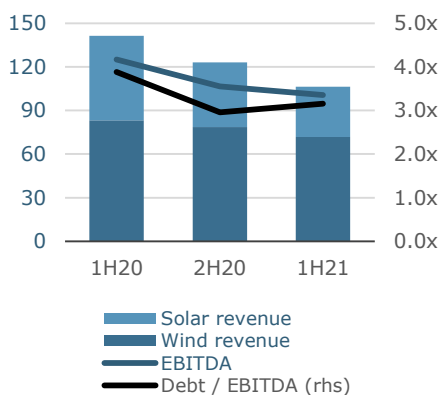
## Bond prices, % of par



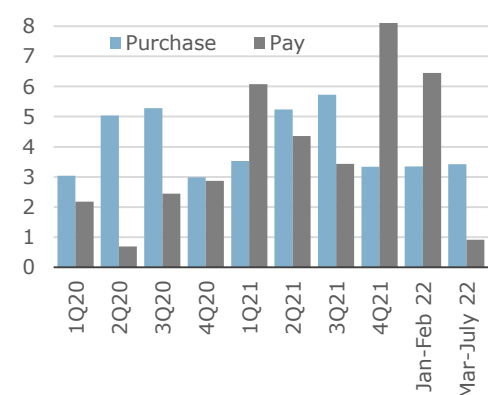
## Bond parameters

Ticker	DTEREN
Status	Green bond
Rating (Fitch / S&P)	C / CCC
Pre-war rating	B- / CCC+
Price / YTM	34% / 71%
Maturity	Nov-24
Issue am't., EUR m	325
Outstanding, EUR m	325
Coupon	8.5% S/A

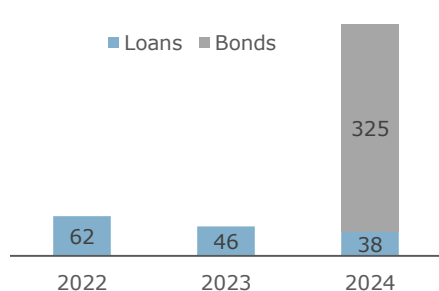
## Key leverage metrics, EUR mln



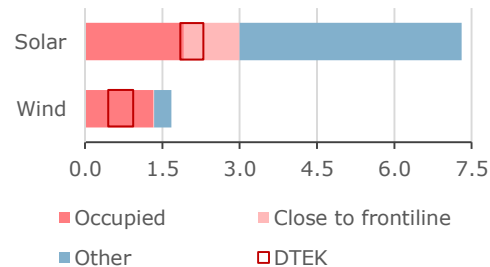
## Payments to RES in Ukraine, UAH bln/month



## Debt repayment schedule, EUR mln\*



## Current location of renewables in Ukraine, GW



# DTEK Renewables: Effect of Russian aggression

The company is currently among the key victims of the Russian offensive as all its operational assets were affected by the hostility. A possible de-occupation of southern districts of Ukraine will be very helpful for it.

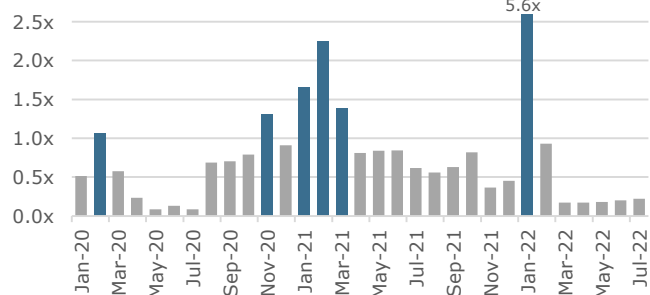
## Assets: Complete disaster

- As can be seen from the map, all the company's wind stations and one smaller solar station are currently on the occupied territories.
- The rest of its operational capacities, two large solar farms, are located in the area which is very close to occupied territories (about 22 km). Locations near the assets are shelled by artillery very often in July-August.
- Its only asset that is not affected by the aggression, Tiligul'ska wind farm, was under construction as of the war's start.

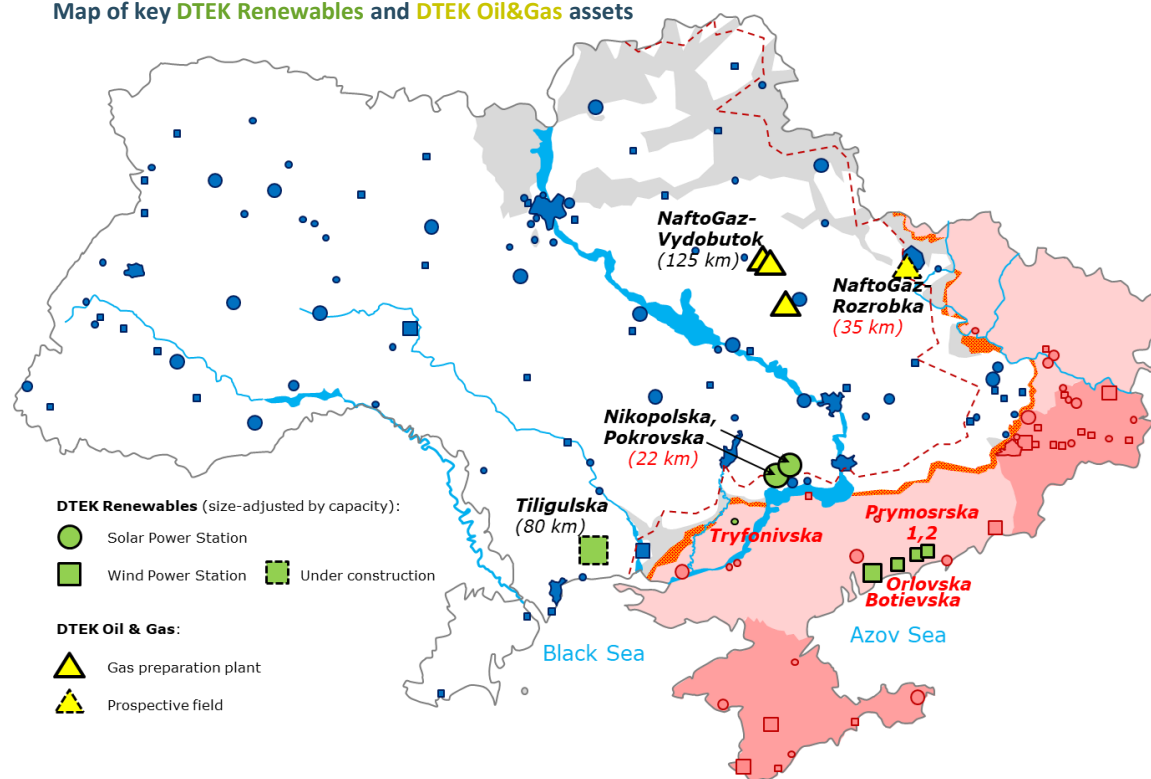
## Payments for power: Not better

- Since the war's start, payments for green sources under the feed-in-tariff from the state operator Guaranteed Buyer (GarPok) have collapsed to average 22% after the war started (from nearly 100% in January-February). Payments made to solar and wind plants were even lower (payments are no longer pro-rata, as GarPok is trying first to cover OpEx of renewables). Minimal payments to DTEK were 15-16% in March-June and 18% since July.
- RES, GarPok, Ukrenergo and the Cabinet are working to find other sources for payments, but this does not look like a top priority to the government.
- Sooner or later, the payment issue will be resolved, but today's fact is – those renewables that remain operational are paid just enough to cover their OpEx, meaning they cannot accumulate any funds to service their loans.

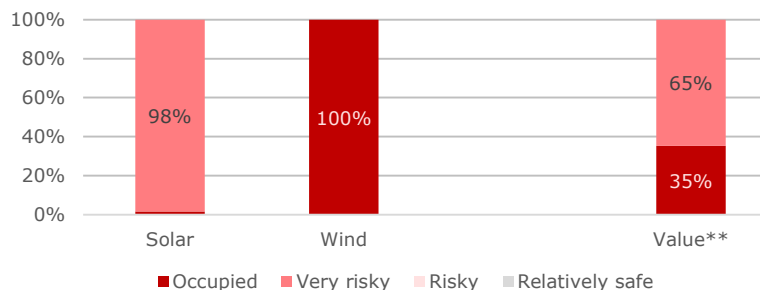
## Payments as % of power sold



Map of key DTEK Renewables and DTEK Oil&Gas assets



Asset distribution by locations\*



# Interpipe: Suffering from inflated costs

## Company profile

Interpipe is Ukraine's biggest producer of steel pipes and railway wheels. It is a vertically integrated holding consisting of an electric steel facility and three pipe rolling plants, all located in the Dnipropetrovsk region of Ukraine. Interpipe is controlled by a holding company owned by Viktor Pinchuk, one of Ukraine's richest businessmen. The company went through a long process of debt restructuring which was completed in 2019. Later on, it fully repurchased the bonds that were issued as a part of the debt restructuring, and soon after that issued a new bond in May 2021.

## Back to stable fundamentals, for a while

The company went through hard times in the late 2000s and mid-2010s with low prices for its outputs, heavy debt burden and loss of the Russian market, which used to be the main one for its pipes and wheels. Being able to refocus to new markets, Interpipe had very good years in 2019-2021, when it also was able to complete the debt restructuring, deleverage, issue a new bond and even start paying USD 230 mln dividends to its owner and do some other investing totaling USD 50 mln in 2021.

After the Russian invasion, Interpipe had to stop operations at its facilities till April, which led to a worsening of its operating indicators and P&L in 1Q22, even though beginning of the quarter was good. There is little information on the company's current operations, but it is unlikely that Interpipe is generating cash now.

Its biggest operating issue is the surge of energy prices and transportation costs, for which no remedy is seen in the short-term.

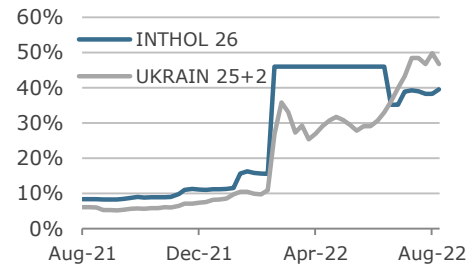
## Enough reserves to go through hard times

Interpipe has preserved a large cash stockpile (USD 180 mln as of end-March) that will allow it to go through the tough period for no less than 1.5 years, we estimate. We expect the security situation will improve and opportunities for better cash generation will appear before the company exhausts its reserves.

But risks are also there: one of its pipe plants is located in a town which has been shelled very often in July-August. At least, it means that the plant won't restart in the near future.

**The company's key debt obligation is a Eurobond that matures in four years, so it is unlikely to undergo any debt restructuring soon. Some chance remains that Interpipe will be able to repay via refinancing (or from own cash flow). But this probability does not look high enough to make INTHOL an interesting investment opportunity now.**

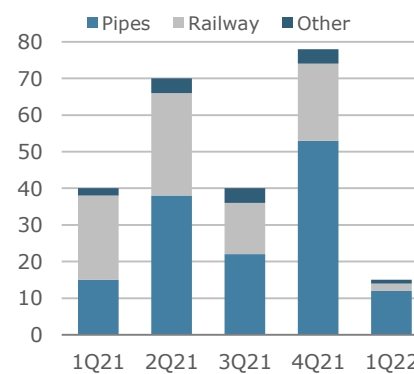
## Bond YTM



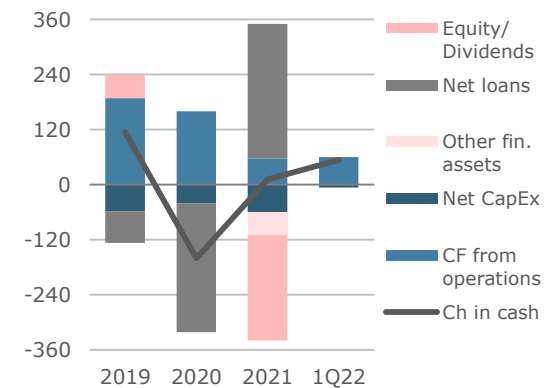
## Bond parameters

Ticker	INTHOL
Rating (Fitch / S&P)	CCC- / NR
Pre-war rating	B / B
Price / YTM	40% / 41%
Maturity	May-26
Issue am't., \$ m	300
Outstanding, \$ m	300
Coupon	8.375% S/A

## EBITDA by segment, USD mln\*



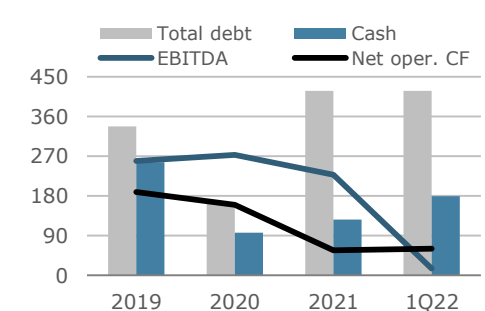
## Key sources and use of cash, USD bln



## Debt payment schedule, USD mln\*\*



## Selected leverage metrics, USD mln



# Interpipe: Effect of Russian aggression

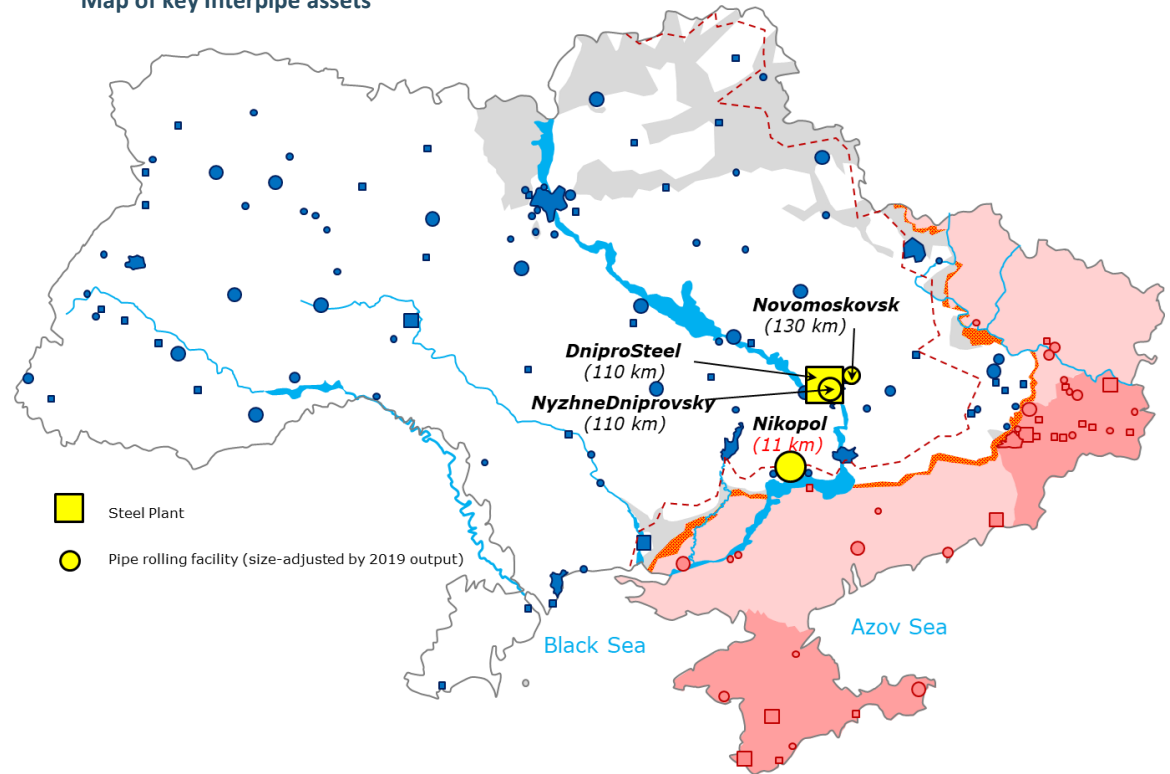
The key risk for Interpipe assets is the occupation of the eastern bank of the Dnipro across Nikopol, where one of the company's three pipe-rolling plants is located. The town suffers from artillery shelling these days, with all the related consequences (impossibility to operate there, risk of damage, etc). The good news is that the location is very unlikely to be occupied, and that the plant's idling won't affect other the businesses of Interpipe much.

All the other plants are located far enough from the war zone to consider risks of their operations as no greater than in any other large Ukrainian city.

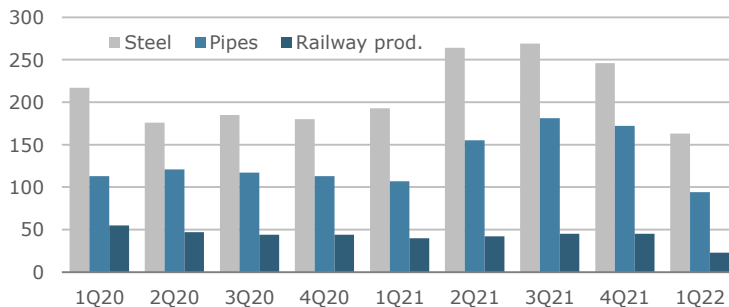
The stoppage of operations in March and until April at all facilities was reported. We assume that some production has been restored. At least, high prices for natural gas in Europe and oil worldwide offer good demand for pipes for the industry (OCGT pipes).

Meanwhile, it is unlikely that the holding's railway products (mostly wheels for rolling stock, made at the Nyzhnedniprovsky plant) will meet high enough demand to make their production efficient. We expect the holding won't produce railway products for some time now.

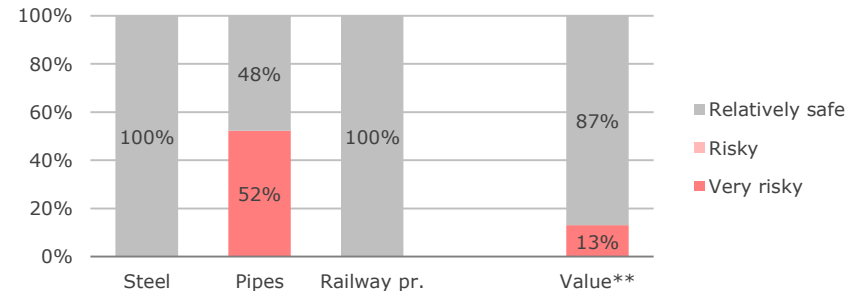
Map of key Interpipe assets



Key products output, kt



Distribution of assets by locations\*



\* Based on distance form the front line or Russian border: <25 km: very risky, 25-100 km: risky, pipe production breakdown is based on 2019 output data.  
 \*\* Steel/Pipe/Railway contribution assumed at 50/25/25. Source: Company data, Interfax-Ukraine, Concorde Capital research



# Kernel: Might benefit from grain convoys, hope for seaports unblocking

## Company profile

Kernel is Ukraine's biggest farming company by land bank operated (506,000 ha as of end-2021), the biggest producer of sunflower oil (it operated 3.71 mmt seed processing capacity, of which 3.49 mmt was owned, plus it has 1 mmt under construction) and one of the biggest grain traders. The company operates a large network of grain silos (2.4 mmt of storage capacity as of end-2021) and a port terminal in Odesa region.

In April 2022, Kernel reached a preliminary deal with its top shareholder to sell a 134,000 ha farming business for USD 210 mln. The deal is yet to be completed.

## Assets located mostly in areas far from the aggressor activity

Based on our analysis, the assets that generated about 91% of EBITDA to Kernel over the last three years are located in the areas very distant from Russian land attacks (see the next slide).

## Grain and oil export collapsed due to port closure

A significant portion of Kernel's business suffers from the blockage of Ukrainian seaports. In April-June, it had to decrease grain export volumes by 93% and oil production by 75% yoy.

## Large inventories, large and very short debt

The last financial year (ended June 2021) was the best in the company's history (EBITDA exceeded USD 900 mln, operating cash flow USD 460 mln). The next year promised to be even better in terms of volumes of oil production and grain trading.

- The company accumulated record high inventories as of end-December 2021 and increased its leverage to finance the build up.
- After a good year, the Kernel paid to shareholders USD 131 mln (including USD 80 mln in Jan.-Mar. 2022) and invested USD 207 mln in various financial and intangible assets (including purchase of cryptocurrencies for USD 153 mln in Jan.-Mar. 2022).

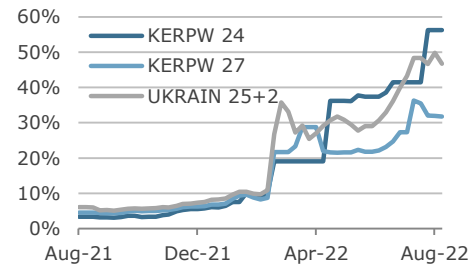
With the **closure of seaports** following Russian aggression since Feb. 24, Kernel had to significantly decrease grain exports. In this way:

- its most profitable business of the last year, port and trading, has nearly stopped,
- profit is on the way to decline sharply,
- leverage remains at a record-high level, with most debts being short-term (as of end-March, USD 815 mln of debt was due by end-May). Coping with this requires constant work with creditors to postpone the debt maturity. Thus far, it managed to postpone maturity beyond September. This issue has led to decrease of Kernel's credit rating by Fitch to C on June 19 (the lowest rating of Ukrainian issuers at that time).

**Unblocking of seaports will be helpful for Kernel to resolve its liquidity issue.** Timing of full de-blockade of seaports is hard to predict.

It is very likely that the company will resolve its issues in the next year and avoid cross defaults on bonds. At the same time, the liquidity issue implies high default (cross-default) risk under the bonds. The existing risks and operations issues do not allow us looking bullish on its bonds.

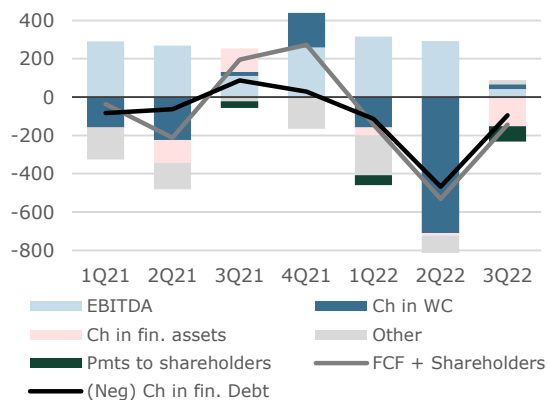
## Bond YTM



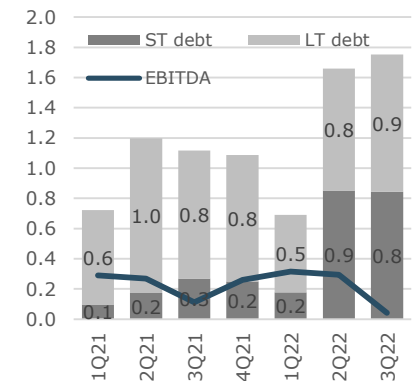
## Bond parameters

Ticker	KERPW	
Rating (Fitch / S&P)	C / CC	
Pre-war rating	BB- / B+	
Maturity	Oct-24	Oct-27
Price / YTM	42% / 56%	38% / 32%
Issue am't., \$ m	300	300
Outstanding, \$ m	300	300
Coupon	6.5% S/A	6.75% S/A

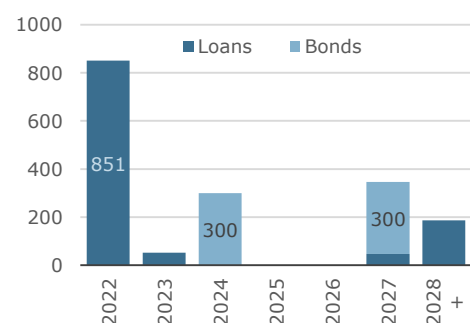
## Generation and of use of money, USD mln\*



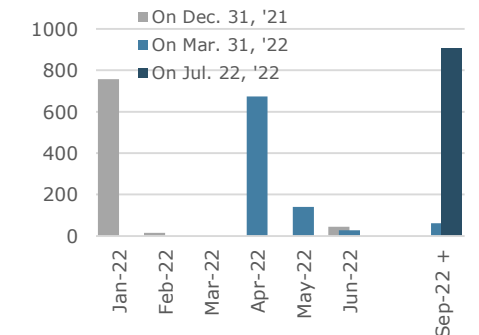
## Selected leverage metrics, USD mln



## Debt maturity as of Mar. 31, '22, USD mln



## Change of ST debt maturity, USD mln



# Kernel: Effect of Russian aggression

Port closures led to the collapse of businesses that generated about 60% of Kernel's EBITDA in the last 3Y, while the rest of the businesses, as well as most of the assets, were not affected.

While Kernel is among the covered companies whose assets suffered least from Russian military aggression, it is **among the key victims of the Russian blockade of seaports**:

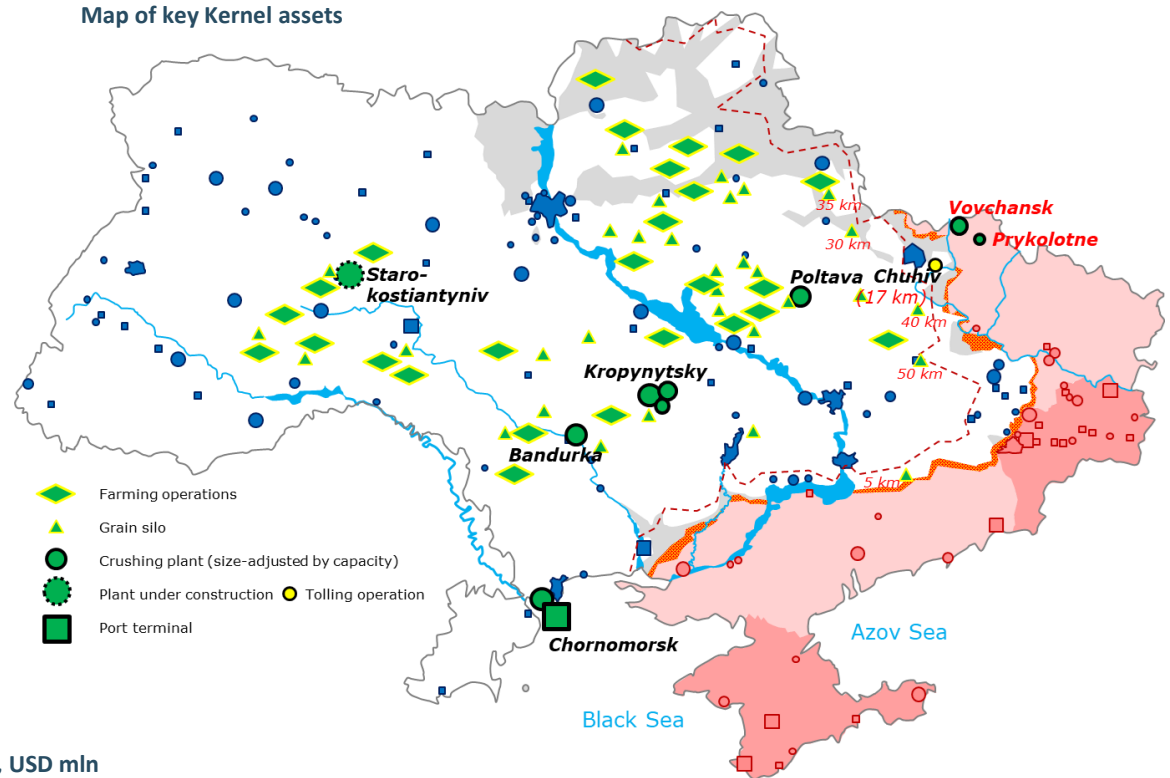
- All the grain export and most vegetable oil exports of the company went through seaports, for which the company has its own terminal in Chornomorsk near Odesa.
- With the port blockade, grain exports and exports of oil collapsed, which also led to a significant decrease of oil production.
- Two Kernel's oil plants appeared on the occupied territory and a rented asset is close to the frontline. About 5% of its commodities have been stored on the occupied territory.

The potential re-start of grain export from Chornomosrk can significantly improve Kernel's operations. However, the scope of such recovery is hard to estimate.

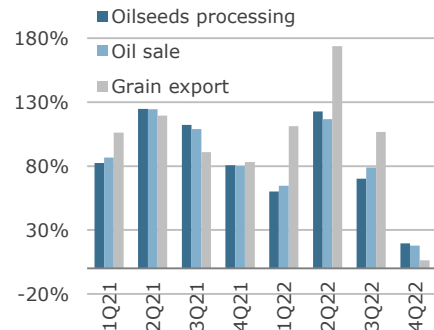
### Businesses that did not suffer much are:

- Farming - Kernel has almost no farming operations in areas close to Russian land attacks. However, the risk of damage and human losses in liberated northern areas (where mines in the fields is a problem) still exists. Bigger problem is low grain prices in Ukraine that makes farming not much profitable this season.
- The grain storage business is likely to have its best times, as a deficit of storage capacities is observed in Ukraine due to the export issues.

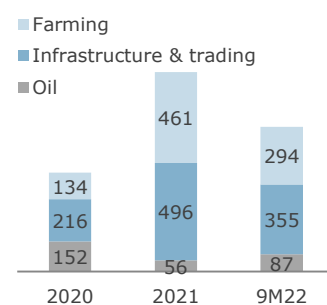
Map of key Kernel assets



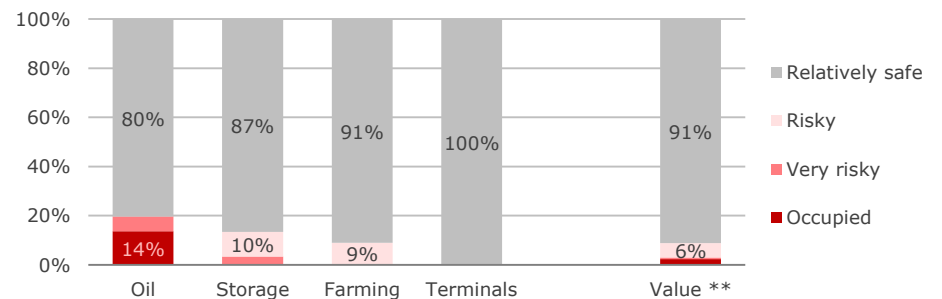
Key output metrics, % of FY2021 average



Segments EBITDA, USD mln



Assets distribution by location (by capacity as of Dec. '21)\*





# Metinvest: Waiting for Russians go home

## Company profile

Metinvest is a vertically integrated iron ore and steel holding. It was Ukraine's biggest producer of iron ore (31.3 mmt), coke (4.6 mmt) and steel (9.5 mmt). It also owns a US-based coal company. Metinvest lost control over some coal, steel and pipe assets in 2016 as a result of the occupation of part of Donetsk and Luhansk regions by Russia in 2014-2015. Metinvest is the biggest asset of Rinat Akhmetov, Ukraine's richest man.

## Some safety cushion remains after exceptionally good year in 2021

- Metinvest benefited from exceptionally high steel and ore prices in most of 2021 having generated over USD 6 bln in EBITDA last year.
- It did all its best to distribute huge accumulated cash to shareholders. Limits to such payments were imposed during the previous debt restructuring, and they were completely removed only in January 2022. Perhaps such limits have saved the company from spending more cash. The latest info we have is USD 483 mln of cash balance on Apr. 7, 2022 (vs USD 2006 mln on Oct. 30, 2021).
- We estimate the company's total debt at about USD 2.0 bln (implying net debt of USD 1.5 bln) as of end-March. This amount used to be equivalent to its quarterly EBITDA just a year ago, but now it looks like a high burden.

## Among the biggest victims of Russian aggression

- Assets responsible for 90% of steel output and 36% of coke output in 2021 are now located on occupied territories or the front line.
- After losing its largest steel mills, Metinvest could have turned into iron ore company if it had been able to supply its ore from Ukraine.
- The ports blockade made the supply of iron ore impossible by ship (the only route of iron ore supplies before the war). The rail alternative has much smaller capacity and higher costs, which could only look affordable for more value-added goods.

**Our understanding is that Metinvest is not a cash-generating business now.** The cash burn rate as of today is unclear, but we assume the company would be able to live with existing cash for about 4-6 months.

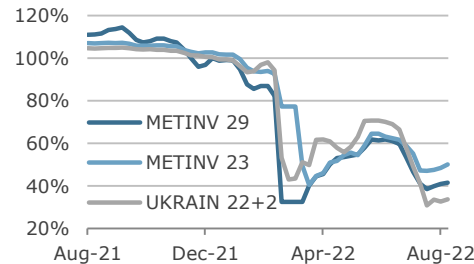
## The only hope for it to return to its pre-war business model is the end of Russian aggression:

- At least, full de-blockade of Ukraine's seaports.
- Liberation of Mariupol and moving the front line from Avdiyivka.
- At most, the liberation of the cities in Donetsk and Luhansk regions occupied by Russia in 2014. In such case, the company's asset base could increase via joining the assets lost there.

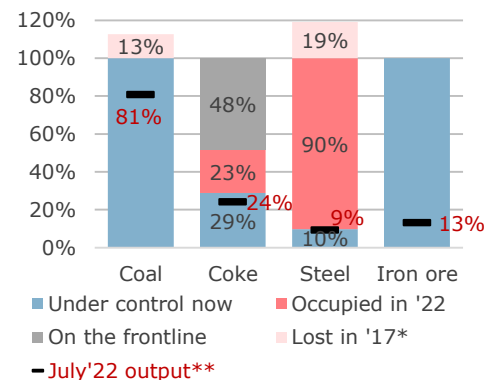
**If there is no progress with unblocking the ports in the next six months, Metinvest will have to offer debt restructuring, in our view. The restructuring is inevitable if no progress is reached by March 2023** (in April, USD 176 mln bon matures).

**Alternatively, the company could try to partially resolve its debt issue by starting sale of its EU- and US-based assets, or, less likely, it might receive support from its shareholders.**

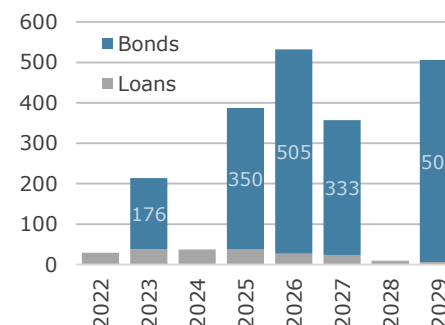
## Bond prices, % of par



## Status of assets (100% = 2021 output)



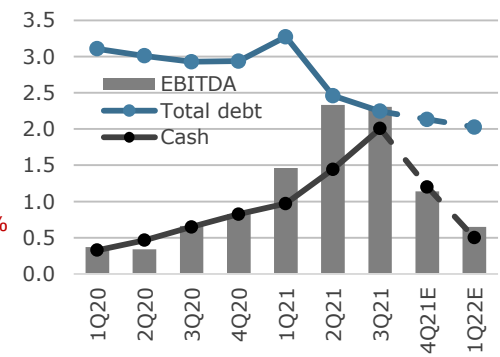
## Debt schedule as of Oct. 31, '21, USD mln



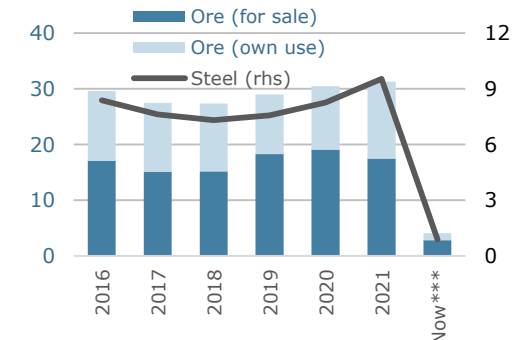
## Bond parameters

Ticker	METINV				
Rating (Fitch / S&P)	CCC / NR				
Pre-war rating	BB- / B+				
Maturity	Apr-23	Jun-25 (EUR)	Apr-26	Oct-27	Oct-29
Price / YTM	52% / 140%	41% / 44%	42% / 40%	42% / 31%	41% / 26%
Issue am't., \$ m	945	300	648	333	500
Outst., \$ m	176	299	494	332	500
Coupon (S/A)	7.75%	5.625%	8.5%	7.65%	7.75%

## Selected leverage metrics, USD mln



## Key output metrics, mmt



# Metinvest: Effect of Russian aggression

Metinvest suffered directly from three effects of the Russian aggression – the occupation of territories, damage of assets and sea blockade:

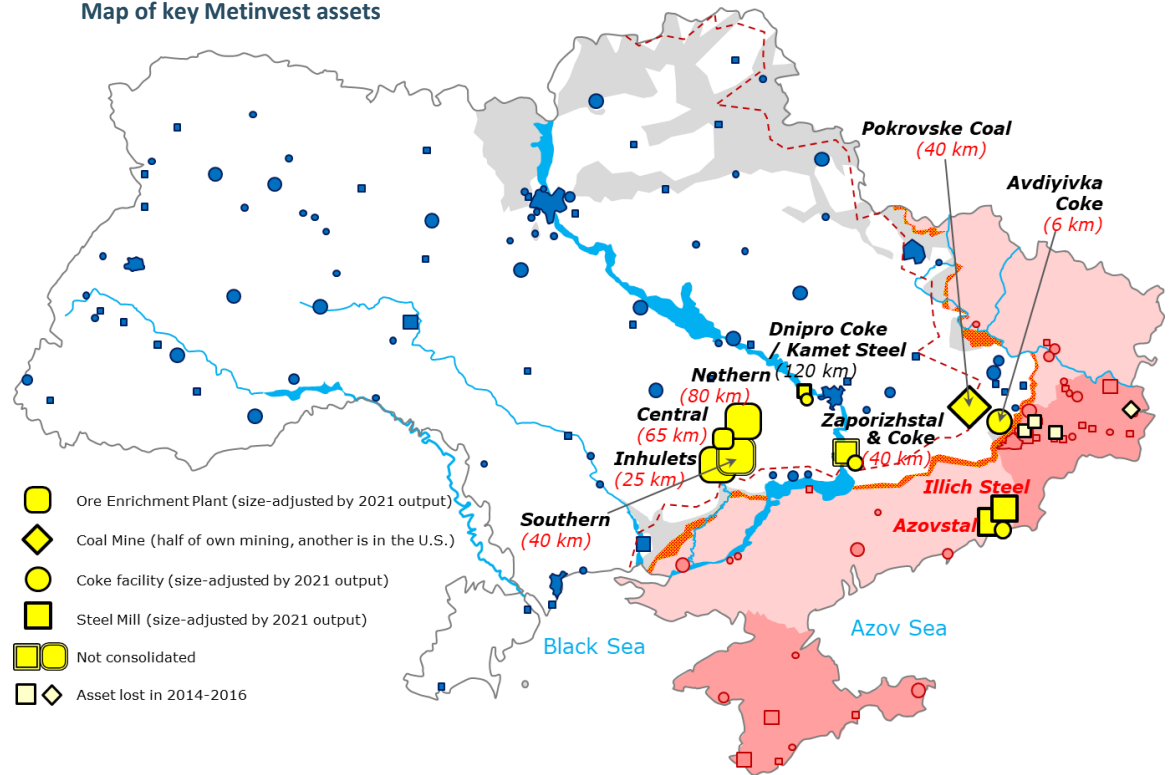
- Two of its three steel plants (90% of 2021 output and 78% of steel capacity) are located in Mariupol, one of the most damaged cities.
- At least one steel mill (46% of 2021 output and 37% of steel capacity), has been destroyed. Also, its biggest coking plant in Avdiivka is very close to the front line and has a high risk of being destroyed too.
- The blockade of exports by sea made the company shift to alternative export routes (railway). Such efforts are not going well, as can be concluded from the gradual decrease of iron ore and steel production at the company, as it reports.

As a result, Metinvest was gradually decreasing its ore and steel output since February to July and dis-integrated its international assets (U.S. coal producer, EU-based metal rolling plants) from its production-supply chain. The U.S. coal producer seems to be the only asset that did not suffer from a significant production decline.

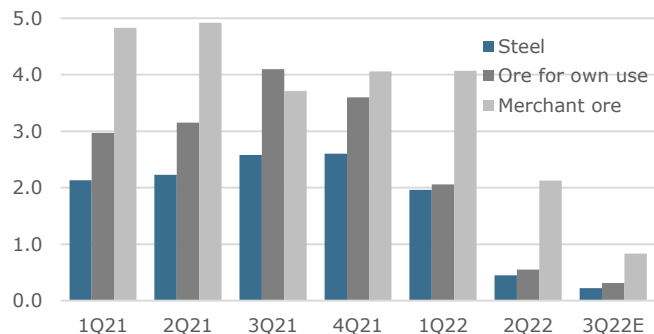
Unlike crop producers/traders which could, to some extent, benefit from special supervised exports of grains from ports, **Metinvest is unlikely to have any ability to supply goods by sea in the near term.** Only the restoration of safe navigation near Ukraine will be helpful, which requires the end of Russian aggression against Ukraine.

**That suggests the low likelihood of Metinvest returning to normal work in 2022, and some chance in the next year.**

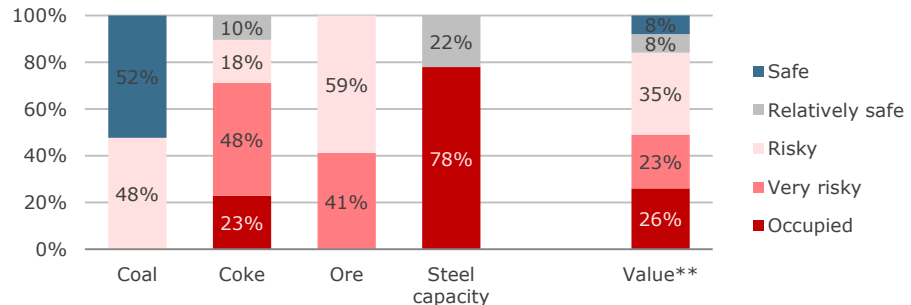
Map of key Metinvest assets



Key output metrics, mmt



Asset distribution by locations (2021 output)\*



\* Assets that Metinvest consolidates. In Ukraine, based on distance form the front line or Russian border: <25 km: very risky, 25-100 km: risky; outside Ukraine: safe.  
 \*\* Estimate. Source: Company data, Concorde Capital research

# MHP: Main business remains safe

## Company profile

MHP is Ukraine's and Europe's biggest producer of chicken meat and one of the biggest farming companies (361,000 ha land bank). It is a vertically integrated company which produces fodder for chicken from own harvests, produces and sells vegetable oil as a byproduct of fodder making, processes part of the poultry into higher value-added goods. It also controls an integrated chicken and food holding in southern Europe.

## Fundamentals got stronger in 2021

The post-COVID recovery of demand for food let MHP benefit from good prices for chicken and grains in 2021. On increased EBITDA, the company improved its leverage multipliers and even paid two dividend tranches for a total USD 71 mln (up from USD 31 mln in 2020), thus nearly returning to pre-COVID levels of USD 80 mln+.

## Among the first to ask bondholders to delay coupon payment

The company was planning to spend about USD 160 mln on the spring sowing campaign and was planning to use a credit line (up to USD 154 mln) to finance it. With hostilities in Ukraine, the line became unavailable, so the company approached its bondholder to ask to postpone all coupon payments for about USD 49 mln (due in March-May) for 270 days.

The reprofiling yielded harsh reaction from the rating agencies which downgraded the issuer to "default" levels, which we assess as over-reaction. Nevertheless, it has spoiled the company's ideal credit history.

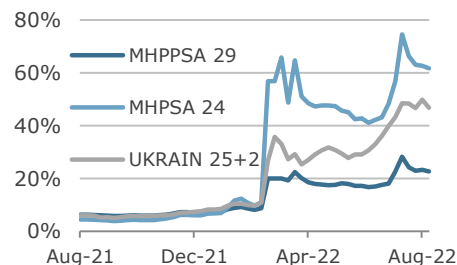
The purpose of the company was to save its cash (USD 308 mln as of end-March) amid uncertainty with borrowing. The company remains cash-generating, even adjusting for losses incurred with the hostility and possible problems related to grain sales. This suggests that, if the war situation in Ukraine does not become worse, MHP won't ask for a new postponement of the coupons on bonds. Moreover, the company could pay the delayed coupons earlier than the 270-day deadline.

**The rest of 2022 does not promise to be easy for MHP**, but it is likely to remain cash-generating:

- For the chicken business, the devaluation of Ukrainian currency will make its products more competitive abroad. At the same time, its EBITDA and margin in the segment will decrease on smaller volumes and cost inflation.
- Its farming business will likely turn to loss-making, unless crop prices recover in Ukraine. Currently, media report that domestic prices for corn and forage wheat (on EXW and CPT basis) are close to USD 150-170/t (down almost 50% yoy). Hopefully, if grain convoys from Ukraine go smoothly, internal prices will improve to prevent losses for Ukrainian farmers.

**The company's debt repayment schedule does not look tough, and there is lot of time till the nearest large maturity in May 2024.** MHP accustomed to refinance its Eurobonds with new issues in 1-2 years ahead of bonds' maturity. If debt markets won't open for companies like MHP, or if does not secure conventional refinancing (e.g. from EBRD), the company may have to offer a rescheduling of its bonds, possibly in late 2023. Taking into account the company's experience of the 2014-2015 crisis (it was the only Ukrainian Eurobond issuer who did not restructure its debt then), MHP has a good chance to find the solution.

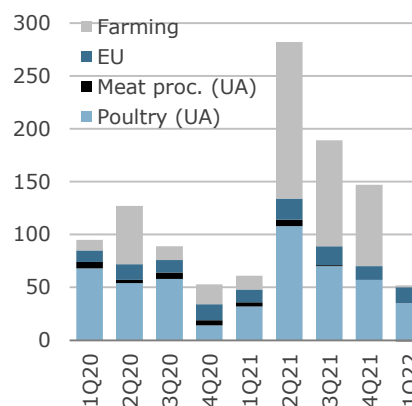
## Bond YTM



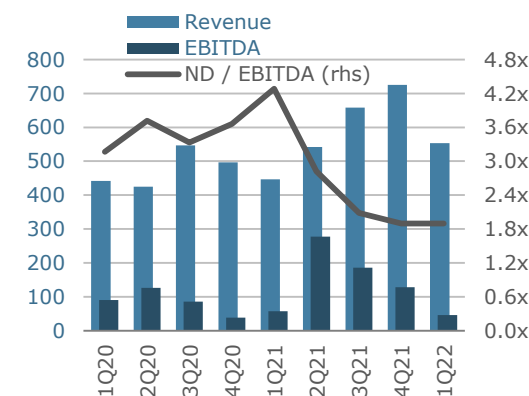
## Bond parameters

Ticker	MHPSA		
Rating (Fitch / S&P)	C / D		
Pre-war rating	B+ / B		
Maturity	May-24	Apr-26	Sep-29
Price / YTM	45% / 63%	43% / 36%	42% / 23%
Issue am't, \$ m	500	550	350
Outstanding, \$ m	500	500	350
Coupon	7.75% S/A	6.95% S/A	6.25% S/A
Delayed coupon (+270d)	May-22	Apr-22	Mar-22

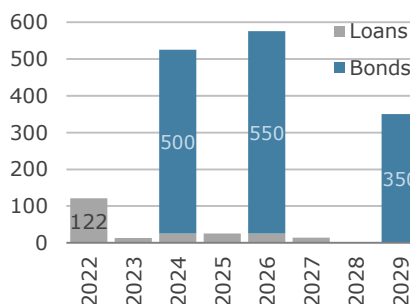
## Segment EBITDA, USD mln



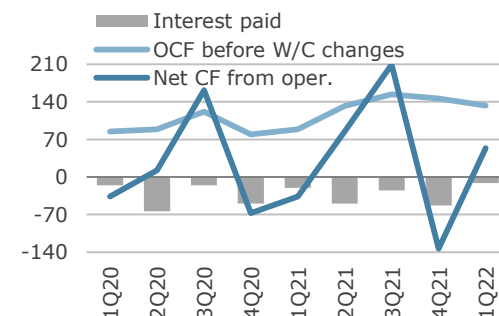
## Key leverage indicators, USD mln



## Debt repayment schedule, USD mln\*



## Operating cash flow items, USD mln



# MHP: Effect of Russian aggression

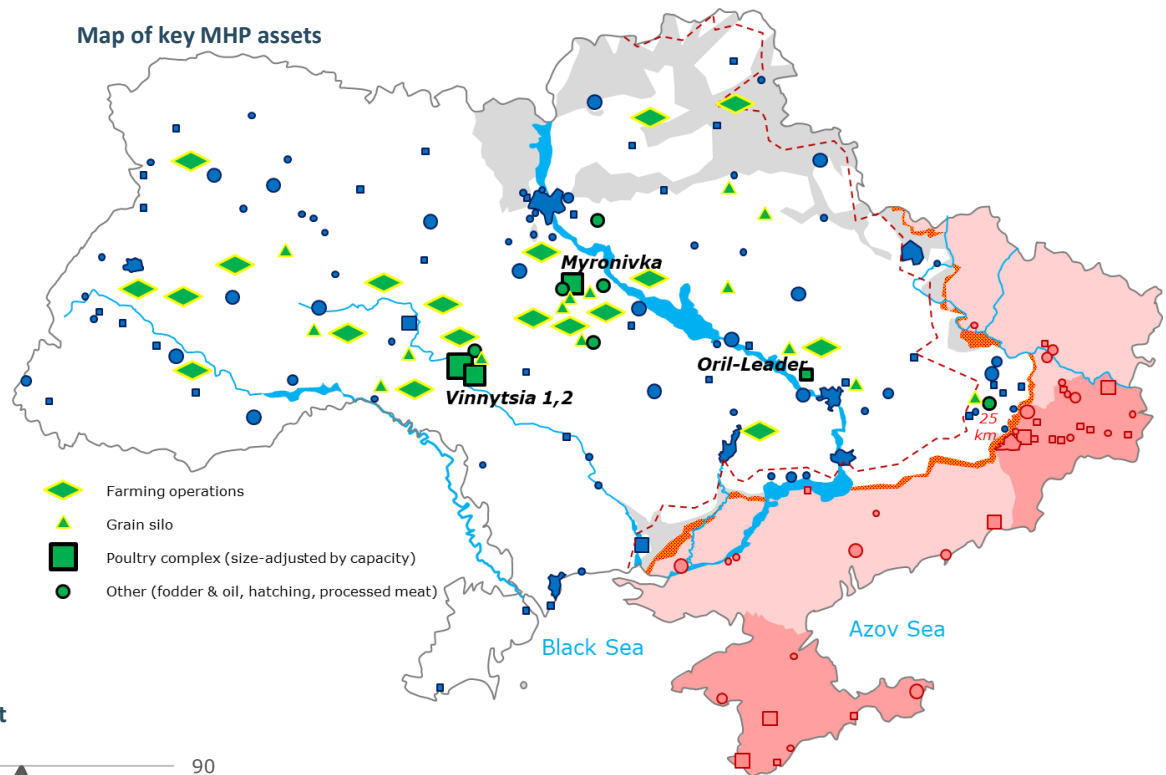
## MHP's assets remained mostly untouched by hostilities:

- Its only asset located close to the frontline in Donetsk region is the meat processing plant Ukrainian Beacon. The plant stopped its operation in early April.
- Damage to a warehouse near Kyiv was reported in March, which resulted in a loss of goods stored totaling USD 6.1 mln.
- The company estimated its total losses and costs related to the hostility at USD 25 mln in 1Q22, 53% of which are donations and humanitarian aid. The latter expenditures are likely to expand in 2Q22.

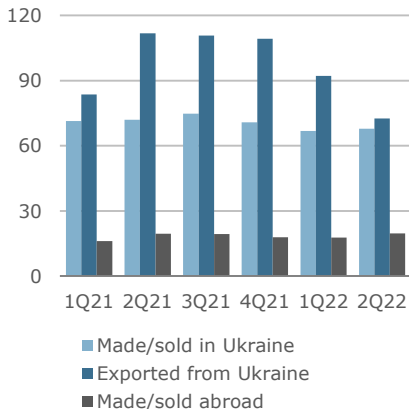
## MHP's operations:

- The seaport blockade brought challenges to exports of grains and oils, while the company's statistics shows that its oil exports did not suffer much in 1Q or 2Q.
- Volumes of chicken sold in Ukraine, as well as chicken prices, have not decreased recently, either. However, due to complications with logistics, exports of chicken meat from Ukraine were on a declining path over the first two quarters of 2022.
- The biggest problem is likely to be with sale of grains, which suffer much from the seaport blockade. This issue will spoil MHP's P&L this year, as farming was the top contributor to its EBITDA in 2021. The recovery of grain exports due to sea convoys will slightly improve the situation.

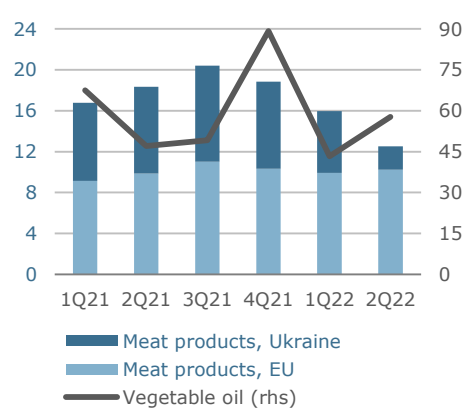
Map of key MHP assets



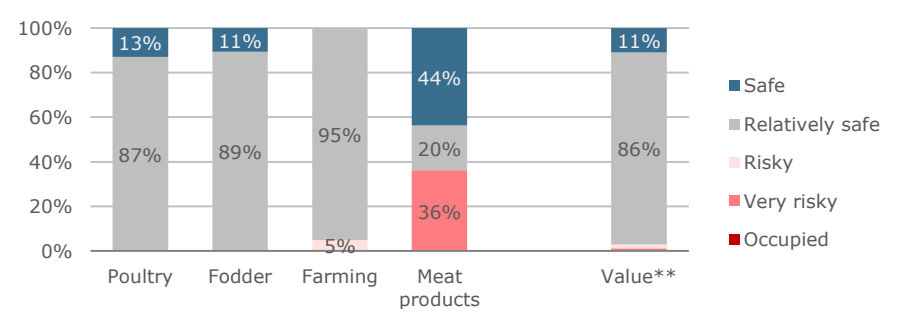
Poultry meat sales, kt



Other product sales, kt



Asset distribution by locations (2021 output)\*



# Naftogaz: Taking more social and security obligations

## Company profile

Naftogaz is a fully state-owned holding company that controls Ukraine's leading gas producer UGV (69% of natural gas mining in 2021), gas storage facilities and its own natural gas retail unit. It also holds control stakes in one regional gas distribution and supply company and in Ukrnafta, Ukraine's leading producer of crude oil and gasoline retailer. In August 2022, it also took in possession six state-controlled heat and power plants, of which two located in occupied cities.

## Turning back into the social wing of the government, with USD 3 bln compensation in 2022

In less than one year passed since the cancellation of public service obligations (PSO) that Naftogaz had (supply cheap gas to households and heating utilities), the PSO came back with the war and energy crisis. Naftogaz was not able to raise natural gas prices for these categories in 2022, and in July the freeze of prices at the pre-war level was fixed by the Cabinet and parliament. The latter voted to freeze gas prices for households and producers of heat for households at the pre-war level for the period of martial law plus six months.

Unlike before, the 2022 PSO mechanism foresees clear sources of compensation of respective costs of gas supplies. According to law #7429 approved in July, the 2022 state budget foresees UAH 111 bln (USD 3 bln) for the compensation of Naftogaz' difference between the gas price and "economically justified costs". The source of such compensation will be grants to the Cabinet from international donors.

On top of that, based on the amended law, UAH 76 bln will be directed from the state budget to secure the settlement of consumers' overdue debt to Naftogaz and related companies (though, this amount will be directed back to the budget in form of "dividends" (UAH 64 bln) and taxes (the rest) in 2022. In this way, Naftogaz will pay dividends in this tough year.

## Aggressive gas stockpiling task

Naftogaz has been ordered by the Cabinet to stockpile 19 bcm of natural gas by the beginning of October (up from 11.8 bcm as of beginning of August). To make this happen, the company needs to purchase about 5.6 bcm of gas by October, which it estimates at costs of at least UAH 230 bln (or USD 6.3 bln, based on today's exchange rate).

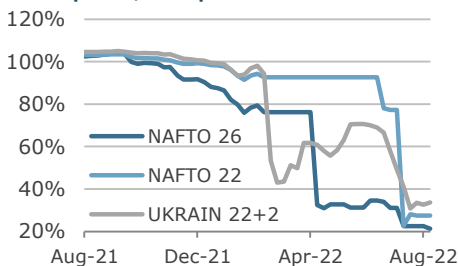
Based on our estimates, this task is unnecessary (see the chart of the next slide), as Ukraine can easily go through the next winter season with starting stockpiles of 15 bcm. That means Naftogaz will need to purchase (import) only about 1.6 bcm of gas ahead of the heating season, or 70% less than the Cabinet's task implies.

The implementation of such an aggressive task which implies heavy financing does not look possible. Compensations from PSO, even if they are paid in advance, won't be enough to purchase even half of the planned amount.

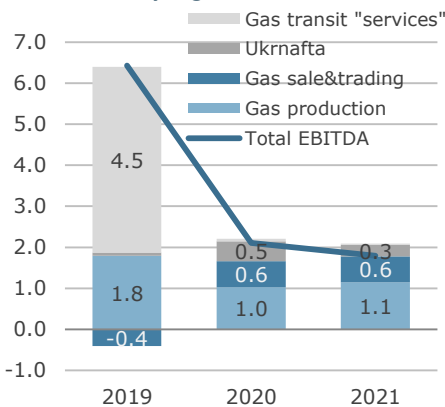
## In the process of Eurobond restructuring

Referring to the need to import a lot of gas, Naftogaz, on pressure from the government, initiated in July a restructuring of its Eurobonds. The first restructuring offer, released on July 11 (or a week before the maturity of its USD 335 mln bond) was not accepted by bondholders. This, as well as the Cabinet's ban on any Naftogaz bond payments, led to a default on Naftogaz 2022 and 2024 bonds in late July. The new offer, with conditions 100% aligned with the restructuring offers of MinFin Eurobonds, was filed on Aug. 2.

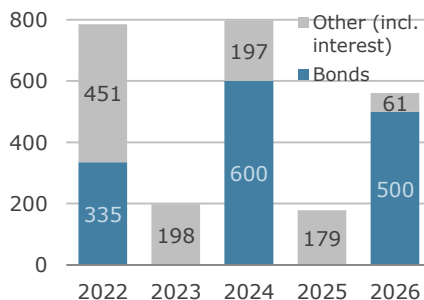
## Bond prices, % of par



## EBITDA of key segments, USD bln



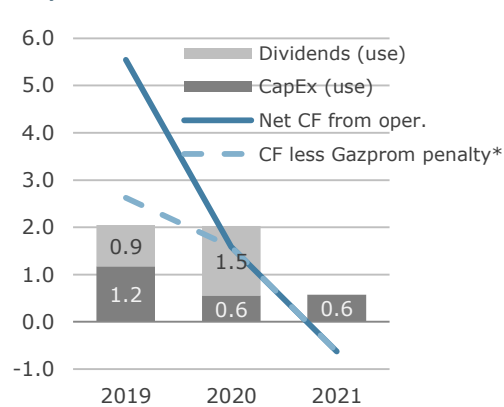
## Debt payment schedule, USD mln\*\*



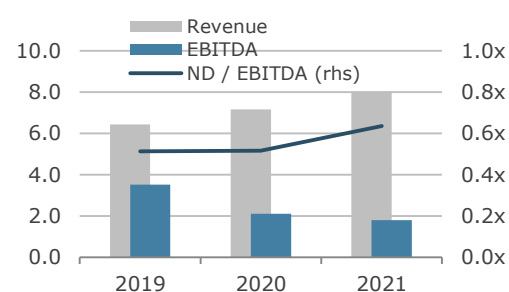
## Bond parameters

Ticker	NAFTO		
Rating (Fitch)	C		
Pre-war rating	B		
Maturity	Jul-22	Jul-24 (EUR)	Nov-26
Price	25%	22%	23%
Am't issued/outst., \$ m	335	600	500
Coupon	7.375% S/A	7.125% Ann	7.625% S/A
Grace period offered	2Y since Jul-22	2Y since Jul-22	2Y since Nov-22

## Key sources and use of cash, USD bln



## Selected leverage metrics, USD bln





# Naftogaz: Analysis of bond restructuring offer

**In our view, the restructuring does not look necessary for Naftogaz as a business, but it looks essential for Naftogaz as a social wing of the government, or the government's agent that implements energy security tasks.**

Naftogaz' first restructuring offer was not approved in July. According to media reports, the creditors were not convinced that the company indeed has a potential cash deficit.

**The new offer provides the identical reason** for the restructuring i.e., the need to buy 5.6 bcm of gas by October, as the government has ordered. However:

- As less than two months are left until the deadline for the gas pumping task, it does not look possible to implement.
- The government's order looks excessive. Ukraine does not need such huge gas stockpiles as the Cabinet prescribes.

**An important reason for preserving cash** and accumulating more stock is energy security: in case the Russian army goes slightly west of Kharkiv, Ukraine will have to stop producing most of its gas.

**The new consent solicitation offers:**

- A more realistic debt repayment schedule than the first one (with no overload of payments in July 2024).
- Extended maturity by two more years for the 2024 and 2026 bonds makes NPV of their cash flows much smaller under the new offer. This is true for the applied discount rate of 9% and more. Using the current "market rate" of 35%, the new offer provides 21%-33% smaller NPV of cash flows from 2024 and 2026 bonds than the first one.

**As soon as Ukraine's Cabinet suggested to bondholders to accept the new offer, and the same restructuring conditions of the government bonds were strongly supported by Western governments, we see that bondholders will have no other choice but to approve the offered financial conditions, sooner or later.**

**In our view, the bondholders can demand a state guarantee on Naftogaz' bonds before they accept the restructuring, for the following reasons:**

- The restructuring conditions that were offered by Naftogaz in August are identical to the conditions offered to the holders of all sovereign and state-guaranteed bonds. No other state-controlled issuer offered such conditions.
- The August conditions of the 2024 and 2026 notes are inferior to what the company offered in July, in terms of NPV, while offering no compensation for the value decrease.
- The key reason for Naftogaz to make the offer seems to be a need to purchase from third parties (import) about 5.6 bcm of natural gas in August-September, as was insisted by the Cabinet. This amount is excessive (again, we estimate that imports of 1.6 bcm by the end of 2022 would be enough), meaning by implementing this task, Naftogaz does not perform as a business unit, but as a government agent that cares about energy security.

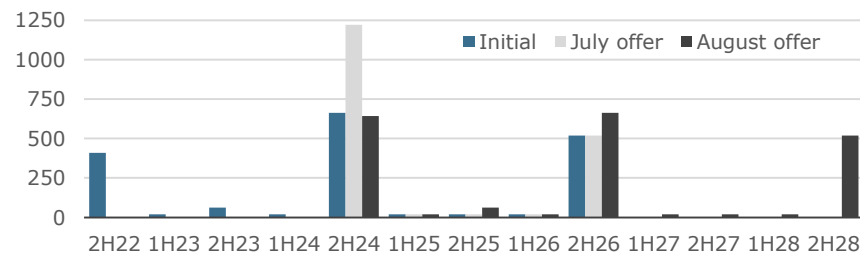
**First consent solicitation offer (July 11):**

- For July '22 bond, extend maturity by 2Y, accruing the same semi-annual coupons for the period of extension. No extension of July'24 and Nov'26 bonds were offered.
- For all the bonds, pay all the coupons scheduled for July '22 – May '24 in July '24 – Nov. '24.

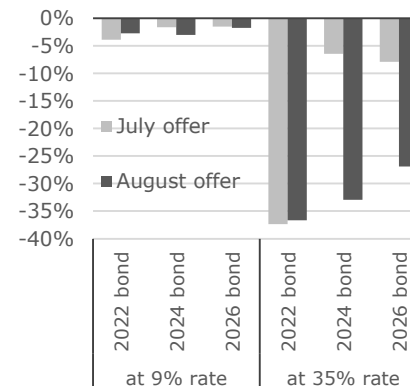
**Second consent solicitation offer (Aug 2):**

- For all the bonds, extend maturity by 2Y, paying the same coupons for the periods of extension.
- For all the bonds, capitalize the coupons due in July '22 – May '24. Interest applies on capitalized amount (at respective bond's coupon rate). Capitalized amounts can be repaid any time in any amount by July 19, 2024 (for 2026 bond – by Nov. 8, 2024), On that date - either fully repaid or added to the bond' principal.

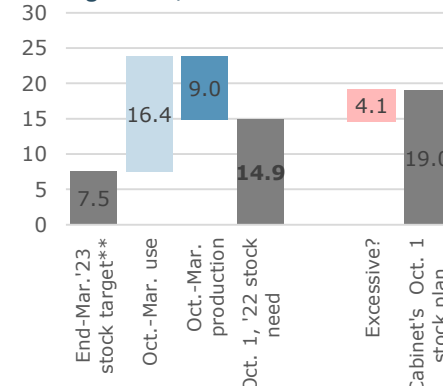
**Payment schedule for Naftogaz bonds, USD mln**



**Difference in NPV of restructuring offers vs. initial bond schedule\***



**Gas stockpile needs for 2022-2023 heating season, bcm**



# Naftogaz: Effect of Russian aggression

## Gas producing assets (UGV)

The vast majority of natural gas production units of Naftogaz' subsidiary UGV are located in Poltava and Kharkiv regions, with the latter being partially occupied. Based on our calculations:

- Areas that brought 6% of its 2021 natural gas output are currently occupied.
- Areas producing more than 11% of gas in 2021 located close to the frontline (less than 25 km), and those producing about 23% are located 25-100 km from the frontline.

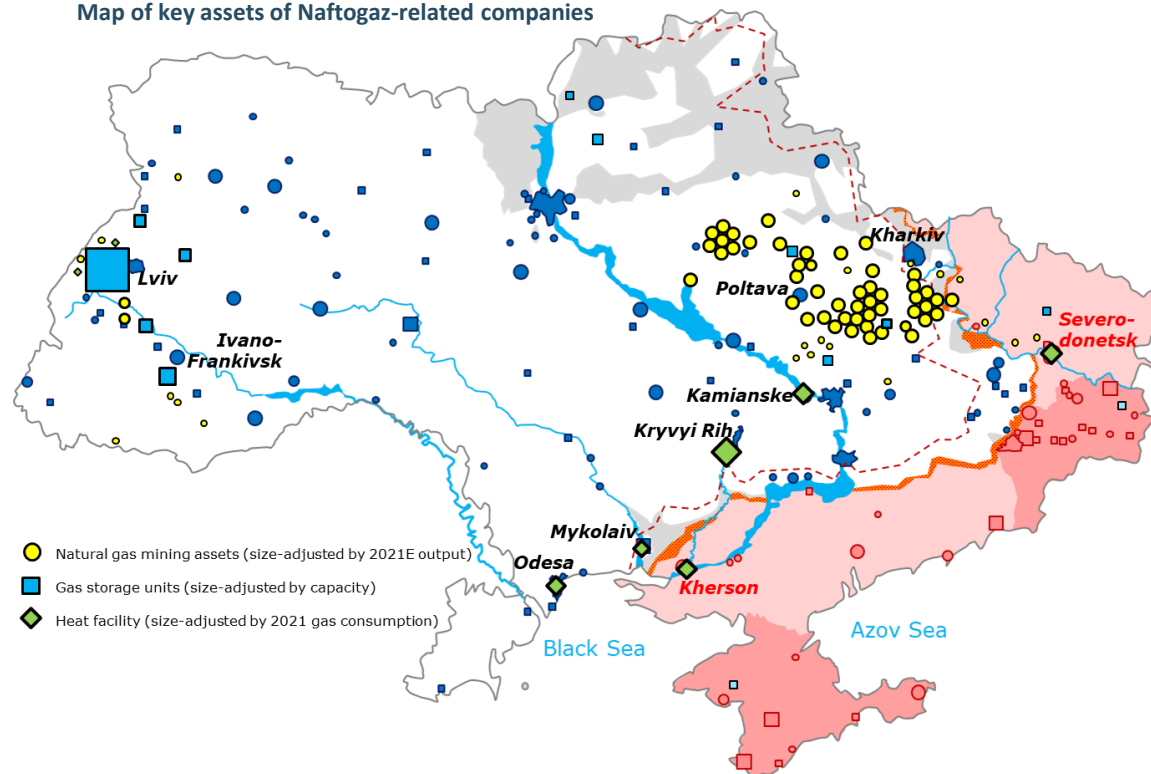
The company's management estimates that its 2022 gas output will be 3-6% smaller yoy, while we do not rule out some sharper decline, up to 8-10%. That won't be disastrous as natural gas consumption is likely to decrease by more than 20% yoy, so Naftogaz and other Ukrainian traders will have a smaller need to import natural gas.

Some of Naftogaz' other assets have been also affected, but their contribution to the company's value is not much significant:

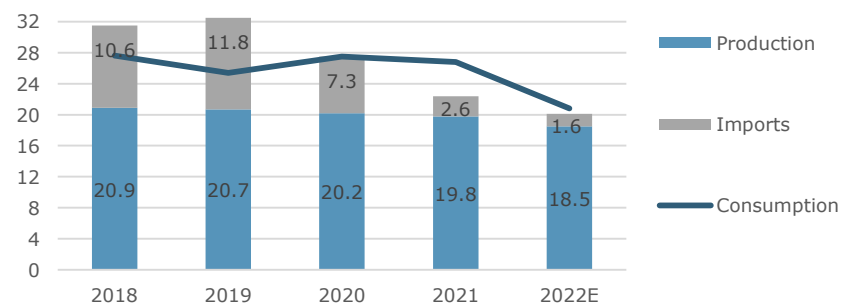
- One small gas storage facility in the east was occupied (in addition to two occupied in 2014).
- UGV's only midstream asset (gas/condensate refinery plant) is located amount 20 km from the frontline south of Kharkiv.
- The government is in the process of giving six large state-controlled heat & power and heat-only stations into Naftogaz' full ownership. Two of them are in the occupied cities of Severodonetsk and Kherson, and two other are not much far away from the front line.

Potential de-occupation of Crimea and surrounding Black Sea regions would increase Naftogaz' value by adding up to 7% to its gas production.

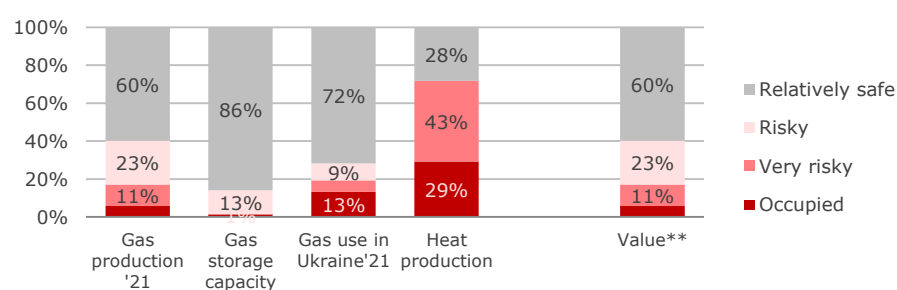
Map of key assets of Naftogaz-related companies



## Ukraine gas use and sources, bcm



## Distribution of assets and activity by locations\*





# Oschadbank and Ukreximbank: Repaying bonds on time

## Oschadbank profile

Oschadbank (Oschad), or State Savings Bank of Ukraine, is the nation's second biggest bank by assets (12% of the system's total as of end-May) deposits (13%) and corporate loans (11%). It is also the second-biggest holder of state bonds in the system (17%), with the bonds accounting for 38% of its total assets. The bank is 100% state-owned but following the corporate governance reform it got an independent supervisory board.

## Ukreximbank profile

Ukreximbank (Ukrexim), or Ukrainian State Export-Import Bank, is the nation's third biggest bank by assets (9% of the system's total as of end-May). With its focus on the business segments related to export/import operations, the bank is the biggest lender in foreign currency (19%), as well as second-biggest holder of foreign currency deposits (12%). It is also the third-biggest holder of state bonds in the system (9%). The bank underwent corporate governance reform, but unlike its bigger peer, but did not get a fully independent supervisory board.

## Effect of Russian invasion

The direct effect (loss of control over its outlets and their assets in occupied territory) is hard to estimate, so we can only estimate that it is proportional to the contribution to GDP of the occupied territories (about 9%). In terms of potential losses of clients, Ukrexim seems to be more exposed than Oschad, as it should have provided more loans to east-located exporters. Thus far, the banks' data show the opposite situation: growth of NPLs are higher for Oschad in Jan-June 2022, which can be explained by the difference in their approaches to recognize NPLs. In any case, the peak of loan portfolio deterioration in the banks is ahead.

On the positive side, the banks might benefit from increased payments to Ukraine's defenders on their card accounts in state banks (recall, monthly salary/bonus payments reached UAH 76 bln in June, which is comparable to 10% of all state banks' deposit base. Thus far, however, the visible effect of large payments on any bank's current deposit base has not been detected.

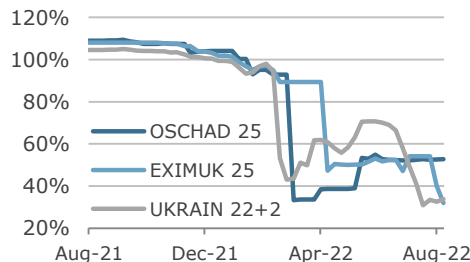
## No need to postpone Eurobond repayments

Irrespective of possible mid-terms problems with loans recovery, we expect the state banks will repay their Eurobonds timely:

- The banks have already repaid over 80% of their Eurobond principal, with the biggest payments made in 2019-2021. The payment schedule of the rest causes no problems to the banks.
- The rates on Eurobonds are much higher than costs of other foreign currency liabilities (see the table) and even assets. For that reason, Ukrexim repaid early a portion of its bonds in 2020.
- The banks have few ideas on how to use foreign currency.

A risk, however, exists, that, in case of a significant deterioration of the bank's loan portfolios and a need of heavy equity injection from the government, the latter will ban any bond payments. Thus far, such risk is hard to estimate, but our base-case scenario remains smooth bond repayments.

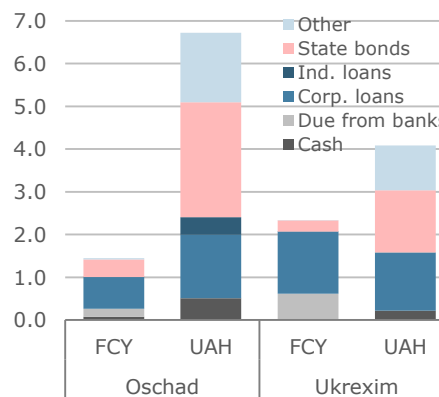
## Bond prices, % of par



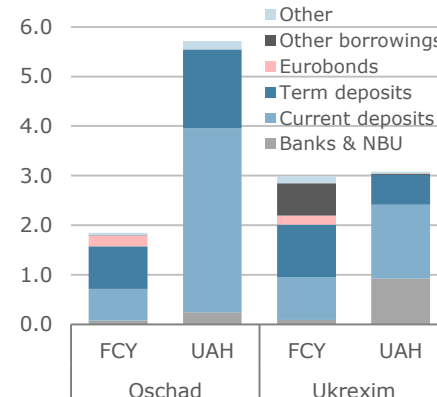
## Bond parameters

Ticker	OSCHAD	OSCHAD	EXIMUK
Rating (Fitch / Moody's)		CCC- / Caa3	CCC- / Caa3
Pre-war rating		B / B3	B / B3
Maturity	Mar-23	Mar-25	Jan-25
Price / YTM	55% / 500%	48% / 100%	32% / 148%
Issue am't., \$ m	700	500	600
Outstanding, \$ m	70	150	188
Coupon (S/A)	9.375%	9.625%	9.75%
Amortization	\$35m: Sep'22 & Mar'23	\$25m S/A Sep'22-Mar'25	\$37.5m S/A Jan'23-Jan'25

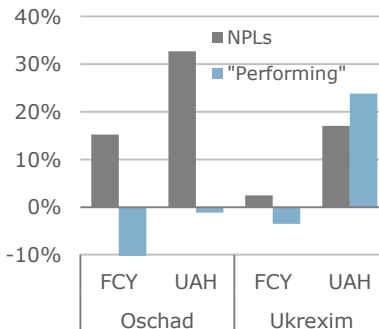
## End-May asset structure, USD mln



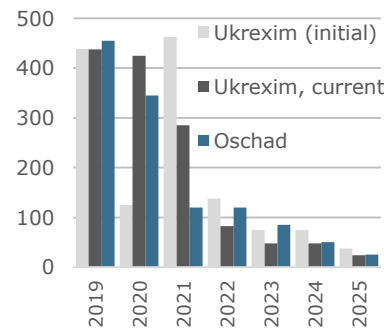
## End-May liabilities, USD mln



## Change in loans, Jun.1, 2022 YTD



## Eurobonds repayment schedule, \$ mln



## Foreign currency interest rates

	Oschad	Ukrexim
<b>Liabilities:</b>		
Term deposits (current offers)	0.10% - 0.30%	0.35% - 0.75%
Eurobonds	9.38% - 9.63%	9.63% - 9.75%
Loans from int'l banks & IFIs*	2.80% - 5.87%	0.68% - 7.70%
<b>Assets:</b>		
New gov't USD bonds	4.0% - 4.5%	

# Ukrainian Railways (UZ): Part of Ukraine's defense infrastructure

## Company profile

Ukrainian Railways (UZ) is state-controlled monopoly operating one of the biggest railway networks in Europe. The company is the only owner of railway infrastructure and sole provider of passenger rail transportation services, and a monopoly provider of most cargo transportation services (except the provision of railcars). The company generates its profits in the cargo segment, while its passenger segment remains loss-making due to low ticket prices.

## Tariff breakthrough in 2021

Unlike for Naftogaz, which suffered from a fiasco of corporate governance reform in the company, UZ benefited from it. In August-September 2021, Ukraine's infrastructure minister de facto took operating control over the company by appointing his advisor to the position of acting CEO, and then by heading a Crisis Management team for UZ. As a part of "crisis management", the government ruled to increase freight railway rates in 2021-2022. The new rates should have resulted in an 8% increase of average freight revenue from Sept. 2021 and another 15% in Jan. 2022. With the new rates, the company was planning to increase its revenue by 13% yoy and EBITDA by 40% yoy to UAH 20.2 bln in 2022. Before that, the company was rarely able to adjust the freight rates.

## Among the biggest victims of war with Russia, in absolute terms

The aggressor state is targeting railway infrastructure in all regions of Ukraine, to prevent Ukraine from being able to defend itself. According to UZ estimates, it will have to spend over **UAH 100 bln** (more than its annual revenue) to recover damaged assets. While this number is hard to check, it is clear that UZ's losses will be growing for as long as the war continues.

Another consequence of the war is the collapse of business activity and closure of seaports, which led to a **60%-65% yoy decline of UZ's freight traffic**. For most goods transported in Ukraine, seaports were not competitors but complements to railroads. With the closure of seaports, UZ was not able to substitute any sizeable part of traffic simply because its rail gauge (1520 mm, the same as in Moldova and rival Russia & Belarus) differs from the standards of all the neighboring EU countries (1435 mm), making railway shipment to any EU-based seaports a challenging task.

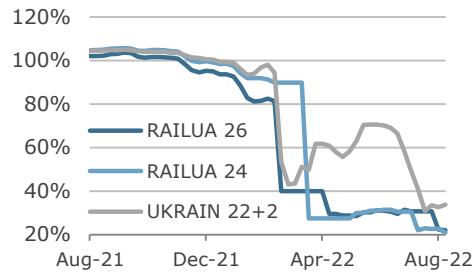
Besides this, UZ is playing **humanitarian role** to evacuate people from war-torn regions to safer places, as well as to help the Ukrainian army with logistics (no information available whether this is compensated). The company also decided to not increase prices for commercial passenger transportation, which was loss-making even before the war.

In late June, the government ruled on a **70% freight rates increase** to partially compensate expected UZ's revenue decline due to freight traffic collapse. Such adjustment will only bring its revenue to about 70% of last year's level and 60% of the 2022 plan.

Nevertheless, with this rate adjustment, UZ will **transfer part of its costs to Ukrainian business** (about UAH 11 bln just this year). Other partners of UZ, including its creditors, are **likely to be asked to share some costs** as well.

**Although UZ' bonds are repayable in two-four years from now, and the company has no large debt maturing before that, we are skeptical about UZ's ability to continue servicing the bonds on their initial conditions. We assess a restructuring of UZ Eurobonds, on the conditions offered by MinFin/Naftogaz, or more distressed, as inevitable.**

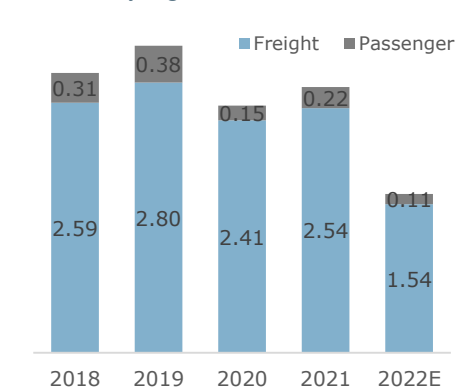
## Bond prices, % of par



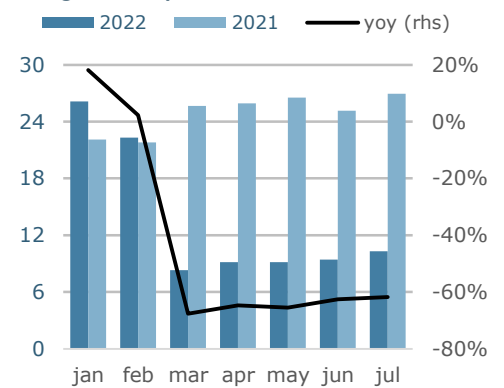
## Bond parameters

Ticker	RAILUA	
Rating (Fitch)	C	
Pre-war rating	B	
Maturity	Jul-24	Jul-26
Price / YTM	21% / 126%	22% / 65%
Issue am't., \$ m	595	300
Outstanding, \$ m	595	300
Coupon	8.25% S/A	7.875% S/A

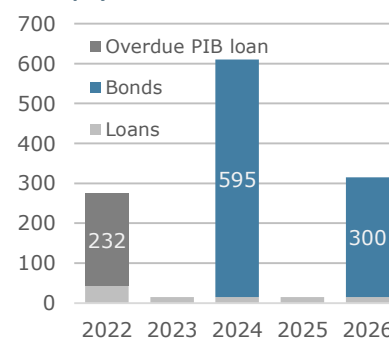
## Revenue by segments, USD bln



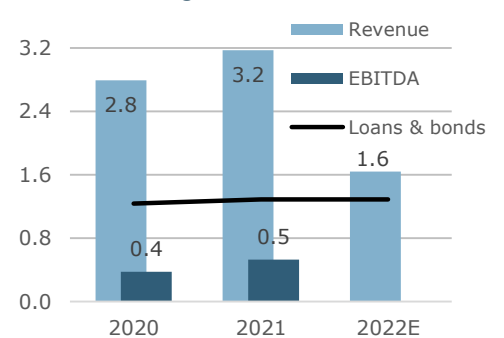
## Freights transported, mmt



## Debt payment schedule, USD mln\*



## Selected leverage metrics, USD bln



# VF Ukraine: Fundamentals remain good

## Company profile

VF Ukraine (Vodafone Ukraine) is the country's second-largest mobile telecom operator with a market share of about 37%. The company uses the Vodafone trademark based on an agreement with British Vodafone. In 2003-2019, the company was under the control of the Russian group MTS, in late 2019 it was sold to a subsidiary of NEQSOL, an Azerbaijani holding. The buyer paid about USD 734 mln in cash, of which it borrowed USD 464 mln. In February 2020, VF Ukraine issued USD 500 mln Eurobond to refinance the buyer's debt. The bond, maturing in 2025, is the only company's borrowing.

## Remains cash generating business despite war

The company's operations are among least affected in Ukraine by the Russian invasion. Its 1Q22 results were strong (EBITDA up 15% yoy in UAH terms) thanks to short-term benefits from the beginning of war in Ukraine. In the following quarters, its results will worsen, but not dramatically, we expect.

**The company's ability to generate cash remains solid. With this, as well as the likely intention of the owners to continue building their IR, we expect VF Ukraine will continue to service its Eurobond. VF Ukraine repurchased over 11% of its Eurobond in the last two years, and we expect it will continue doing so if there are no administrative barriers.**

## Effect of Russian aggression

According to the company's report, as of mid-May, the effect was:

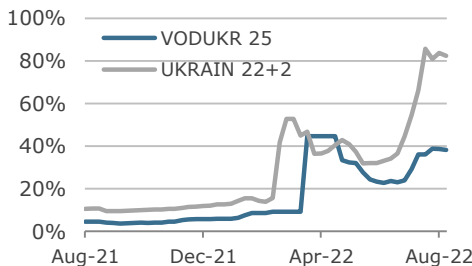
- Damage of about 2% of telecom equipment.
- Cease of operations at about 10% of covered territory, meaning the company continues to operate in many occupied locations.
- Decrease of active customer base by 4.6% in March.
- Exit of about 1.6 mln customers (8-9%) and about 10% of employees from Ukraine.

Our understanding of the developments on Ukraine's mobile market is the following:

- **Early war stage (about 1-2M): surge in demand for communication services due to:**
  - More data traffic, as demand for digital info jumped with the start of the war.
  - Surge of international roaming traffic (servicing Ukrainians that have escaped from the war, servicing traffic generated by the occupiers).
- **Next stage of war: revenue decline due to the loss of active customers**
  - Ukrainian operators are losing active customers as those who left Ukraine are gradually becoming customers of local providers.
  - Data traffic of users is calming down.
  - Provision of social services (cheap roaming etc) and humanitarian aid are depressing revenue and inflating costs.

All this, however, should not be dramatic for VF Ukraine in 2022 (we see EBITDA decline of no more than 15% in UAH terms). If it won't pay dividends and other unnecessary bills this year, it can accumulate USD 50-70 mln for deleveraging, we estimate. Its end-2022 Net debt to EBITDA ratio should be 1.4-1.5x (1.1x in March) which is far from the bond covenant of 2.5x.

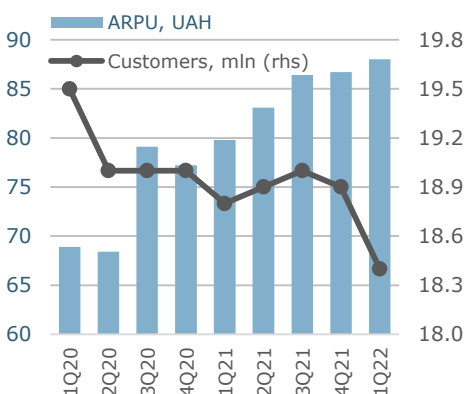
## Bond YTM



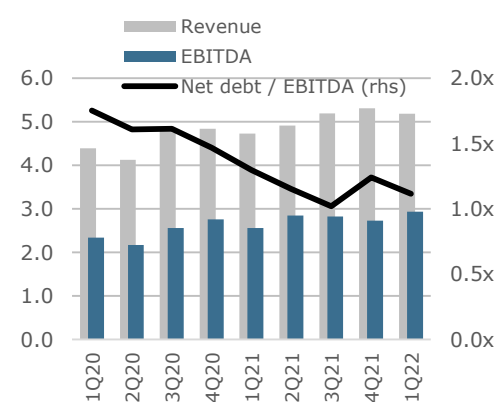
## Bond parameters

Ticker	VODUKR
Rating (Fitch / S&P)	CCC / CCC+
Pre-war rating	B / B
Price / YTM	51% / 38%
Maturity	Feb-25
Issue am't., \$ m	500
Outstanding, \$ m	406
Coupon	6.2% S/A

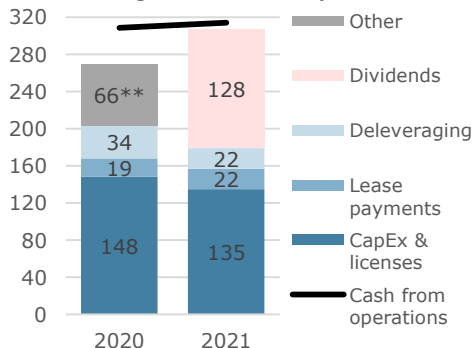
## Key operational metrics



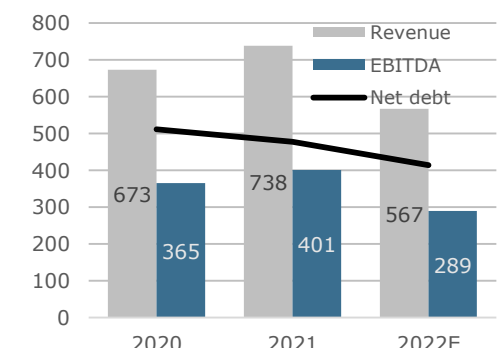
## Selected financial metrics, UAH bln



## Use of cash generated from operations\*



## Selected financials, USD mln



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