

Ukraine Macro & Fixed Income Update

Resilient economy, responsible corporate issuers

May 08, 2023

Executive summary

The Ukrainian economy remains resilient to the biggest geopolitical shock which resulted in cutting off the territory that used to generate about 10% of GDP and surge in security risks. Ukraine's **29% yoy contraction of GDP in 2022 positively surprised even the government**. The economy is set to stabilize this year, backed primarily by increased government expenditures and some recovery of supply chains.

Valuable international financial and military assistance, worth over USD 70 bln in 2022 and expected to exceed USD 100 bln in 2023, covers all Ukraine's usual budget needs and most of the needs to finance the defense. With Western assistance, **Ukraine increased its defense budget to nearly the level of the aggressor-state** and is positioned to perform a massive offensive to liberate most of the territories it had temporarily lost in 2014-2022.

Ukraine's announced massive counter-offensive operation, if successful, could lead to major geopolitical changes to Ukraine's benefit. At the same time, **our base-case scenario is that the war with Russia will continue for at least one more year**.

Ukraine's partners committed to finance up to USD 45 bln of Ukraine's total budget gap for this year. Increased budget compensations for militaries stimulate recovery of consumer demand and secure record-high liquidity of Ukraine's banking sector.

Ukrainian hryvnia avoided any shock at the beginning of invasion and, under strict control from the central bank, has stabilized after 20% devaluation vs. US dollar in July 2022. Since then, the official exchange rate remains intact and the market rate, after some volatility in mid-2022, has converged to the official one. With sizable international support, **the central bank will be able to keep the exchange rate fixed in the short-term as well as continue building up gross international reserves**.

The recently launched IMF program with Ukraine assumes a new round of restructuring of external sovereign and quasi debt in 2024, making Eurobonds of the government and of most state companies not investable. **Meanwhile, all the private issuers continue servicing their Eurobonds**, despite war-related challenges and payment barriers erected by the central bank. **Most corporate bond issuers look not as desperate as it could be imagined from abroad**.

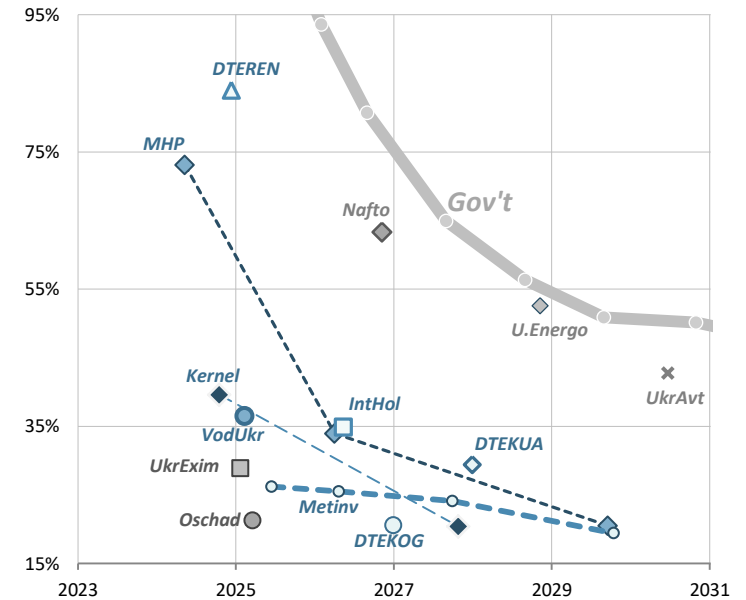
All the Akhmetov-related issuers, some of which heavily suffered from Russian aggression, not only continue to smoothly service their bonds, but also are buying back them at market prices. This suggests such companies **remain committed to avoid any debt restructuring**, even though some of them do not look capable of independently servicing debt in the mid-term.

High short-term risks and apparent lack of refinancing opportunities for corporate issuers in at least the next two years make bond yield curves inverted, **thus offering good opportunities to invest in mid-term bonds**.

Based on risk-reward balance, we choose bonds of DTEK Oil & Gas (DTEKOG'26), VF Ukraine (VODUKR'25) and DTEK Renewables (DTEREN'24/DTEKUA'24) as **our top picks**.

For those willing to limit their risks, we recommend investing in bonds of DTEK Oil & Gas (DTEKOG'26), VF Ukraine (VODUKR'25), Interpipe (INTHOL'26) and state banks (OSCHAD'25, EXIMUK'25) which have both, good reasons and internal financial capability to repay their bonds on maturity.

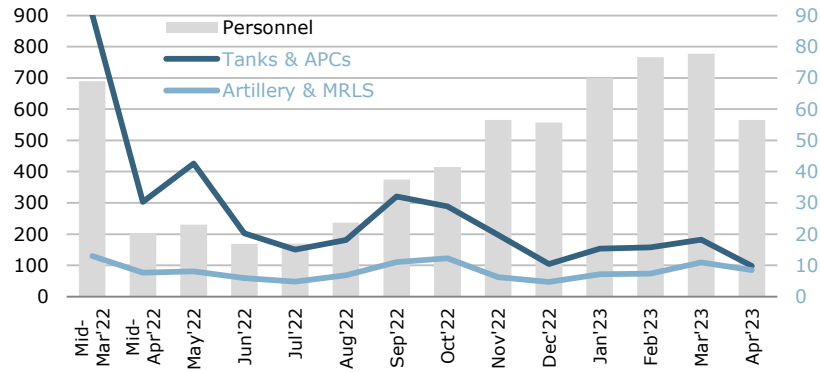
Eurobond yield map (offer, May 08)



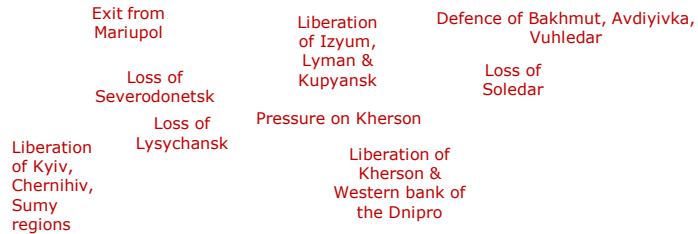
War Update

War statistics

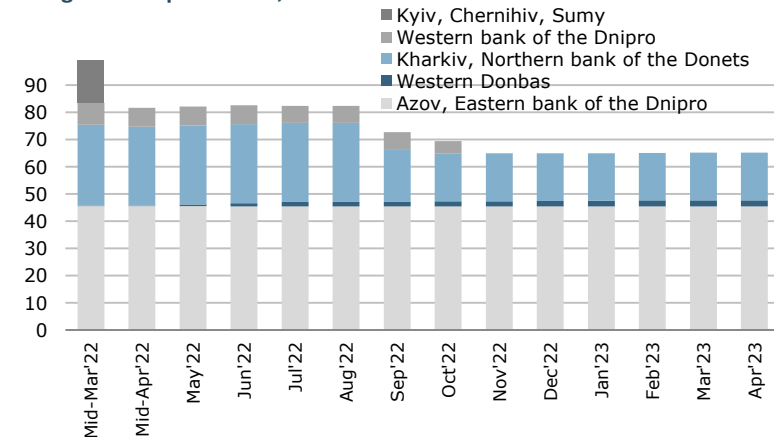
Occupant losses per day



Key events

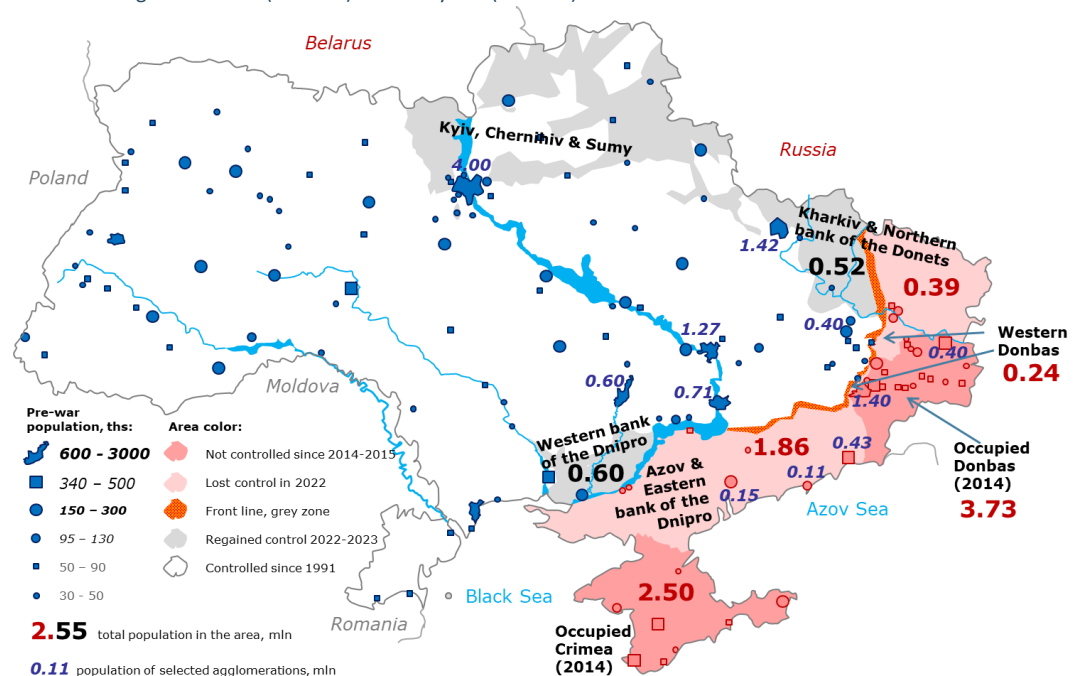


Change in occupied area*, ths km²



Since the beginning of Russia's full-scale invasion in February 2022, Ukraine was able to make three successful counter-attacks to liberate about a half of territory that the aggressors captured at the initial stage of war.

- The most successful in terms of liberation was the initial stage of war (March-April 2022) when Ukraine forced the Russian army to withdraw from the northern regions of Kyiv, Chernihiv and Sumy. At this stage, the aggressor suffered maximum losses in equipment.
- After that major defeat, the aggressor's army concentrated its efforts on Kharkiv, Western Donbas and Mariupol, having captured the latter in May, with heavy losses. Since then, the aggressor significantly scaled down use of tanks and armored vehicles, re-focusing on use of artillery and cannon fodder. It reached its last significant gains by capturing cities of Lysychansk (93.3 ths pre-war population) and Severodonetsk 99.1 ths) in late June and early July.
- In autumn, Ukrainian forces made two major attacks to liberate most of the occupied part of north-eastern Kharkiv region (including towns of Izyum, 45.0 ths, Lyman, 20.1 ths, and Kupyansk, 26.6 ths), as well as liberate southern city of Kherson (279.1 ths) and the entire western bank of the Dnipro river.
- Winter passed with intensified Russia's pressure in Western Donbas where it suffered heavy personnel losses, with only "significant" gain being the capturing of Soledar (10.5 ths) and some progress towards encircling of Bakhmut (71.1 ths) and Avdiivka (31.4 ths).



Ukraine vs Russia: Military budgets become comparable

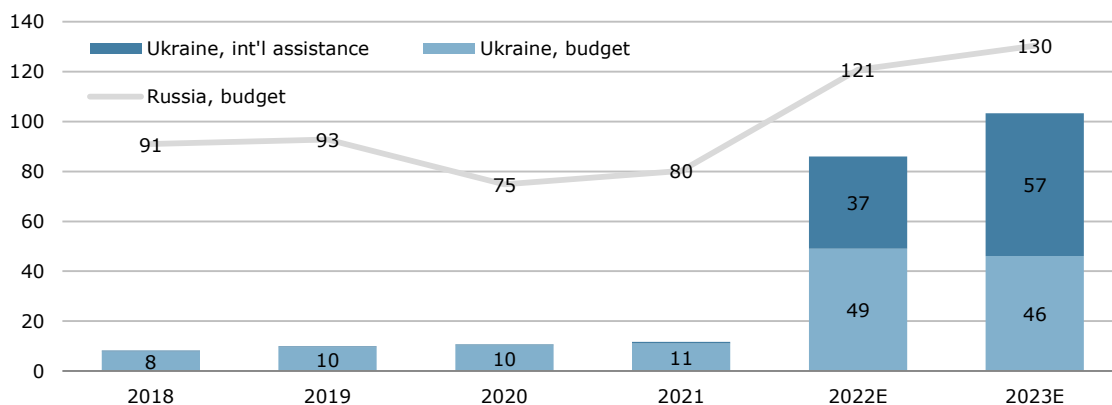
Ukraine was able to mobilize itself and mobilize Western partners to finance its defense against Russian aggression. If before the invasion, Ukraine's state budget expenditures for defense and security purposes were about 8x smaller than the Russian budget, in 2022 and 2023 the difference is less than 1.5 times, we estimate.

Taking into account technological superiority of Western military assistance to Ukraine, as compared to Russia's capabilities, we can state that Ukraine's military potential is getting comparable to that of the aggressor-state:

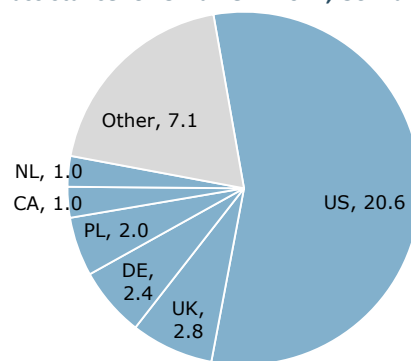
- On one hand, Russia historically had a larger stock of hardware and ammunition. On the other hand, a lot of modern military equipment of the aggressor has been damaged in the course of war. In this way, Ukraine's military capability is going to improve, while Russia's is likely to further deteriorate, so that Ukraine has a chance to reach superiority in terms of available military equipment.
- On top of official military expenditures and commitments, the nation has also mobilized itself, with enormous amounts of people's donations to support the defense. In addition, many countries supporting Ukraine tend to not report their involvement in military assistance, meaning the actual figures of Ukraine's military support could be higher than officially announced (e.g. according to [the research](#) of Kiel Institute for the World Economy, total committed military assistance for Ukraine is USD 65 bln as of Jan. 15, 2023). This, however, seems to be counterbalanced by Russian expenditures of "private military companies" which seem to have large budgets as well.
- Thus far, apparent lags of Ukraine as compared to the aggressor are in aircrafts, long-range missiles and artillery ammunition.

In 2023, Western support of Ukraine will become higher than in the previous year, we expect, mainly because of more sustainable supply of modern equipment (tanks, APC, air defense systems) from the countries which were lagging with their assistance (like Italy and Spain), as well as continuing firm support from the most active assistance providers (US, UK, Germany, Poland, Canada, the Netherlands, the Nordic and Baltic states).

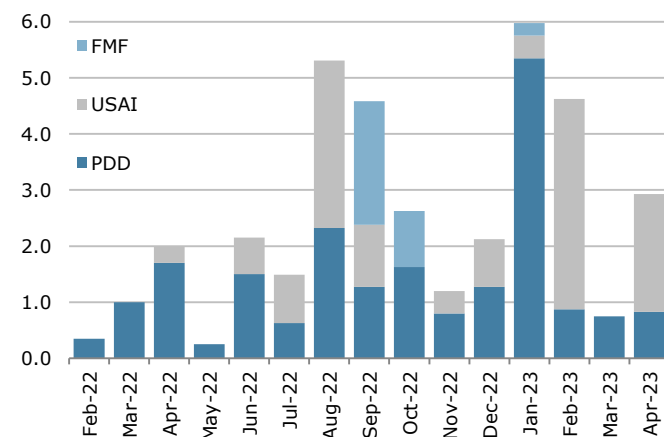
Defense & security budgets, USD bln



Structure of international military assistance for Ukraine in 2022, USD bln



US military support of Ukraine by programs, USD bln



Liberation of Ukraine: How it can develop

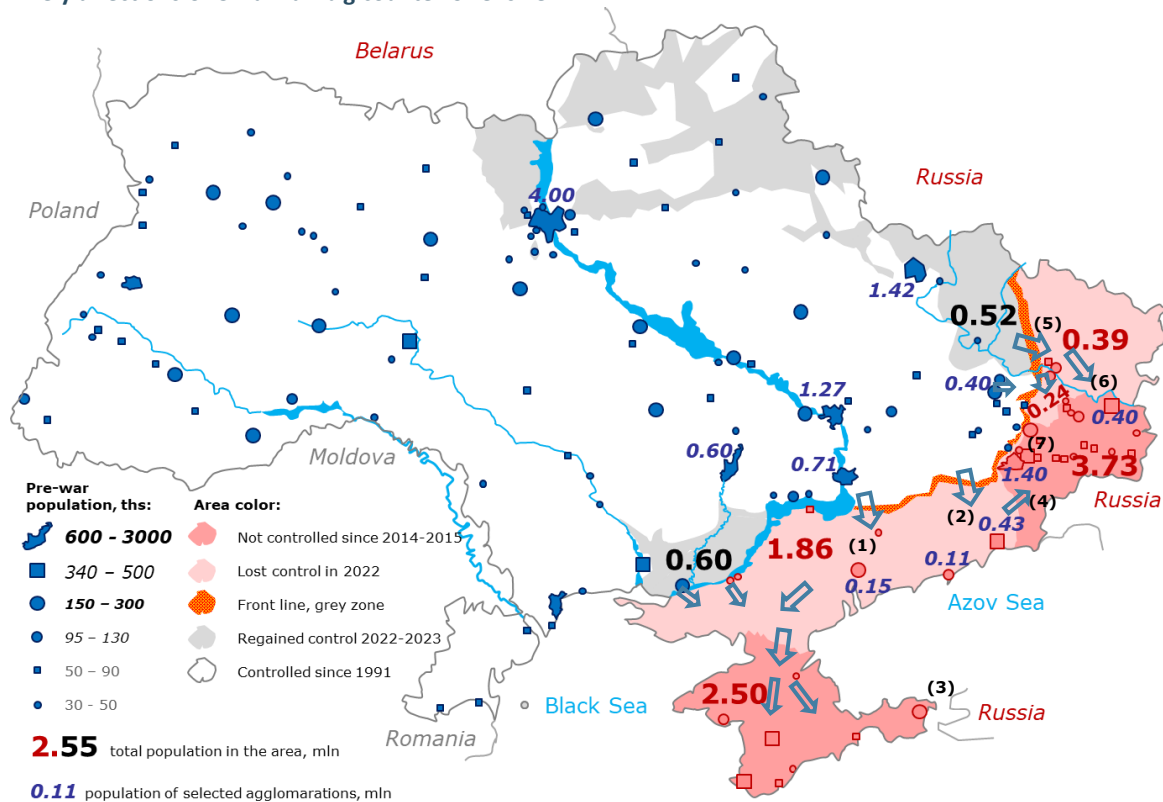
With sufficient supply of heavy military equipment from abroad, Ukraine has a good chance to convene an offensive to liberate most of its territory already in 2023.

- The most straightforward direction of Ukrainian attack is to the south from Zaporizhia to Melitopol (1) or/and from Vuhledar towards Mariupol (2), with simultaneous damage of the bridge connecting Russia and the occupied Crimea (3). If such attack is successful:
 - Russia will have troubles in supporting its forces in Crimea and the eastern bank of the Dnipro, and thus will have a limited ability to resist there. Therefore, the chance to liberate the Azov shoreline and the Crimean peninsula will be high.
 - With securing of Mariupol area, Ukraine will have an option to attack towards Donetsk agglomeration from the south (4).
- Another straightforward direction of attack is in the north targeting the area of Severodonetsk (5) and Luhansk (6).

In case of success, Ukraine could liberate with relatively low losses most of its occupied area, perhaps except the densely-populated area between Donetsk, Horlivka and Alchevsk (7).

Thus far, we see a good chance for Ukraine to liberate most of its territory, except some densely-populated locations in Donbas, in the nearest 15 months. We expect that by June, it will be clear whether such scenario is feasible.

Likely directions of Ukrainian big counter-offensive



Economy Update

Ukraine GDP: Not as bad as it seemed to be

Ukraine's economy had its worst year in the history, falling by 29% yoy in 2022:

- After a shocking decline by 36.9% yoy in 2Q22, it started recovering to demonstrate a 30.6% fall in 3Q22 and was predisposed to show a further recovery in the consequent quarters.
- However, Russian attacks on energy infrastructure, which started in mid-October, undermined the recovery and forced Ukrainian economy to fall 31.4% yoy in 4Q22.

Importantly, UkrStat data shows much better economic performance than other state bodies, the Economy Ministry and the National Bank, estimated.

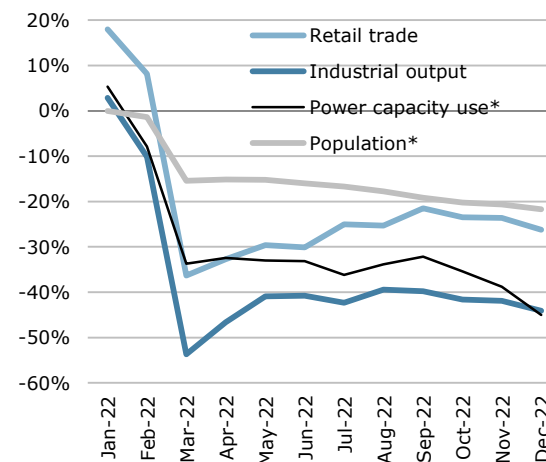
Interruptions of power supply caused much less damage for the Ukrainian economy than could have been expected (we saw a 39% yoy decline of GDP in 4Q22 and about 35% decline in full year 2022). That means Ukrainians have proved to be able to adapt fast to new reality, including power cuts. For instance, Ukraine imported small power generators for over 2 GW of total capacity in 4Q22, which is over 1/6 of available capacity in power grids.

The key driver of relatively solid economic recovery in late 2022 was government consumption: budget expenditures increased by about 40% yoy in real terms. One of the biggest items of budget spending (28%) was military salaries which increased 4.5x yoy in real terms and contributed significantly to a support of household consumption. The military salaries were comparable to 28% of aggregate household consumption in 4Q22.

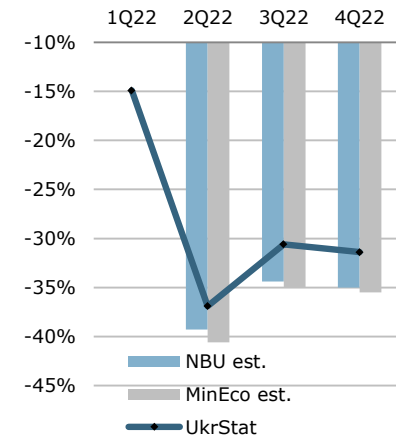
The lagging item of 2022 was industry. Its backbones used to be iron ore mining and steel production (heavily suffered by military actions and closure of seaports), heavy machinery (demand collapsed) as well as power generation (suffered from targeted attacks on generating facilities). Also weak performance was demonstrated by agriculture which suffered from both significant decline in cultivation area and collapse in crop yields due to under-investments in crop production.

In 2023, we expect Ukraine's real GDP will show close to zero growth, with negative performance in 1Q (due to high comparative base) and a mid-single-digit growth in 3Q-4Q. Thus far, we see that investments could become the only component to show exceptional performance this year.

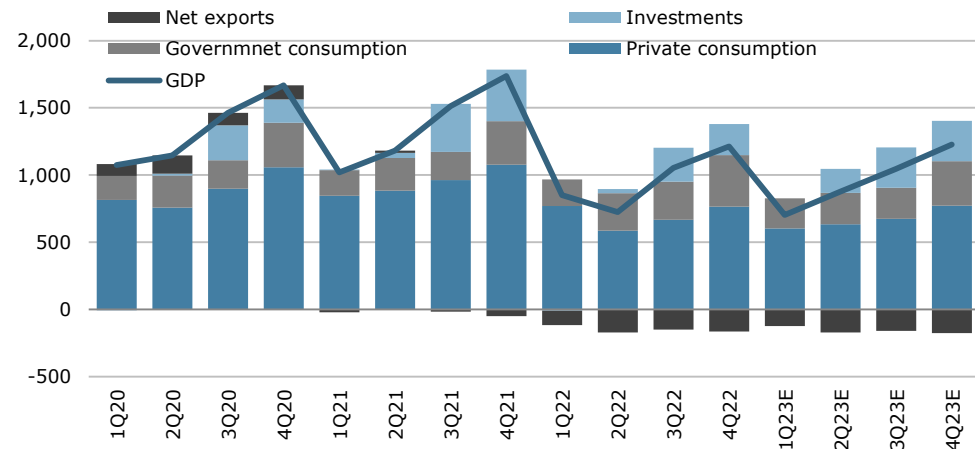
Real changes, yoy



Real GDP



GDP breakdown, UAH bln in constant 2021 prices



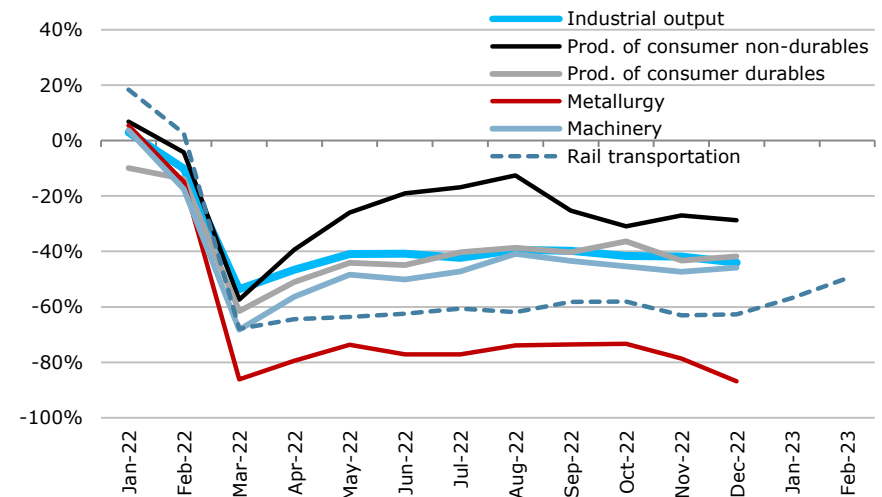
Industrial output: Still has not recovered from shock

Industrial sector is the biggest victim of Russia's aggression against Ukraine. The annual result is a 36.9% yoy decline, with some recovery in 3Q22 (-40%) interrupted by power cuts of 4Q22 and resulted in a 44% yoy decline in 4Q22. Key movers in the industry were:

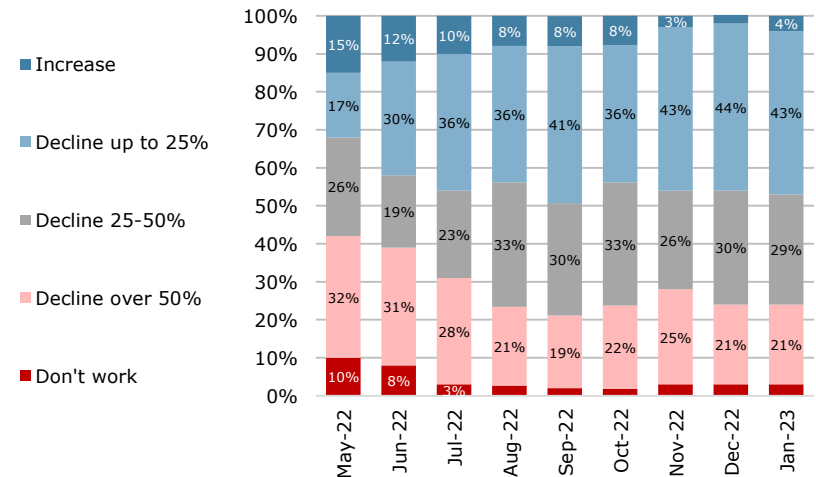
- Metallurgy (-67% yoy in 2022, about -74% in 4Q22), which entered a perfect storm: enterprises accounted for about 40% of pre-war steel output have been damaged along with their city of Mariupol; full blockade of sea ports made cross-border logistics extremely complicated which severely affected input and output chains. As a result, the metallurgy sector experiences about a 75% decline in output compared to pre-war levels. With not much chances for de-blockade of sea routes for non-food items, the metallurgy sector is unlikely recover fast in 2023.
- Production of consumer non-durables (mostly food) was the least suffered sector (-24% yoy in 2022) due to relatively strong domestic demand. It has recovered to about a 18% yoy decline level in 3Q22, but suffered in 4Q22 (-29% yoy) due to power supply shortages. This segment has a good chance for further recovery in 2023 as soon as domestic consumer demand is growing.

We see the industrial output to gradually recover starting 2Q23, but on average it will likely end the year in the red.

Real changes, yoy



Enterprises' output vs. pre-war level, IER surveys*



Agriculture: Another tough year ahead

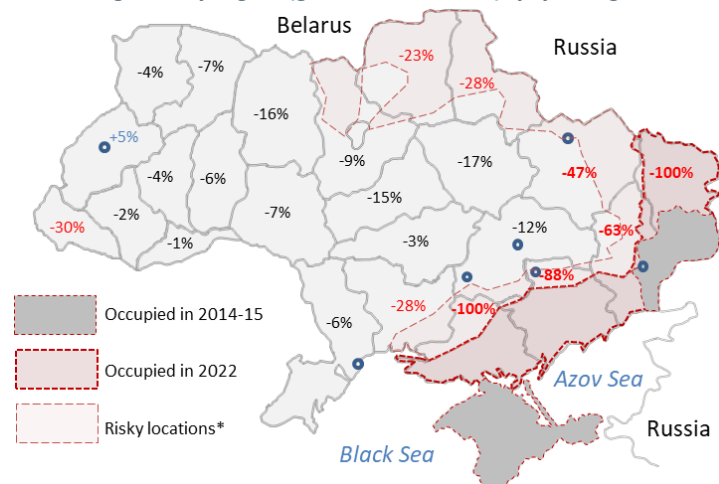
Military actions affected more than 20% of Ukrainian territory in 2022, which brought a negative impact on farming operations. Importantly, farming activity decreased in vast majority of Ukrainian regions, including those not touched by the Russian army. Due to heavy uncertainty about the security situation in Ukraine, most farmers under-invested in their 2022 harvest, so crop yields suffered everywhere. Consequently:

- Harvesting area of grains and sunflowers decreased 31% yoy in Ukraine, while their total harvest fell 41% yoy.
- In four most suffered (partially occupied) regions** (which accounted for 14% of grain and sunflower harvest in 2021), the harvest declined 90% yoy amid a 87% decline in area.
- Other regions also demonstrated a deep decline in areas and yields.

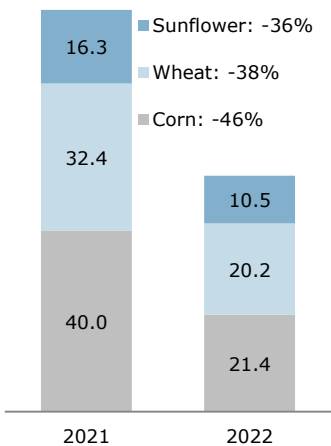
The 2022 decline in cultivation areas even in the regions that were not affected by military actions, as well as availability of liberated locations in the northern and southern parts of Ukraine suggests there is room for area growth this year. However, with limited access to financing the farming operations and risks of inability to sell future harvest imply that in the best case, sowing area won't increase this season. This, as well as limited ability to finance proper farming technologies, will lead to further decline in crop yields. That said, we see total harvest could further decline in 2023 – by about 8-12% yoy.

Meanwhile, Ukraine's Agriculture Ministry sees total harvest of grains and oilseeds will decline 11% yoy in 2023.

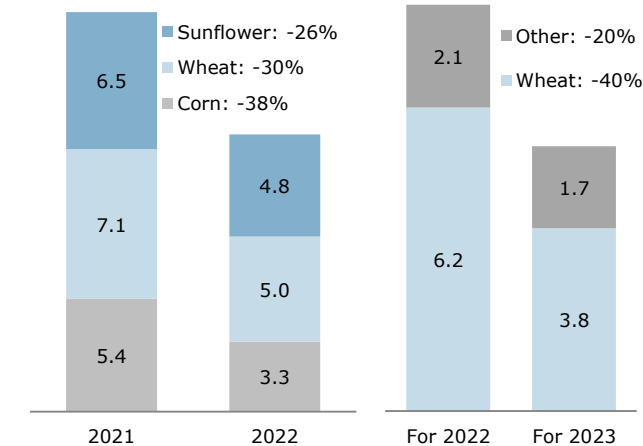
Harvesting area by region (grains & sunflower), yoy change in 2022



Harvest of key crops, mmt



Sowing area of key crops, mln ha Winter sowings, mln ha



Harvesting by regions, yoy change in 2022

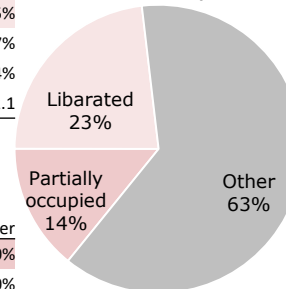
Liberated regions, yoy**

	Grains	Sunflower
Area	-42%	-5%
Harvest	-52%	-37%
Yield	-18%	-34%
Yield, t/ha	4.5	2.1

Partially occupied regions, yoy**

	Grains	Sunflower
Area	-87%	-90%
Harvest	-91%	-90%
Yield	-31%	1%
Yield, t/ha	2.7	2.0

grain & sunflower harvest structure, 2021



Other regions, yoy

	Grains	Sunflower
Area	-13%	-4%
Harvest	-28%	-16%
Yield	-18%	-12%
Yield, t/ha	4.7	2.2

Ukraine total, yoy

	Grains	Sunflower
Area	-33%	-26%
Harvest	-42%	-36%
Yield	-14%	-14%
Yield, t/ha	4.6	2.2

State budget: Fiscal gap is close to USD 45 bln in 2023

Ukraine's state budget for 2023 was initially planned based on assumption of only half-year of active military actions: military expenditures for the full year were initially planned at the level comparable to 2H22. Now that the base-case scenario has changed for the full-year war in 2023, the parliament has adjusted the state's military expenditures accordingly:

- Expenditures for defense and security upgraded by 44% to UAH 1,685 bln (USD 46 bln).
- Including about 88% adjustment of payments to military personnel.

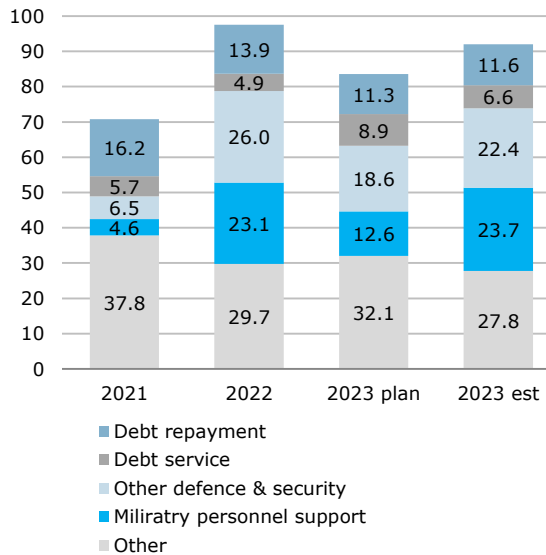
The adjusted budget is now closer to our estimate. Moreover, we see that the government will need much less international support of the budget than we initially estimated, primarily because of slightly higher expected budget incomes, as well as higher domestic borrowing of the government. In particular, we expect the government will be able to roll over all the domestic debt repayments (including those repaid to the NBU).

If so, Ukraine's international financing needs will amount to about USD 45 bln in 2023, or USD 3.7 bln per month. This does not differ much from the year 2022 (USD 3.4 bln per month since March 2022). Among possible sources of such financing, we see:

- About USD 14 bln of international grants (including grants from the U.S. for USD 11-12 bln). In 4M23, USD 4.8 bln of grants were allocated.
- About USD 19 bln (EUR 18 bln) of concessional debt from the EU (in 4M23, USD 6.5 bln were allocated).
- About USD 3.6-4.5 bln of IMF loans (including USD 2.7 bln received in early April).
- The rest, or USD 7.5-8.5 bln, will be covered with other loans (USD 2.4 bln received in 4M23).

Meanwhile, with the expected funding needs and committed support, Ukraine's state debt will only slightly exceed 80% of GDP as of end-2023, which is a sharp contrast to the recent IMF forecast of 98%.

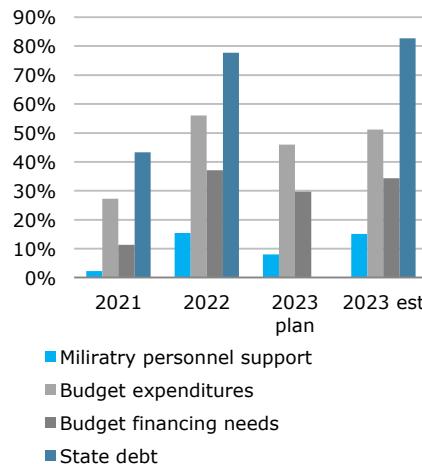
Key budget outflows, USD bln



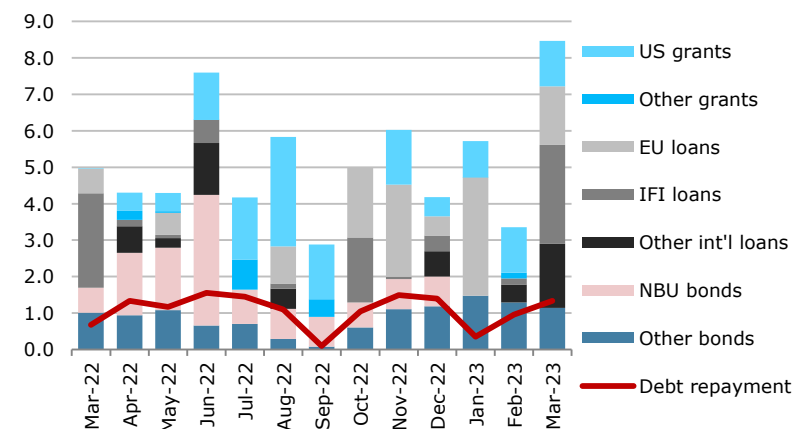
Key budget inflows, USD bln



Budget parameters as % of GDP



Financing of state gap, USD bln



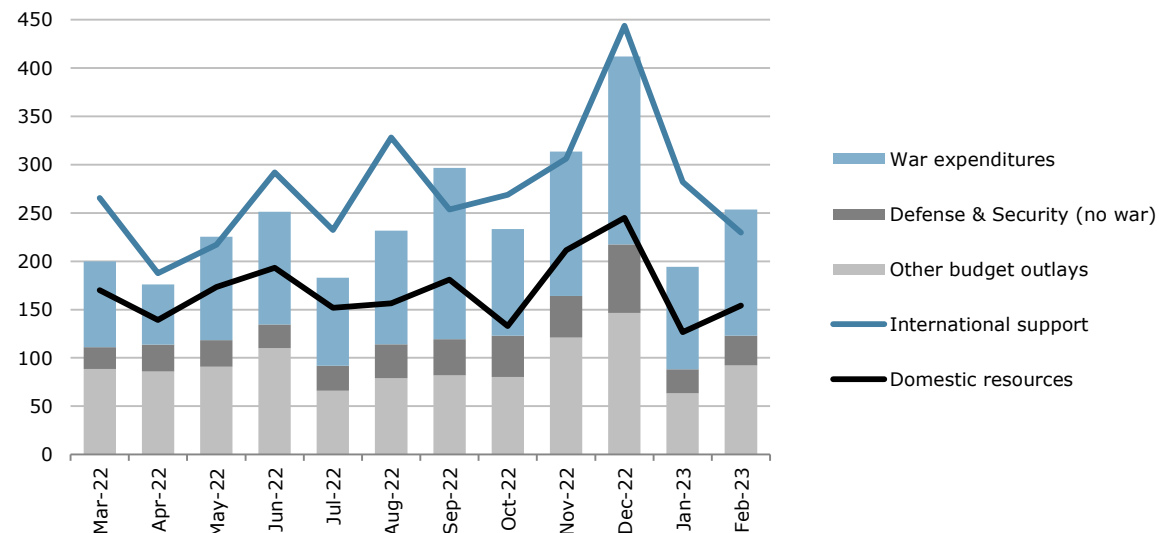
Ukraine state budget: Sustainable without war expenditures

The surge in war-inflicted expenditures for security and defense is painful for the state budget. Without international support, Ukraine won't be able to afford such expenditures. However, elimination of such expenditures from public accounts (see the chart) demonstrates that Ukraine is able to cover by itself all the expenditures not related to the war.

We note that the diagram ignores the fact that war-related expenditures generate additional budget incomes (at least 20%, we estimate). But even if we adjust for that extra revenue, Ukraine's state budget wouldn't require massive international support, providing there is no war.

Also, that does not mean Ukraine will remain self-sufficient in internal financing of state outlays after the Russian aggression ends: Ukraine will need massive investments in economic recovery which would require significant international support.

Coverage of Ukraine budget expenditures, UAH bln*



* Note: "No war" defense expenditures – modelling of such expenditures without war (1.1x multiplied by last year's expenditures); "War expenditures" are difference between "No war" and actual security and defense expenditures. Domestic resources – own revenue of state budget plus domestic funding of the deficit; Other budget outlays include debt repayments. Source: Finance Ministry, Concorde Capital estimates

Large payments to militaries: Supporting Ukraine economy

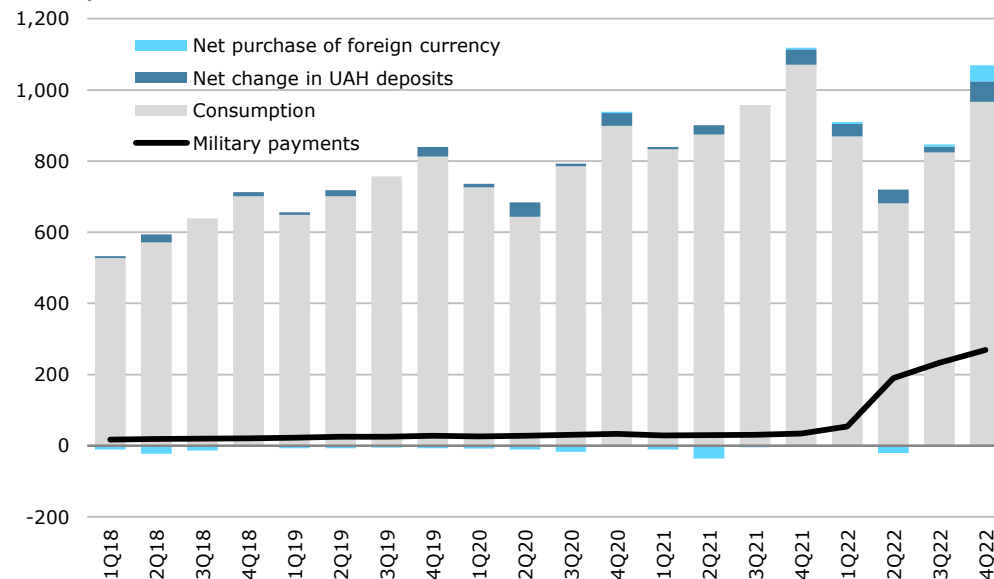
Ukrainian government awarded large bonuses to all participated in protection of the country from the Russian invasion (UAH 30 – 100 ths per month) which resulted in an increase of respective budget outlays from UAH 10 bln per month in Jan-Feb 2022 to UAH 80 bln per month in May '22 – February '23 (or 28%-38% of monthly budget expenditures).

Size of payments to militaries was comparable to 28% of total household consumption in 2Q-4Q of 2022.

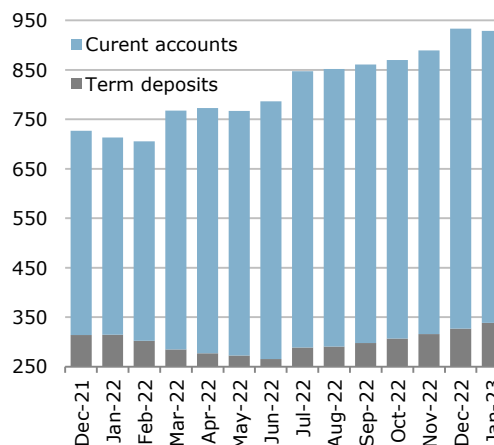
Naturally, such financial support was among key drivers of recovery in household consumption, as well as a significant contributor to the increase of banking sector liquidity (money is being paid on banking cards) in late 2022.

Despite a significant increase in current accounts of individuals in banks, their total level remains very low comparative to other European countries (less than two months of household consumption). That implies a risk of fast decline in individual on-demand deposits as soon as household incomes (primarily from smaller budget outlays for compensation of militaries) subsides.

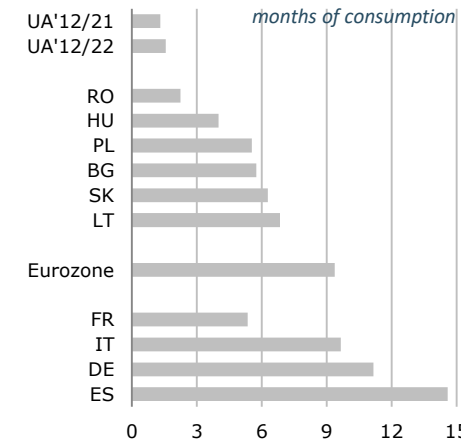
Military salaries vs. other household indicators, UAH bln



Individual accounts in banks, UAH bln



Individual current accounts, end-22



Banking liquidity: Surged due to military incomes, corporate savings

Deposit base of Ukrainian banks continued to grow in 2022 as:

- Businesses stopped their investments and created safety cushions instead (benefiting private banks mostly);
- Warriors receive high compensations and are creating some safety cushions as well (payments mostly come to card accounts in state banks).

Meanwhile, the vast majority of client accounts' increase came to liquid on-demand accounts, while term deposits were not increasing.

High supply of short-term liquidity only intensified the bank's problems of money allocation that was present before the war. As the banks largely do not provide loans, they have to place even more money in:

- Correspondent accounts with foreign banks (all the excessive foreign currency liquidity),
- NBU's certificates of deposit, (CDs, where excessive hryvnia is allocated).

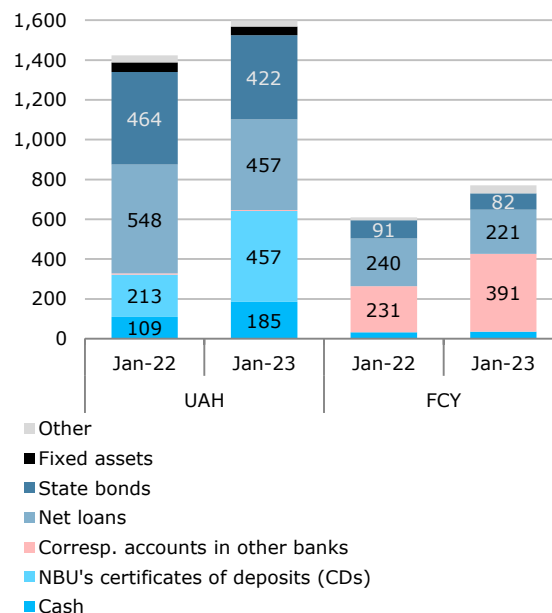
As a result, 29% of the bank's UAH-denominated assets were in CDs, and 51% of their foreign currency assets were allocated abroad.

Additionally, the NBU's tough monetary policy, with interest rates on CDs exceeding the state bond yields, led to some redistribution of banks' investments from state bonds to CDs.

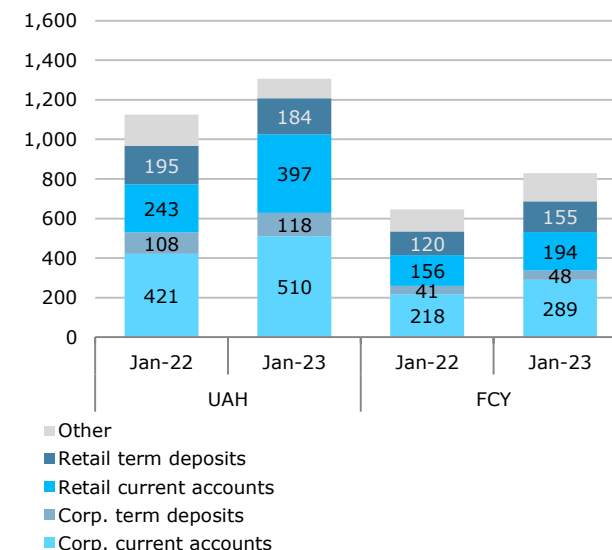
As budget outlays for military salaries are scheduled to remain at high levels in 2023, it is likely that excess liquidity of the banking sector will remain this year as well.

As soon as active battles stop, banks are likely to experience outflow from current accounts of both, individuals (due to decline of military payments) and corporate (due to their increased propensity to invest). The banks look prepared for that by keeping large amounts of liquid assets: cash, CDs (UAH) and correspondent accounts with international banks (foreign currency).

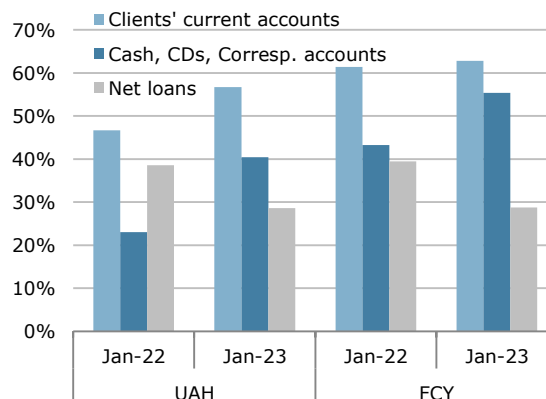
Banks asset structure, UAH bln



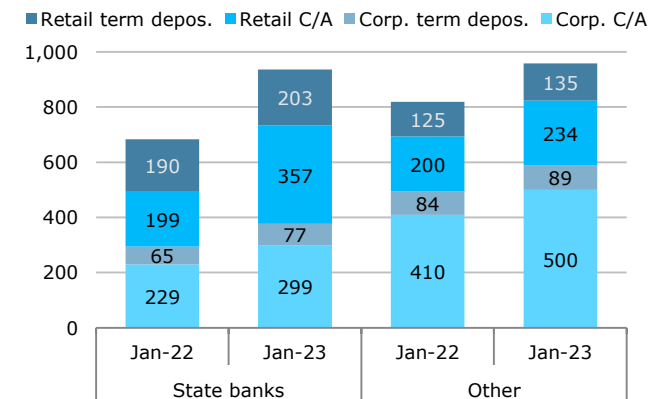
Banks liability structure, UAH bln



Selected items as % of total assets



Distribution of client accounts by banks, UAH bln



Banking P&L: Profits are supported by high interest rates on CDs

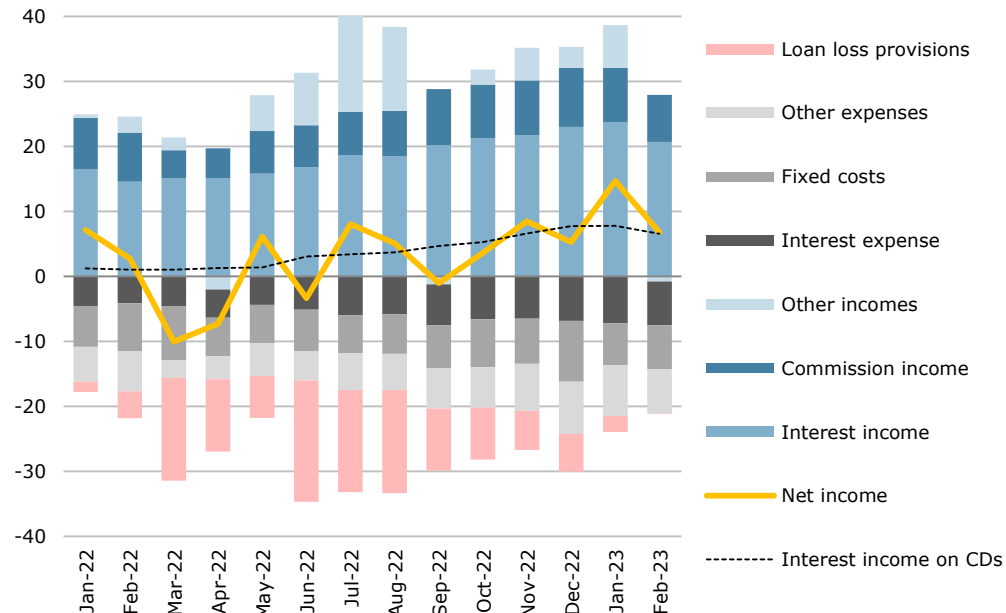
Ukrainian banks so far enjoy the NBU's tough monetary policy, which allows them to generate enormous profits on certificates of deposits (CDs) offering 23% rate since early June 2022. High CD rates demotivate banks from lending (which was otherwise nearly absent due to high security risks) and investing into local government bonds (which do not offer such rates).

The NBU lowered rates on overnight CDs to 20% since Apr. 7 and introduced an option of 3M CDs yielding 25% to the banks that are active in attracting retail deposits for 3+ months. That could increase the motivation of some banks to offer higher deposit rates. Meanwhile, higher competition for deposits will affect the banks' overall profits.

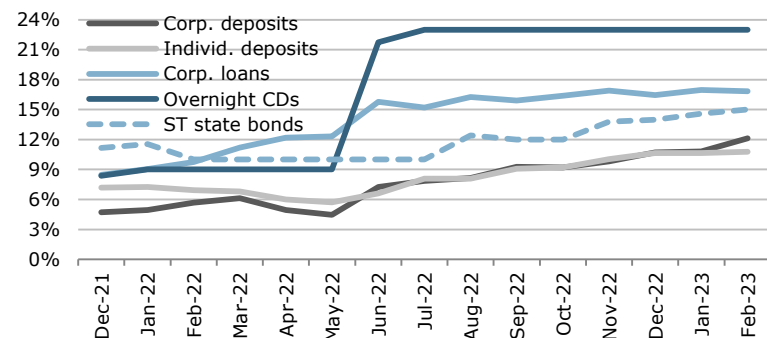
Large incomes on CDs were a major contributor to the increase of banks' profits in late 2022 and early 2023. The banks generated 33% of interest incomes from CDs in Dec. 2022 (vs. 7% in Jan. 2022).

Despite a catastrophic decline in business activity and large damages to the industrial sector inflicted by the war, banks are not hurrying to re-estimate their NPLs. An expected assets quality review by the NBU, to be made this year, should show a more fair picture of NPLs. In the short-term, such review is a key risk for the bank's profits and capital adequacy. The NBU does not punish the banks for insufficient equity during the war, but once the war ends, the need to raise capital will add to the problems for the system, in addition to expected liquidity evaporation.

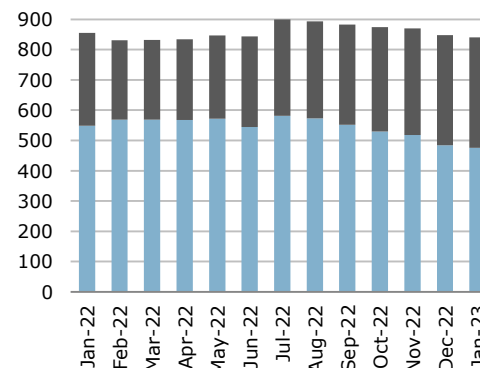
P&L of Ukrainian banking sector, UAH bln



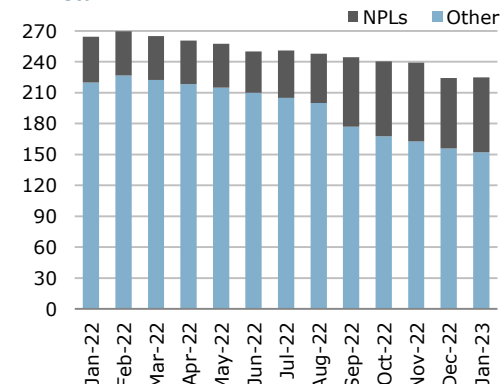
Interest rates, hryvnia



Reported loan quality, UAH bln: Corporate



... Retail



Ukraine trade balance: Imports stabilize after December surge

The structure of Ukraine's trade balance did not change much since last autumn, with food being dominated in exports and "travels" (expenditures of temporary refugees abroad) dominating in imports. The overall trade deficit amounted to USD 2.0-3.2 bln monthly over the last ten months, with the only exception being December 2022.

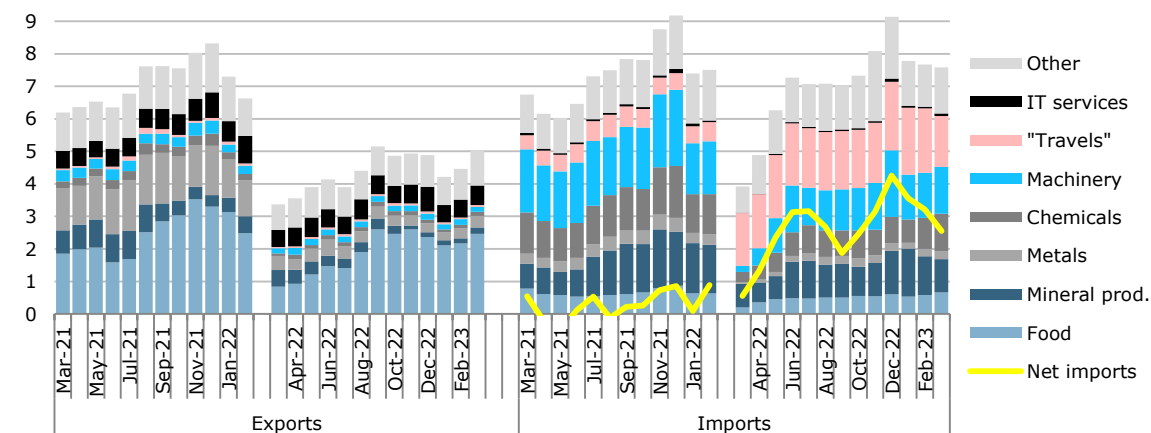
Last December, Ukraine significantly increased imports of power generators ("Machinery") and gasoline ("Mineral products") to power them. This was a measure to secure uninterrupted power supply for business and infrastructure in the environment of power cuts. Noticeable power cuts started in late October as Russian missiles started targeting power generation and transmission infrastructure. Based on data presented by MP Yaroslav Zheleznyak, in November-December alone, Ukraine imported about 471 ths of small and medium power generators. The situation with grid electricity improved in January and stabilized in February, which resulted in a decline of machinery and fuel imports.

Food exports were on the growing path in February-March after the January's low. Food exports remain sensitive to the functioning of the so-called grain corridor, which work is agreed upon with the aggressor state. We take the uninterrupted work of the corridor as a base-case scenario. Further on, we expect grain exports will gradually decline as commodity stocks are exhausting and the next harvest does not promise to be good.

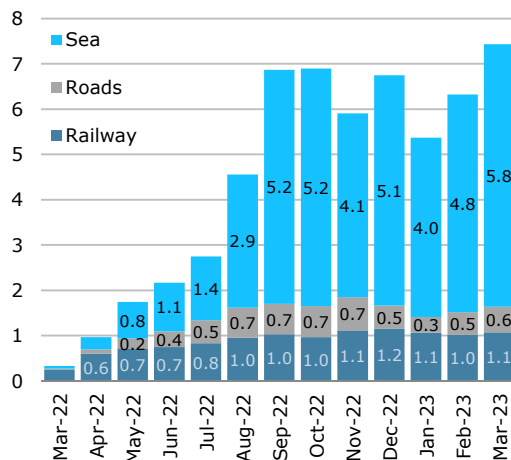
On a positive side for the BoP, "imports of travel services" started declining in February. This is likely related to smaller expenditures of Ukrainian refugees with the use of Ukrainian banking cards. This trend is likely to continue in the rest of 2023, becoming a key driver of narrowing the trade deficit.

We see Ukraine's deficit of goods and services trade will be close to USD 2.4 bln per month, on average, in 2023 (up from USD 2.2 bln in 2022). In 1Q23, the monthly average deficit was USD 3.1 bln (down from USD 3.3 bln in 4Q22).

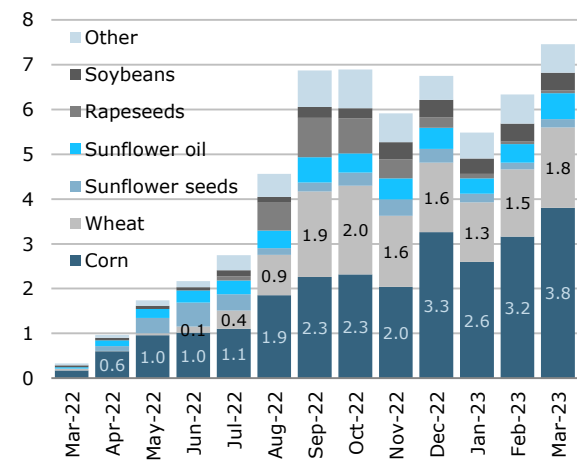
External trade of goods and services, USD bln



Crops and oils export, mmt: By routes:



By goods:



Balance of payments: International support offsets trade outflows

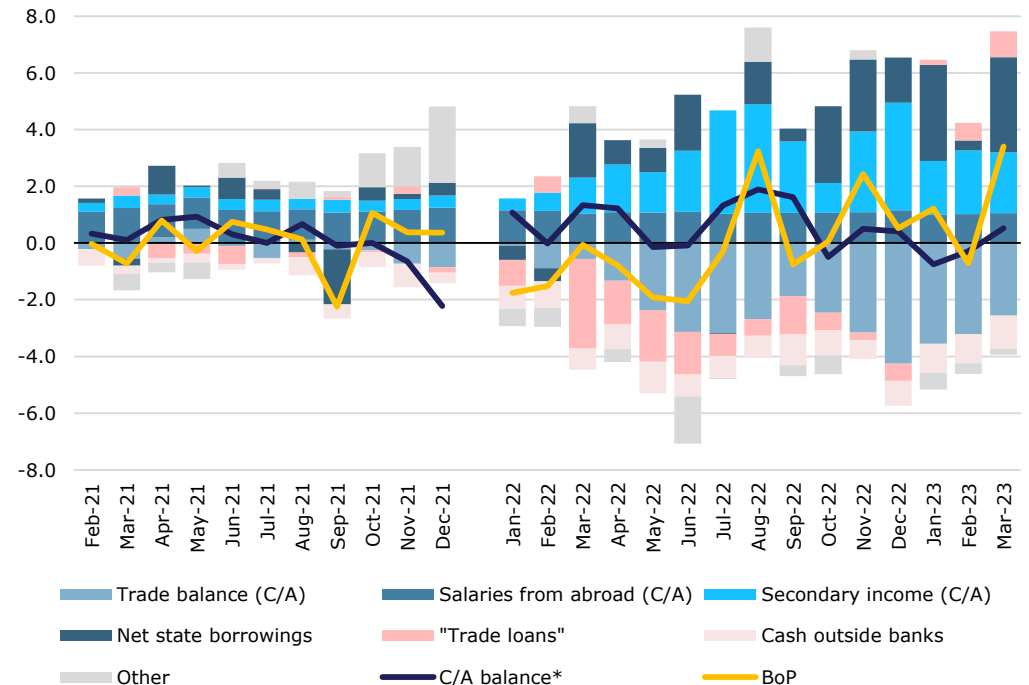
The worsening trade balance in December-January put some pressure on the current account (C/A), though stable salaries from abroad and international grants (most of secondary incomes) allowed the account to remain relatively balanced. In March-April, improvement of trade balance amid continued Western support brings C/A to positive side.

In financial accounts, the large inflow of Western loans (the only exception was February 2023) was bigger than outflows through traditional routes (cash outside banks).

Also, foreign currency outflow through “trade loans”, which pressured the balance of payments all the year 2022, has turned into cash inflows in 1Q23.

In the next couple of months, Ukraine is likely to show a strong increase in the balance of payments as stable international financial support will exceed trade deficit. In 2H23, the deficit of goods trade will likely worsen, while expected decline of “travel services” will limit expansion of goods service deficit making the C/A and BoP relatively stable.

Balance of payments, USD bln



Hryvnia: Market dollar rate converges to official one

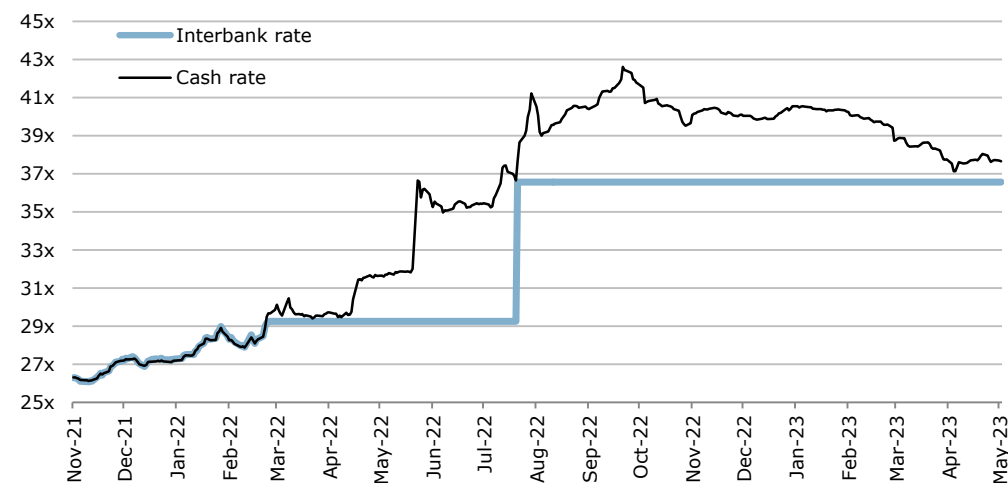
With the National Bank's adjustment of official UAH/USD rate in July 2022, it was able to keep the rate unchanged and build up gross international reserves as hard currency inflow to Ukraine from Western donors offsets the regulator's ForEx intervention needs.

The biggest increase of international reserves happened in March and April as donor's financing was at record-high levels and NBU's ForEx interventions decreased. Later in 2023, worsening of trade balance will require more dollars to support the fixed rate, while foreign financial support will subside, so gross reserves will stop growing. If there are no foreign trade shocks in place, the NBU will be able to keep the official exchange rate unchanged by end-2023.

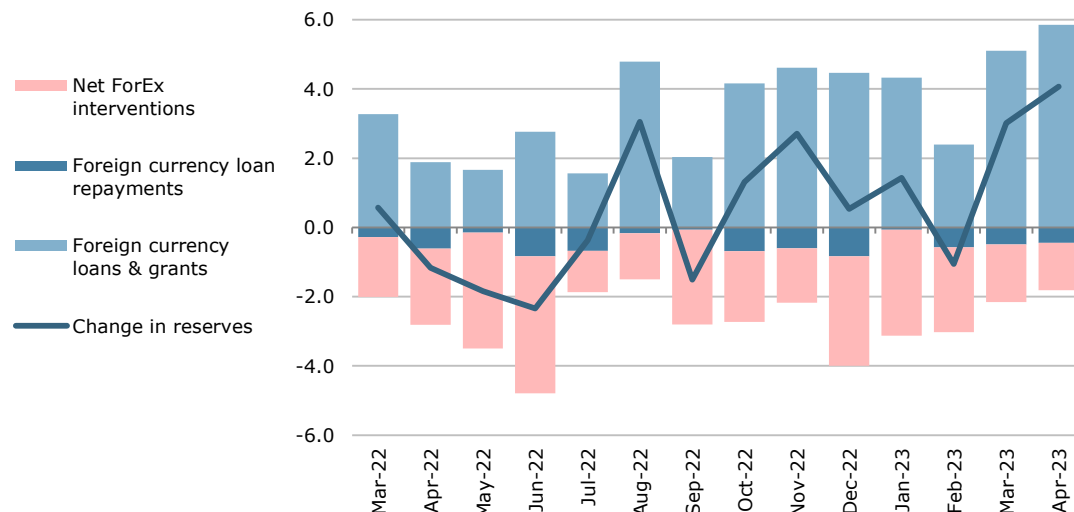
The unofficial market rate of the dollar, after volatility in 2H22, has recently converged to the official one, indicating that NBU's measures to control the currency rate proved their efficiency. One of the measures to control the exchange rate were tough limits on foreign currency withdrawal from Ukraine (including limitations on foreign debt servicing and repayments).

If the unofficial exchange rate remains close to the official one in the nearest couple of months, the NBU is likely to gradually ease the restricting measures on the ForEx market. Meanwhile, Ukraine is unlikely to return of a fully liberal exchange policy before the security situation in Ukraine radically improves.

UAH/USD rate



Key factors of NBU reserves change, USD bln



Ukraine macro indicators

USD bln, unless other indicated

	2020	2021	2022	2023E
Nominal GDP	155.8	200.6	159.1	173.2
Real GDP chg	-3.8%	+3.4%	-29.1%	+0.5%
State & guaranteed debt, eoy	90.3	98.0	111.4	141.1
% of GDP	58%	49%	70%	81%
CPI, eoy	5.0%	10.0%	26.6%	14.0%
UAH/USD rate, avg	27.0x	27.3x	32.34x	36.6x
Goods & services trade balance	-2.4	-2.7	-25.9	-29.3
C/A balance	5.3	-3.9	8.0	-2.8
BoP	2.0	0.5	-2.9	5.5
Budget expenditures	47.8	54.6	81.6	80.4
% of GDP	31%	27%	51%	46%
Defense/security expenditures	10.3	11.1	47.8	46.1
% of GDP	7%	6%	30%	27%
Budget deficit, ex grants	7.9	7.1	42.2	42.4
% of GDP	5%	4%	27%	24%
Budget deficit, with grants	7.9	7.1	27.7	28.3
% of GDP	5%	4%	17%	16%
Debt financing of budget, net	6.7	6.5	25.9	28.7
- External	5.1	4.1	17.1	28.7
- Domestic	1.6	2.4	8.9	0.0
Total defense expenditures	10.7	11.7	88.5	105.2
% of GDP	7%	6%	56%	61%
Total foreign support of Ukraine	5.5	4.7	71.0	101.9
% of GDP	4%	2%	45%	59%
- Military support	0.4	0.7	39.4	59.1
- Financial grants	0.0	0.0	14.5	14.1
- Net loans	5.1	4.1	17.1	28.7
Gross foreign loans	5.3	7.6	18.5	30.9

Eurobond Issuers Update

New IMF program foresees sovereign Eurobond restructuring in 2024

The IMF insists that Ukraine restructures its commercial and official debt so that it won't make any principal payments by the end of the on-going EFF program (terminating in 1Q27). The negotiations are pre-announced for 1H24. For sure, they will assume further rescheduling of Eurobonds' maturity for at least three years.

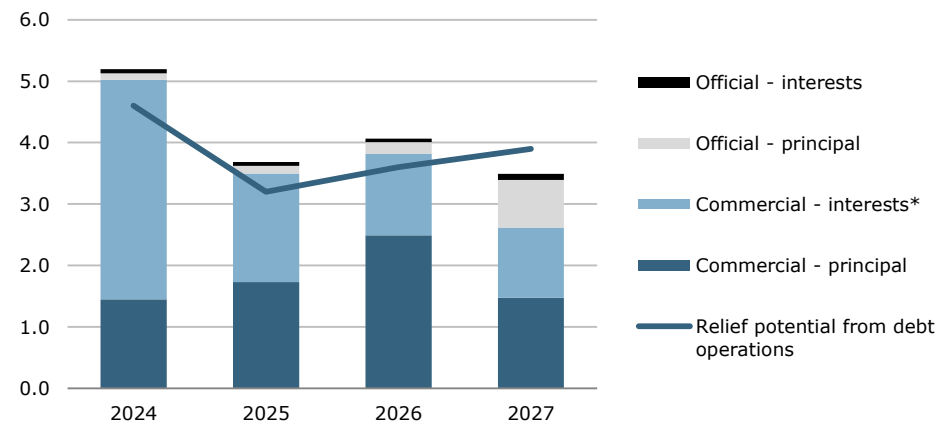
In its recent memorandum, the IMF mentions a USD 15.3 bln of potential decline in Ukraine's state outflows in 2024-2027 related to a debt operation. Comparing annual expected flow from debt relief (see the chart) with MinFin's scheduled debt repayments, we see that IMF's appetite is to insist that Ukraine won't pay neither coupons nor principal to Eurobond holders during the EFF program.

The IMF memorandum does not provide any hint whether it will also demand haircut and amendment of coupons on Eurobonds, but its multiple mentioning of "debt sustainability" concerns implies such restructuring conditions are likely.

That said, Ukraine will have no choice but to start tough negotiations with Eurobond holders in early 2024. From this standpoint, **Ukraine's sovereign bonds look inferior compared to most corporate bonds.**

Bonds of other state companies, including state-guaranteed bonds of **UkrEnergo** and **UkrAvtoDor**, as well as bonds of **Naftogaz** and **Ukrainian Railways**, are also likely to be in the perimeter of debt restructuring.

External debt obligations of MinFin (excluding IFIs) , USD bln



Issuers scoring: Willingness and ability to service debt are equally important

The pre-announced 2024 restructuring of state debt means all the sovereign and most quasi-sovereign Eurobond issuers fall out of our picking for about a year. Meanwhile, all the private Eurobond issuers keep servicing their bonds even despite the barriers built by the National Bank. That makes all the private bonds potentially more attractive than state-related. Key question is whether they will be *willing* and *able* to smoothly service their bonds. We offer the issuers' ranking based on these two criteria.

The upcoming sovereign restructuring will likely close the opportunity for all Ukrainian companies to attract any sizeable international debt in 2023-2024. That means those corporate issuers who want to avoid bond restructuring should have an ability to live without third party refinancing by at least mid-2025.

Taking into account that logics, we upgrade our approach to rank corporate Eurobond issuers by considering the two major factors:

- Apparent willingness to service/repay their bonds in at least the next two years.
 - We see enough reasons for that in Oschadbank (OSCHAD) and Ukreximbank (EXIMUK) who are paying on their bonds much higher interest than they pay for other dollar-denominated liabilities (deposits). The banks pay their coupons and bond's amortizations on time.
 - We also see the apparent commitment of all Akhmetov-related companies (DTEKOG, DTEKUA, DTEREN, METINV) to continue smoothly servicing their bonds. The recent attempts to partially buyback bonds made by most of the issuers is a good illustration of such commitment.
 - We also see good reasons for smooth bond servicing by Vodafone-Ukraine (VODUKR) as access to external debt financing is vital for the company's owners, and for Interpipe (INTHOL) as the company's owner is rumored to have a large exposure to its bonds.
- Ability to independently service bonds and other debt from its own cash flow for at least the next two years (2023-2025)
- Other factors that might justify their bond restructuring:
 - Sizeable assets under risk (located on the currently occupied territory, or close to the frontline).
 - Change of revenue and EBITDA since the war start (compared to adequate pre-war period);
 - Current financial leverage (net debt to LTM EBITDA) and its comparison to average maturity of debt;
 - Time before the nearest sizeable debt (Eurobond or other debt comparable with annual EBITDA) matures.

Relative scoring of Eurobond issuers

	Reasons to service bonds	Ability to service 2023-2025 debt	Assets under risk*	Revenue change since invasion**	EBITDA change since invasion**	Fin. leverage	Debt duration	Nearest sizeable debt matures	Total score
Ukraine	No	n/m	15%	-21%	n/m	n/m	n/m	n/m	n/m
Ukravtodor	No	n/m	15%	n/m	n/m	n/m	n/m	n/m	n/m
Ukrenergo	No	n/m	15%	n/m	n/m	n/m	n/m	n/m	n/m
Oschadbank	Clear	Fair	12%	n/m	n/m	n/m	n/m	n/m	+3
Ukreximbank	Clear	Fair	14%	n/m	n/m	n/m	n/m	n/m	+3
Naftogaz	No	n/m	3%	n/m	n/m	n/m	n/m	n/m	n/m
Ukr. Railways	No	n/m	20%	n/m	n/m	n/m	n/m	n/m	n/m
DTEK Oil&Gas	Clear	High	0%	>>0%	>>0%	<1.0x	3.0Y	44M	+6
Interpipe	Clear	Fair	13%	-20%	-10%	1.5x	3.5Y	36M	+4
VF Ukraine	Clear	Fair	12%	-30%	-25%	1.3x	1.8Y	21M	+4
DTEK Energy	Clear	High	100%	>0%	>0%	2.4x	4.5Y	56M	+2
Metinvest	Clear	Fair	48%	-45%	-80%	2.7x	4.1Y	25M	0
Kernel	Unclear	Fair	2%	-40%	-20%	1.5x	2.6Y	<8M	0
MHP	Unclear	Uncertain	2%	>0%	>0%	3.5x	3.4Y	12M	-1
DTEK Renewables	Clear	Low	83%	-57%	-65%	3.5x	1.6Y	18M	-2

Corporate bond picking

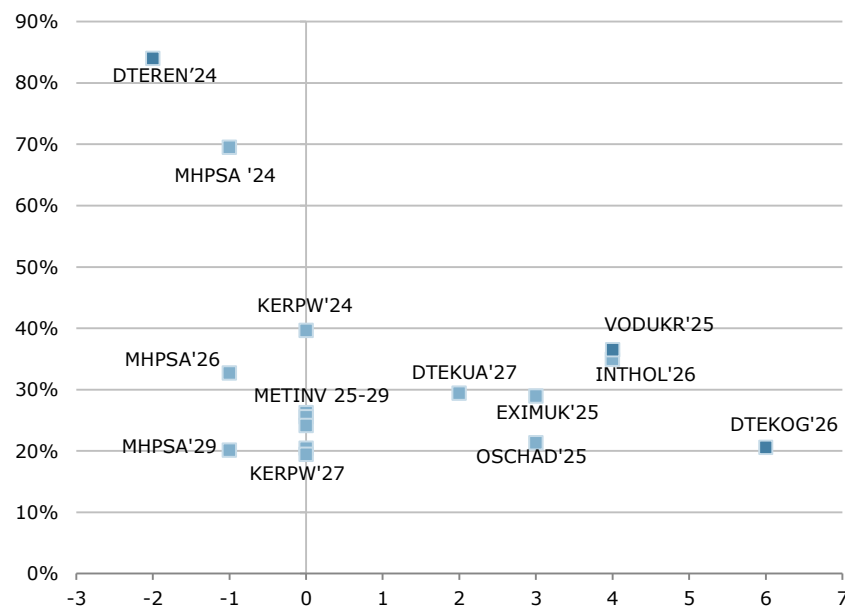
To select our top picks, we are mapping bond yields against fundamental scores of their issuers, as derived on the previous slide. We avoid picking bonds of state-controlled and state-guaranteed issuers which are almost certain to initiate new restructuring negotiations in 2024. The only exception is state banks, which have a clear motivation to repay their bonds on schedule.

Based on our analysis, we offer two strategies for those ready to invest in Ukraine-related bonds:

For those (if any) who are not ready to tolerate too high risk, we offer bonds of fundamentally strong issuers: DTEK Oil & Gas (**DTEKOG'26**), VF-Ukraine (**VODUKR'25**), Interpipe (**INTHOL'26**) and state banks (**EXIMUK'25**, **OSCHAD'25**).

For those ready to maximize their returns, we suggest to look at the bonds that offer the best combination of yields and risks: DTEK Oil & Gas (**DTEKOG'26**), VF-Ukraine (**VODUKR'25**) and DTEK Renewables (**DTEREN'24/DTEKUA'24**)

Fundamental scores and bond yields (offer, May 08)



Interpipe (INTHOL): Cash rich, cash generating

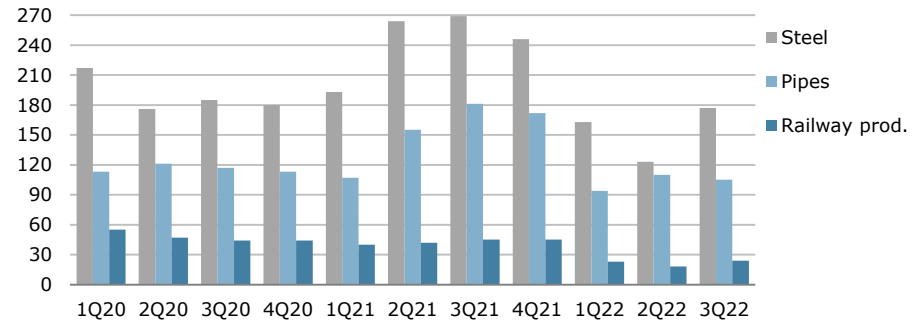
Despite its challenges related to security risks, Interpipe managed to increase its pipe output and EBITDA compared to the pre-boom levels of 2021 in 3Q22. As a result, its 9M22 EBITDA was only 18% less yoy (USD 123 mln). Its cash balance increased 15% YTD as of end-September 2022 to USD 127 mln, which is enough to cover all interests and matured debt in the next three years.

Most likely, the company will report weaker 4Q22 results due to power shortages in Ukraine, but will likely recover its production this year to the levels seen in 2Q-3Q of 2022.

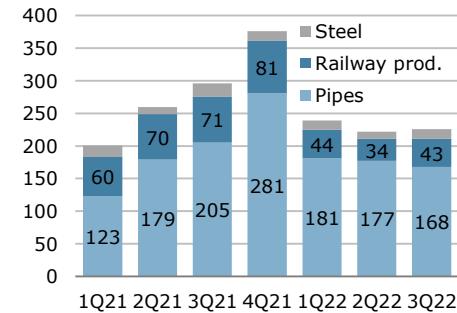
Any increase in pipe output beyond the 2Q-3Q level is unlikely due to limited ability to recover its production at the facility in Nikopol, the town that is being actively shelled by Russian artillery.

With limited CapEx, the company remains capable of generating about USD 100 mln of free cash flow annually, we conclude. This ability, as well as its over USD 100 mln cash balance suggests Interpipe is able to accumulate enough cash to repay its 2026 Eurobond (USD 300 mln) without refinancing.

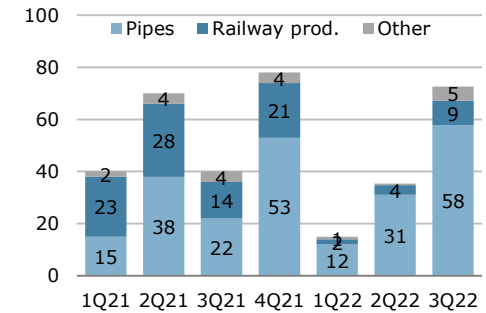
Production data, kt



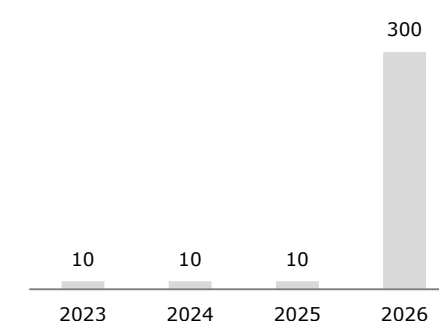
Revenue structure, USD mln



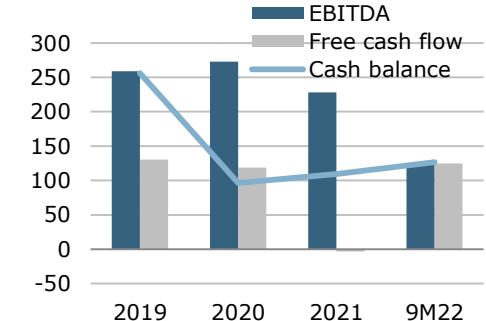
EBITDA structure, USD mln



Debt maturity, USD mln



Cash and cash flows, USD mln



Kernel (KERPW): Liquidity issue remains

Operations are gradually improving

Kernel demonstrated a visible recovery in all its operations in 1Q and 2Q of financial year 2023, after disastrous results of 4Q22. However, the results of the second quarter (usually the most fruitful one) were still much weaker than in the previous years.

Unable to repay working capital financing

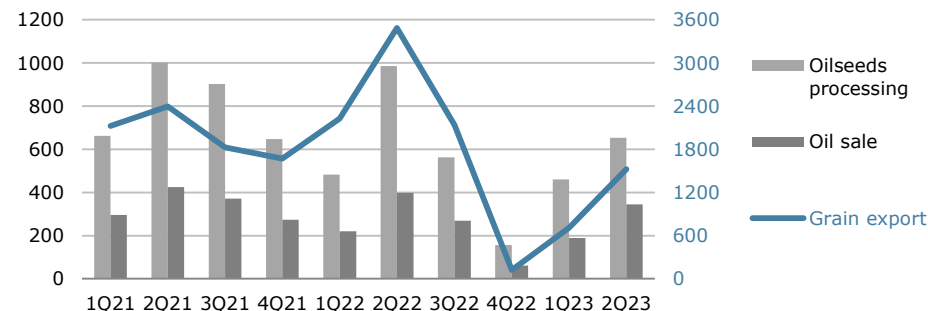
Due to an adverse situation with soft commodities sale in summer, Kernel was not able to repay on time its short-term loans that it has taken to finance working capital. Maturity of over USD 700 mln in short-term debts is being postponed each quarter. Recognizing its liquidity risk, Kernel has re-classified all its long-term borrowings as short-term liabilities as of end-June 2022.

Kernel's capacity to resolve the issue of short-term debt this year will affect its ability to timely repay its Eurobond in late 2024. Such capacity does not look certain:

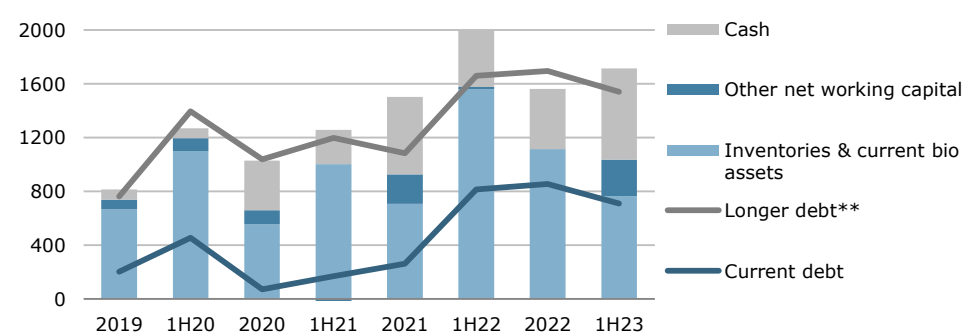
- Key source of repayment of short-term debt is the release of working capital. However, as of end-December 2022, the company's working capital is comparable or smaller than at the end previous calendar years, suggesting there is no large potential for working capital release.
- Other important source of cash will be proceeds from sale of 134 ths ha land bank to Kernel's founder. However, it seems that most of such proceeds will be used to finance development of a newly acquired port terminal in Reni, Odesa region.

While we do not rule out that Kernel will be able to avoid restructuring of its nearest Eurobond, we need to see more improvement in its operational and debt indicators to conclude that the restructuring risk is low enough for KERPW bonds.

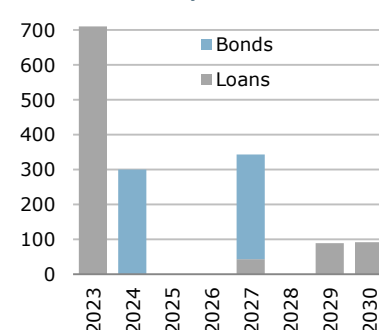
Operating data, kt*



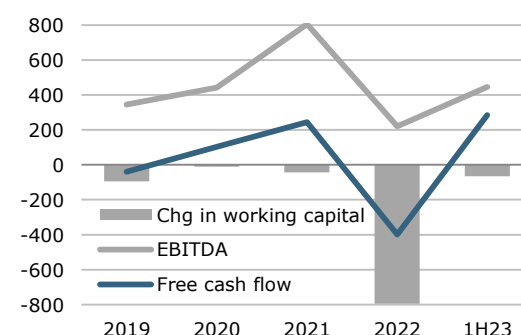
Debt and working capital, eop*, USD mln



Ultimate maturity of debt, USD mln



Cash flow items, USD mln*



MHP (MHPSA): Deleverage is unlikely in mid-term

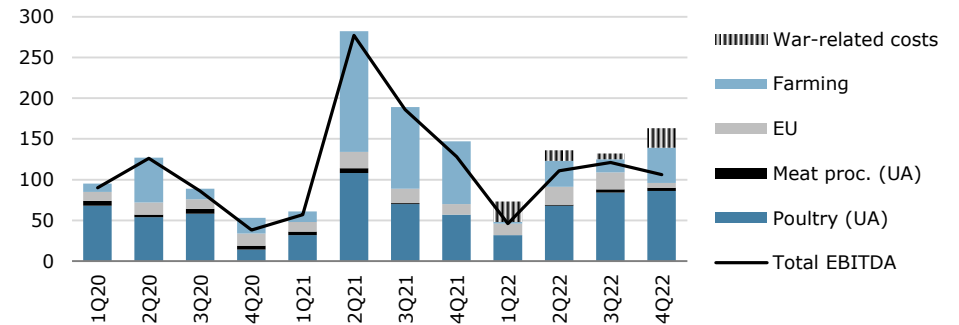
Despite war-related challenges, MHP had a good year in 2022, with its total EBITDA being comparable to or higher than in 2017-2020. This prompts the year 2023 will not be worse for the company, unless new geopolitical or trade shocks occur.

Even though MHP looks better than its peer Kernel in terms of liquidity and profitability, we see the probability for MHP to ask for restructuring the nearest Eurobond is even higher:

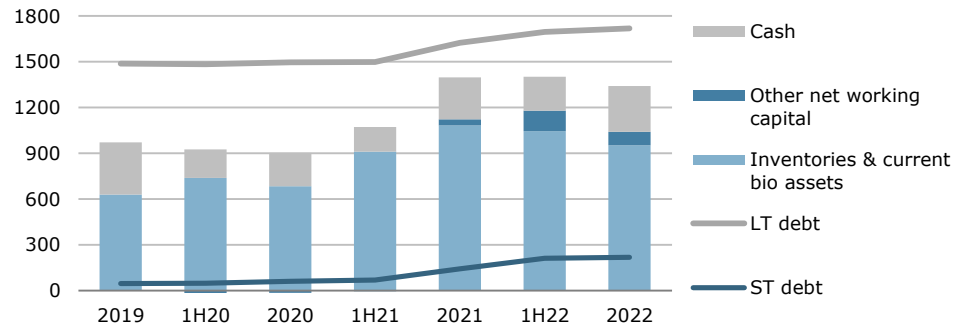
- The company is accustomed to refinance its Eurobonds with new issues, and it is unlikely to be able to do so by the maturity of its nearest USD 500 mln bond in May 2024.
- In its history, MHP did not undergo significant deleveraging, and there are few reasons for it to do so this time.
- MHP never generated free cash flow of over USD 200 mln, and the year 2023 is unlikely to be the exception. Even though MHP invested a lot in its working capital in 2021-2022, it has limited ability for working capital release. Namely, a key reason for its increased working capital is higher input costs of farming business.
- That said, MHP is unlikely to accumulate enough cash from its operations to repay its nearest bond.
- Having a status of the only Ukrainian company that avoided bond restructuring in 2015-2016, MHP lost such status in 2022 when it approached bondholders asking to postpone spring coupon payments for nine months.

A signal that MHP is not going to restructure its nearest bond could be a company's offer to partially buy back it in 2023.

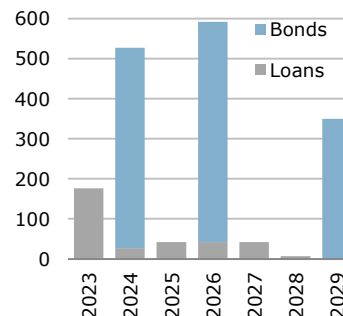
EBITDA structure, USD mln



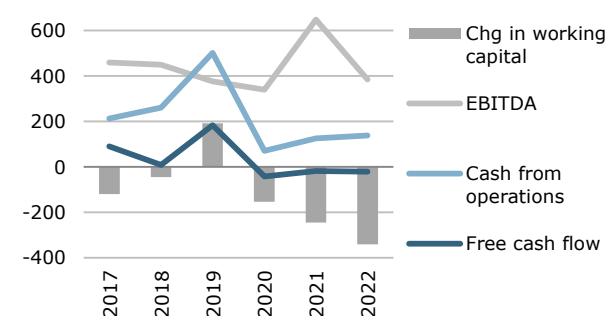
Debt and working capital, eop, USD mln



Debt maturity, USD mln



Cash flow items, USD mln



VF Ukraine (VODUKR): Fundamentals remain strong

The company's 4Q22 results remain strong:

- While its mobile customer base decreased 2% qoq and 19% yoy, its revenue (in local currency) declined just 4% yoy as the company managed to significantly improve its mobile ARPU: +17% yoy.
- Its EBITDA (in local currency) increased 7% yoy and qoq and EBITDA margin reached 57% (up 6pp yoy).

In 2022, the company reported a 17% yoy decline in revenue and a 13% yoy decrease in EBITDA, in USD terms (in local currency terms, the results were broadly flat yoy).

With such results, VF Ukraine remains among fundamentally strongest Ukrainian Eurobond issuers.

Able to repay its Eurobond from own cash flow

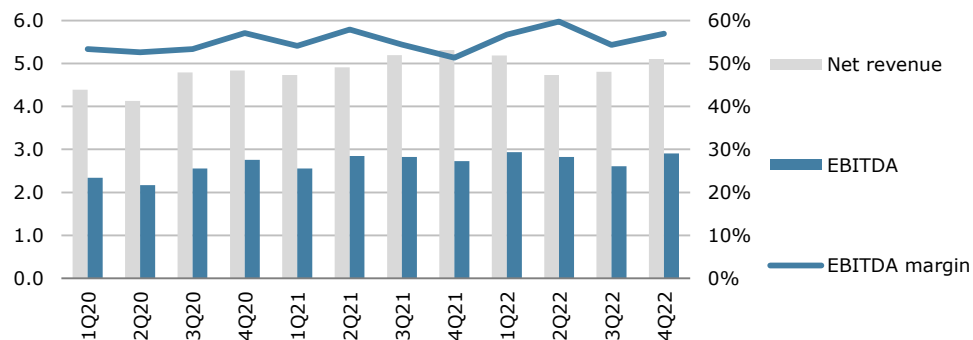
USD 400 mln of the remaining par value of Eurobond (maturing in February 2025) is the only company's debt obligation. The company looks physically able to repay it on maturity, from:

- USD 183 mln of accumulated cash and ST investments (deposits and government local Eurobonds). About 2/3 of its liquid assets are in hard currency (USD and EUR).
- About USD 240-340 mln of free cash flow which it is able to generate over 2023-2024. In particular, we see the company is able to generate annually about USD 240-280 mln of cash from operations, and about USD 120-160 of free cash flow.

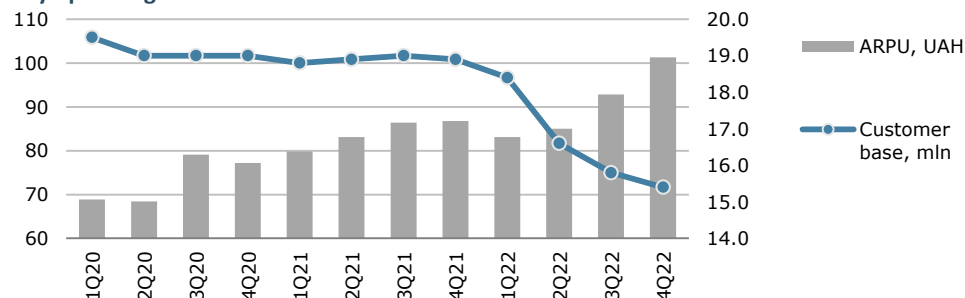
As we stated earlier, we see a high motivation of the company's owner (Azerbaijan-based holding) to remain in good relationships with international creditors.

Key risk for the company's ability to accumulate enough funds for smooth bond repayment is devaluation of Ukrainian currency (as most of VF Ukraine cash flow is generated in hryvnia). We see the devaluation risk as minimal for 2023.

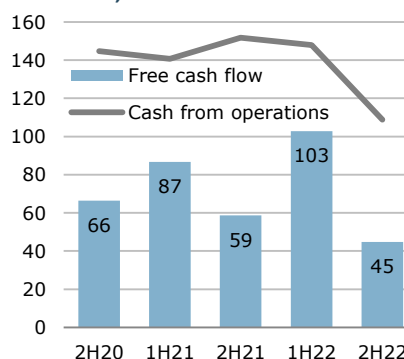
Selected financials, UAH bln



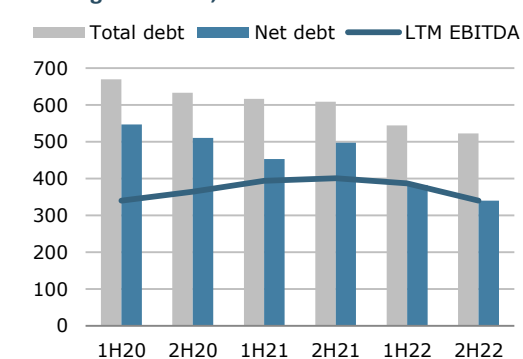
Key operating metrics



Cash flow, USD mln



Leverage metrics*, USD mln



Akhmetov-related companies: Purchasing their bonds

Following a successful partial buyback of DTEK Energy bonds in November 2022, other companies controlled by Rinat Akhmetov initiated their buybacks in late 2022 and early 2023. They spent total USD 170 mln for partial bond repurchases to date, decreasing the amount of bonds outstanding (freely floated) by over USD 500 mln.

On April 21, Metinvest reported it repaid on maturity its bond (USD 145 mln par).

The purchases and smooth repayments confirm our view of a high determination of Akhmetov-related companies to continue servicing their Eurobonds despite significant troubles related to some companies' operations.

Results of SCM-related buybacks

	Amt. outstanding	Spent for buyback	Buyback price, % of par
DTEK Energy (DTEKUA), USD mln			
Pre-offer	1671.2		
Buyback 1 (Mandatory, Oct-Nov 2022)	-154.3	-32.5	21.1%
Buyback 2 (Nov-Dec 2022)	-80.0	-19.8	24.7%
Unidentified reduction	-10.0		
Buyback 3 (Mar 2023)	-193.5	-80.0	41.3%
Now	1233.3*		
DTEK Renewables (DTEREN), EUR mln			
Pre-offer	325.0		
Buyback 1 (Nov-Dec 2022)	-8.6	-2.6	30.0%
Buyback 2 (Jan-Feb 2023)	-35.5	-15.0	42.2%
Now	280.9**		
Metinvest (METINV 23), USD mln			
Pre-offer	168.6		
Buyback 1 (Nov-Dec 2022)	-23.6	-18.9	79.8%
Post-offer	145.0		
Total buybacks, USD mln	-508.0	-169.6	33.4%

DTEK Oil & Gas (DTEKOG): Cash cow for entire group

As we expected, DTEK Oil & Gas had the best year in its history in 2022. The company has not provided consolidated reports since the war started. However, from statistical reporting we see that its main operating subsidiary, JSC Naftogazvydobuvannia (NGV), generated USD 803 mln of EBITDA and USD 584 mln of net profit in 2022. With such results, NGV was among Ukraine's most profitable companies last year.

The company's operating profit is likely backed by comparable operating cash flow. Therefore, DTEK Oil & Gas is able to repay its USD 425 mln Eurobond by only using part of the previous year's cash flow. However, historically, Akhmetov's oil & gas assets served as a cash cow for its other businesses, and this time such treatment is justified more than ever. Most likely, the group uses cash generated by NGV for the purchase of Eurobonds of DTEK Energy and DTEK Renewables.

All in all, DTEK Oil & Gas is fundamentally the strongest Ukrainian Eurobond issuer, so we believe its bonds are the most safe investment in Ukraine's fixed income universe.

P&L of Naftogazvydobuvannia, USD mln

	2021	2022
Net revenue	578	1113
EBITDA	333	803
Net income	275	584

DTEK Energy (DTEKUA): Operations remain strong despite constant damage risks

While the company does not report any consistent operating metrics and often (and reasonably) complains about damages due to Russian terrorist attacks on its assets, the situation is not that bad for DTEK Energy:

Most assets seem to remain in workable conditions:

- On March 22, it announced its plans to repair its power generating equipment. In 2023, it is planning to repair 28 power units (vs. 26 repaired last year). In 2021, DTEK Energy had 35 operational power units at its six TPPs that are currently located on government-controlled territory of Ukraine (as well as 6 units conserved). The intention to repair 28 of them (or 80% of total) suggests the company sees a high chance for them being ready for power generation this season. And this is despite over 30 strikes of DTEK's power plants reported to date.
- In 2022, the company commissioned 28 new longwalls at its mining assets, which is comparable to the results of 2021 (31 units). In 1Q23, six new longwalls were commissioned. Such results imply DTEK is trying to support coal mining capacity at the pre-war level.

Asset damage risk remains high

As Ukrainian largest power generating units are among the primary targets of Russian terrorist strikes, most of the assets of DTEK Energy remain risky. At least, the company has to spend a lot repairing its equipment after missile strikes and improving the assets' protection against new hits. Such investments might undermine its ability to service some obligations.

Power prices nearly compensate output decline in 2022

In 11M22, Ukrainian thermal power plants (TPPs), including those operated by DTEK Energy, decreased their capacity load by about 25% yoy. Meanwhile, the benchmark price of electricity (day-ahead market price for baseload power) increased 28% yoy in USD terms (and 52% yoy in local currency terms) for the same period. That means TPPs experienced about 4-7% yoy decrease in the value of power sold in 2022, in USD terms.

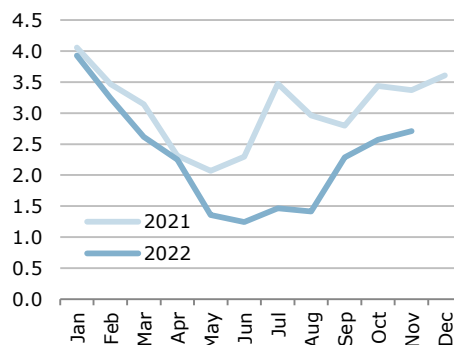
EBITDA hits 3Y record high

The recently reported DTEK Energy's consolidated financials for 2022 are surprisingly good, with EBITDA (estimated USD 574 mln) and operating cash flow (USD 775 mln before changes in working capital) being better than in the previous two years. The result seems to be driven by the company's coal division, Pavlohradvuhillia, which reported a record-high USD 525 mln of EBITDA.

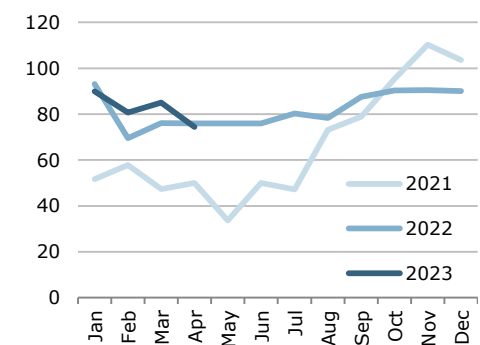
Enough time to repay, buyback or refinance its debt

The company's only sizeable debt is USD 1.5 bln Eurobond which matures in almost five years. Although DTEK Energy is unlikely to be able to repay the debt from its own cash flow, it still has a good chance to refinance it closer to maturity, as well as has an opportunity and enough time to significantly decrease its par amount via partial buybacks over the next four years. For instance, in 4Q22-1Q23, the company and its related parties managed to buy back 26% of the company's bond outstanding.

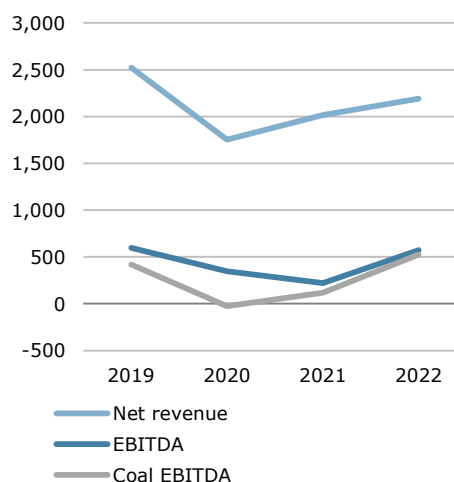
Capacity load by Ukraine TPPs, GW



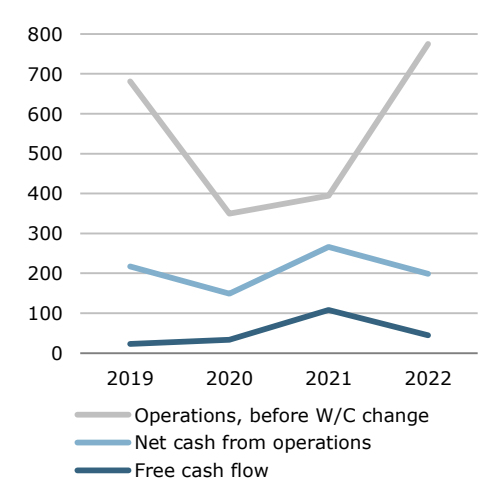
Ukraine day-ahead power price, USD/MWh



DTEK Energy P&L items, USD mln



DTEK Energy cash flow items, USD mln



DTEK Renewables (DTEREN): Strong commitment to service bond is key

Despite facing a perfect storm in 2022, DTEK Renewables continued servicing its bonds, and even continued its capacity expansion program to construct a new wind station in Mykolayiv region. In March 2023, the company commissioned 114 MW of Tyligul Wind Station (up from 36 MW in June 2022) which increases its potential to generate power by 50% compared to mid-2022.

The company does not report consolidated financial and operating numbers since the war started, but from statistical financial reports we conclude that its power stations generated combined revenue of EUR 97.7 mln in 2022 (down from EUR 239.5 mln in 2021).

The company's only buyer of electricity, state holding GarPok, owes EUR 36.5 mln for electricity purchased in 2022. GarPok's payment discipline improved in late 2022 and early 2023 to over 90%, but worsened again in February.

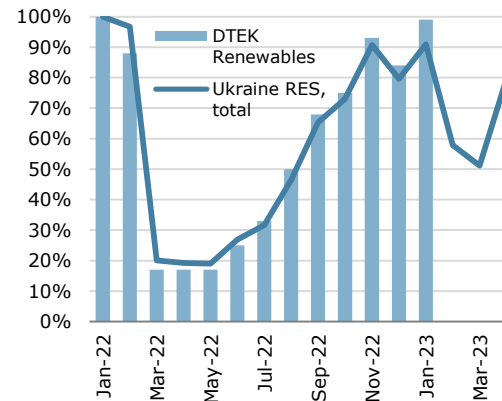
Providing its capacity, selling strategy and market situation won't change, we estimate DTEK Renewables to generate about 800 GWh of power in 2023 worth EUR 84 mln and 880 GWh in 2024 for EUR 90 mln. If GarPok's payment discipline does not improve from the average war-period level of 55%, DTEK Renewables won't be able to generate more than EUR 60-80 mln of operating cash flow before its EUR 280 mln Eurobond matures. That said, all things being equal, the company is in technical default.

However, the company has a potential to improve its fundamentals with: improvement of payment discipline of GarPok and compensation of arrears for power sold and output curtailment services provided (generating additional up to EUR 100 mln by end-2024), de-occupation of its wind power stations (up to EUR 150 mln). Also, Ukrainian parliament has recently initiated legislation amendments to improve flexibility of renewable power producers to sell their power, which could allow the company to improve its cash inflow even in case GerPok's payment discipline remains weak.

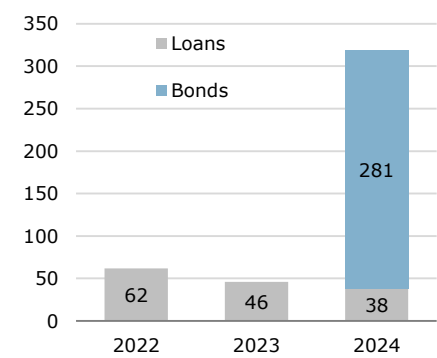
Moreover, we see a high likelihood that the company will continue smoothly servicing its Eurobond even in case the market situation won't improve. Two rounds of bond buyback by a related party suggest the company's owner remains committed to service DTEREN bonds. This looks logical taking into account that:

- all Akhmetov-related companies are doing their best to keep good relationship with Eurobond holders,
- the development of renewable energy projects is a key strategic goal for Akhmetov's energy wing.

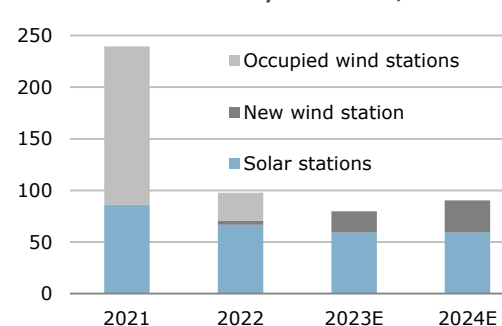
GarPok payment level for green energy



Debt repayment schedule, EUR mln*



Combined revenue of key subsidiaries, EUR mln



Metinvest (METINV): Pure commodity play, turns into coal holding

High coal prices supported EBITDA in 2022

The last year was challenging for Metinvest's metallurgical segment, which lost key assets in Mariupol (steel output decreased 90% yoy in 2H22), suffered from seaport blockade and high input prices. As a result, its coking coal business has become a major income driver, due to exceptionally high coal prices. In particular, its coal output exceeded production of crude steel and even iron ore in 2H22. The coal price premium as compared to 2021 generated additional profit of USD 0.85 bln in 2022, which is 45% of the company's aggregate EBITDA.

That said, the loss of assets was offset by better coal and ore pricing, allowing Metinvest to generate more EBITDA in 2022 than in 2019, when commodity prices were depressed.

Generates enough to service its debt, so far

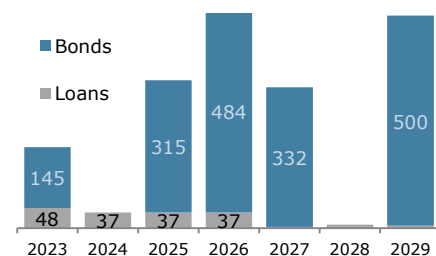
In case coal and iron ore prices will be in line with Bloomberg consensus forecast in 2023, we estimate the company's mining segment will generate USD 0.75-0.85 bln of EBITDA this year. A recovery in steel prices will allow the company's metallurgical segment to generate about USD 0.15-0.25 bln of EBITDA. We, therefore, expect the company will be able to generate USD 0.4-0.5 bln of free cash flow this year, which would be more than enough to cover all its debt servicing and repayment obligations in 2023 (including the recently matured USD 145 mln Eurobond). Also, the company is likely to continue its partial buyback of the nearest Eurobond.

To continue servicing its debt in the next four years, Metinvest should generate annually about USD 0.45 bln in free cash flow:

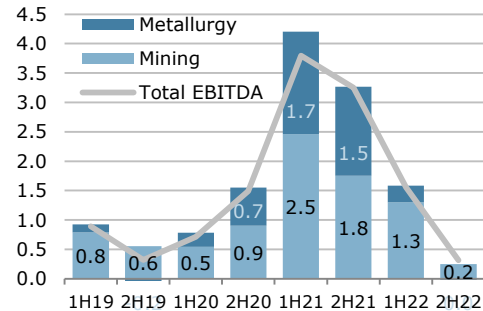
- On the one hand, a decline in coal and/or iron ore prices could significantly limit the company's mining sector profits.
- On the other hand, improvement with logistics is likely in the nearest two years (with Ukraine's likely military success could lead to unblocking of sea ports) that would multiply Metinvest's ability to generate cash ahead of the nearest large debt payments.

To summarize, **Metinvest remains a commodity play**, although now with much smaller room for maneuver due to loss of valuable assets.

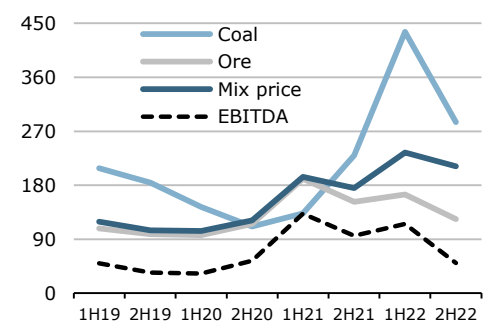
Debt maturity, USD mln



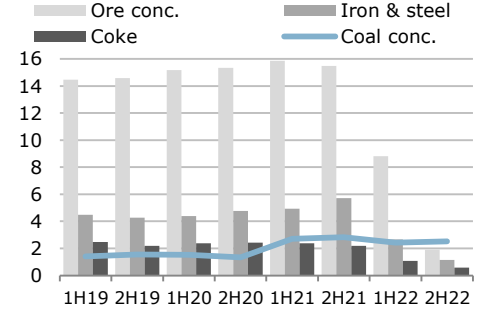
EBITDA breakdown, USD bln



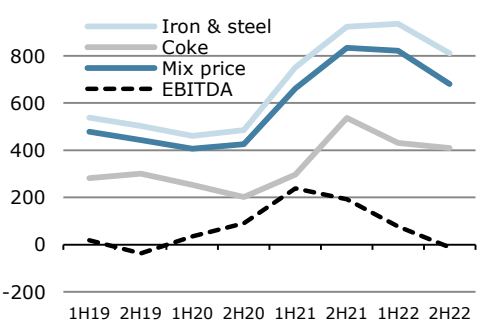
Price & EBITDA, \$/t: Mining segment



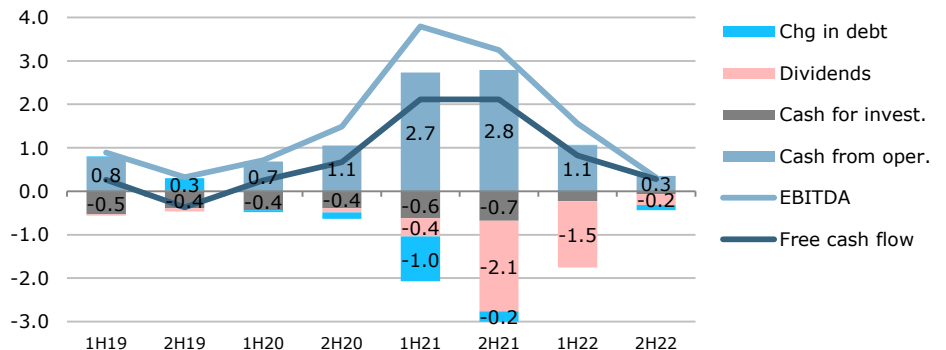
Key outputs, mmt



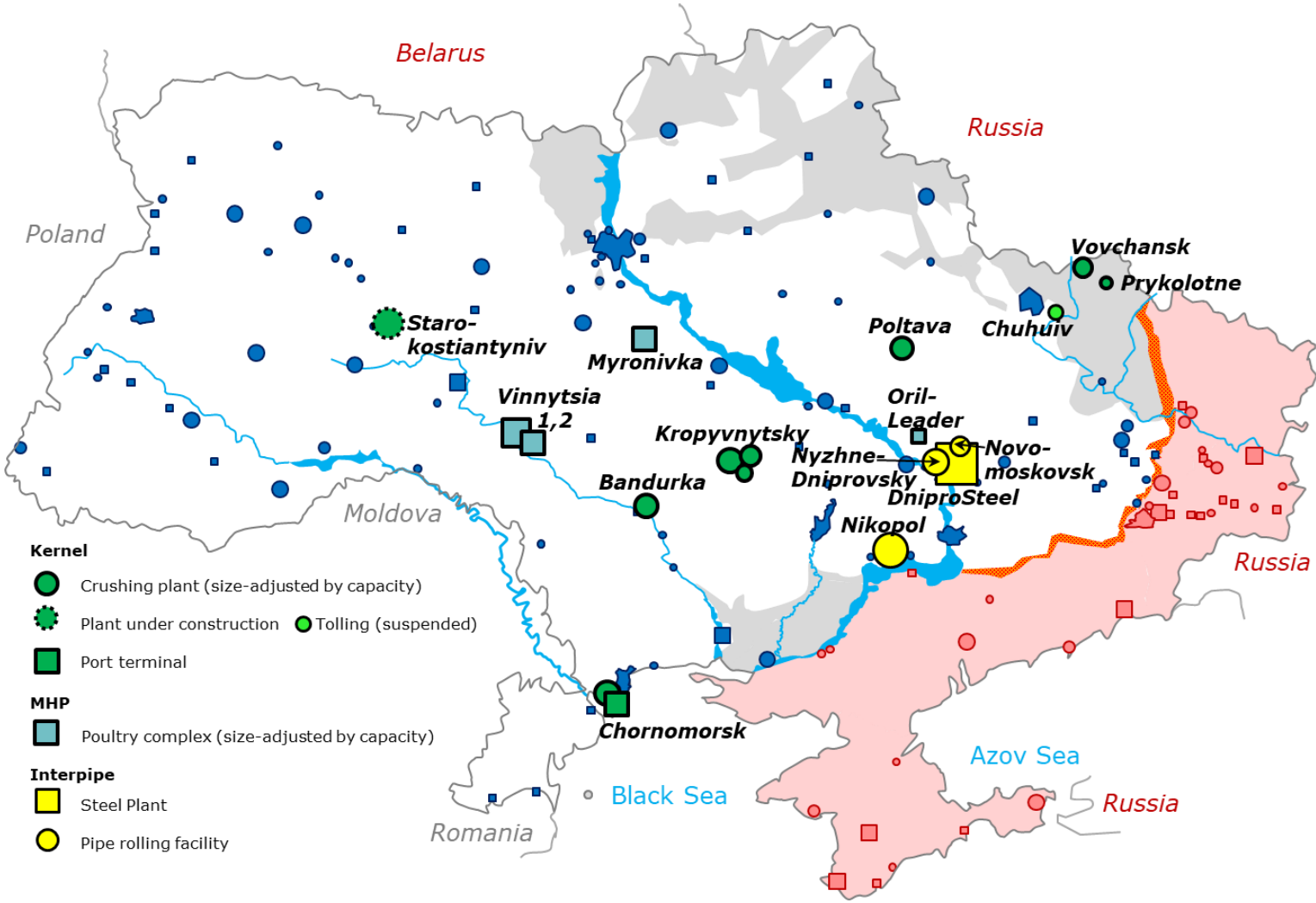
... Metallurgical segment



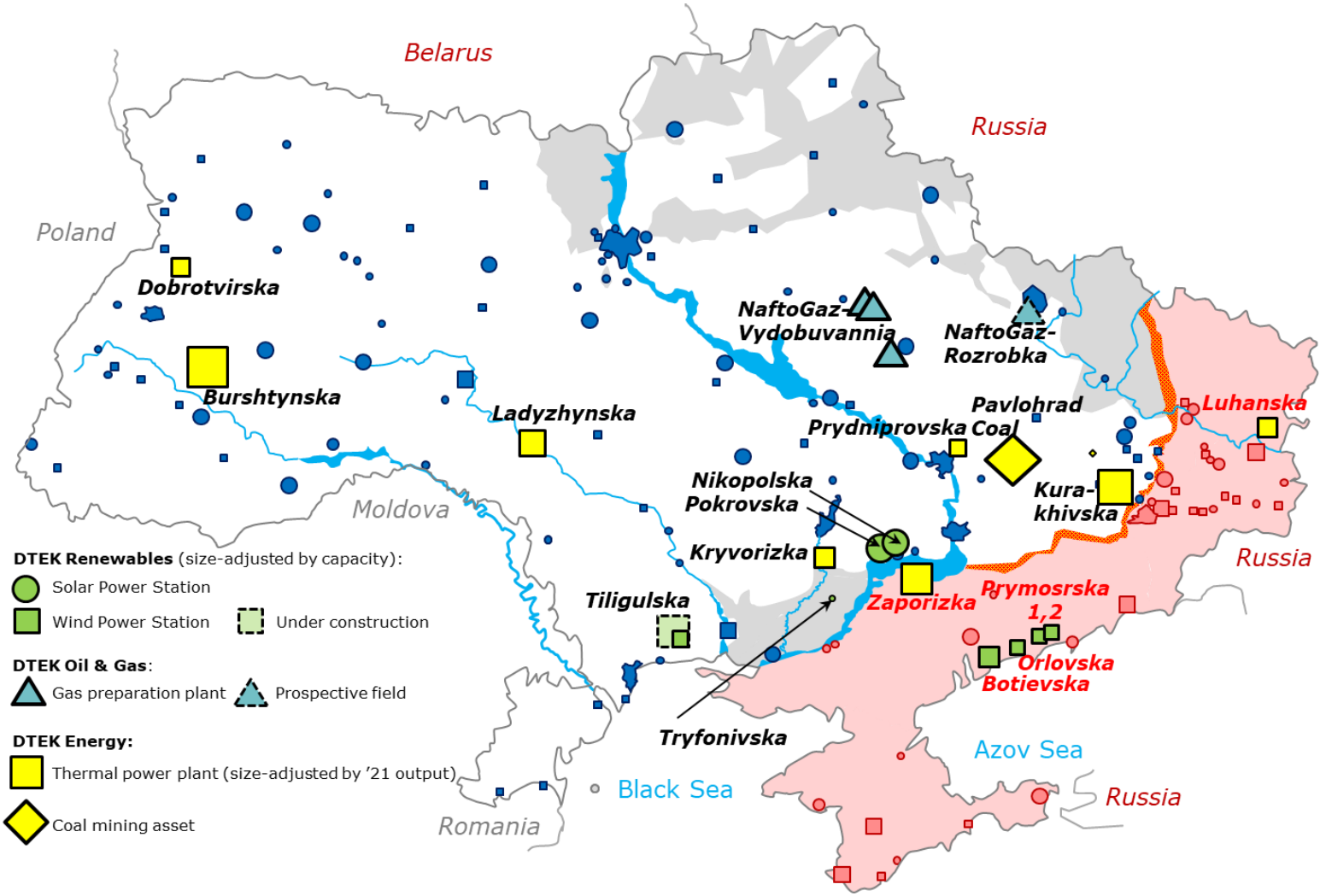
Cash flow items, USD bln



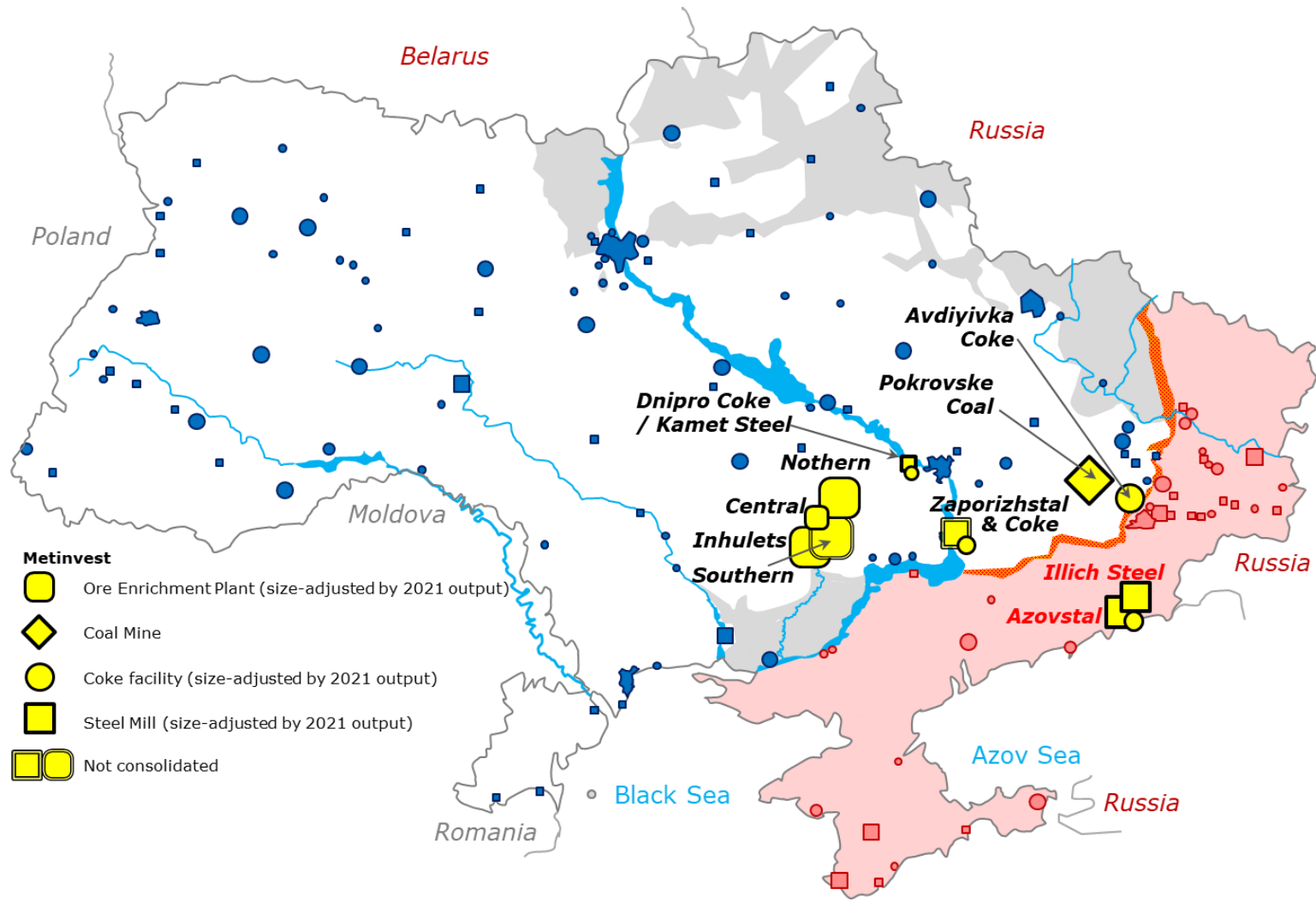
Key assets map: Interpipe, Kernel, MHP



Key assets map: DTEK companies



Key assets map: Metinvest



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