

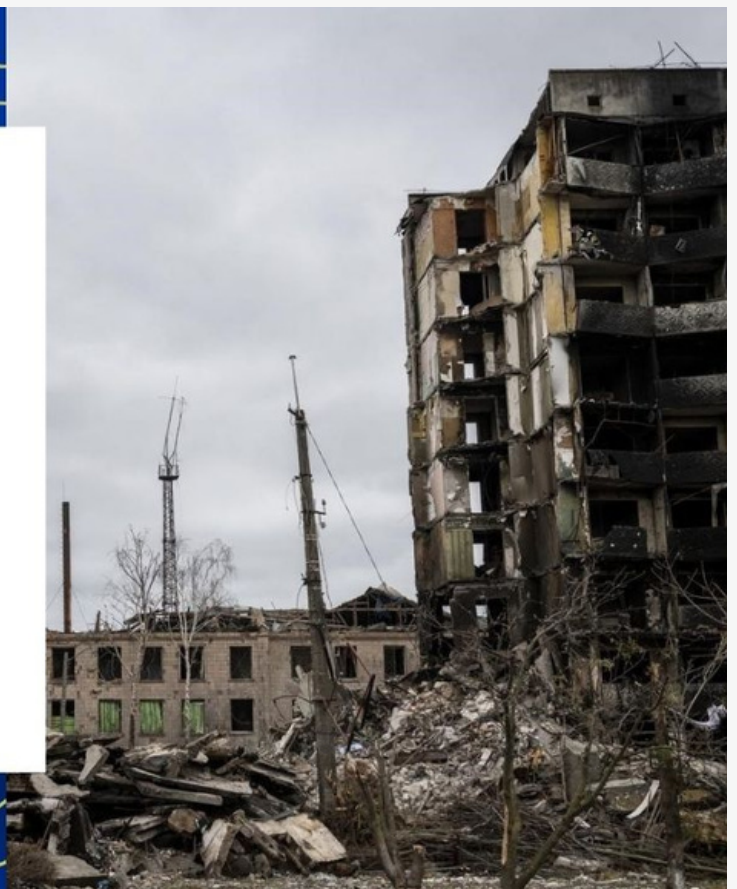
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ATTRITION IN UKRAINE: WHERE KYIV STANDS AFTER ONE YEAR



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Abstract

The Russo-Ukrainian War has devolved into a war of attrition. With materiel in short supply, Ukraine depends heavily on foreign contributions to maintain the war effort. Furthermore, though relatively stable since the start of the invasion, the Ukrainian economy has been severely affected. Loss in revenue from the decrease in production, exports, and taxes is leading to massive deficits for the national government. Post-war reconstruction is also expected to be expensive, requiring significant external assistance. While continuous military and economic support from NATO, the EU, and others is essential to Ukraine, it will be important for countries to increase the necessary defence production to maintain their stockpiles and to plan for continued financial assistance for the duration of the war and following its conclusion.

State of the Conflict

After a year of invasion in Ukraine by the Russian Federation, a resolution does not seem any closer as the second spring nears. It is often difficult to know what is happening on the ground. Estimates on the number of casualties on both sides, both killed and wounded, vary significantly. Although uncertain about his own figures, Gen Eirik Kristoffersen of the Norwegian Armed Forces estimates that Ukraine has suffered 100,000 military casualties with an additional 30,000 civilian casualties, while Russia has had around 180,000 killed or wounded (Cooper et al., 2023; Gregory & Kingsley, 2023; Lundgaard & Persen, 2023; Nagorski et al., 2023).

The conflict appears to have become a war of attrition (Jones et al., 2023; Watling, 2022). Watling (2022) explains that “Attritional warfare develops when neither side is able to achieve a decisive advantage. Unless new capabilities or terrain shift the logic of a fight, attritional warfare ends when one side exhausts its supply of people, materiel or morale” (para. 2). Jones et al. (2023) further explain that the conflict “has become a war of attrition characterized by dug-in forces, trenches, human-wave attacks, artillery barrages, and high casualties on both sides” (p. 2). The recent violence in Bakhmut seems to exemplify this. A former US Marine on the ground there claims that life expectancy on the front line is about four hours, while a Ukrainian commander has claimed “that there are more Russian troops surrounding the city than there is ammunition” (Davies & Reeve, 2023; Panella, 2023, para. 1). The pro-Russian Wagner Group has also complained about ammunition shortcomings (Starkov, 2023). Unfortunately, the overall brutality of the conflict only seems to be increasing.

Ukrainian Capabilities

The International Institute for Strategic Studies (IISS) (2023) reports that Kyiv has 688,000 active troops—of which 50,000 are in the navy and air force—250,000 in gendarmerie and paramilitary, and 400,000 in reserves; furthermore, Ukraine has millions more civilians eligible for service. Meanwhile, the Russian Federation maintains well over 3,000,000 active and reserve personnel, backed by a much larger national population (IISS, 2023). With an abundance of troops in general, supplies will likely continue to be the most significant operational capacity determinant. Ukraine’s biggest hindrance seems to be its shortage of equipment, relying heavily on what other countries provide (Koshiw, 2022).

It is challenging to account for all the equipment Ukrainian forces possess accurately, but estimates do exist. Of course, vehicles, weapons, and ammunition are constantly used, produced, and destroyed, so such quantities are hardly static. Ukraine has around 950 main battle tanks (MBT), notably 500 T-72 variants and five units of the advanced T-84 Oplot (IISS, 2023). Simultaneously, Kyiv boasts 200 reconnaissance vehicles, 770 infantry fighting vehicles, over 1,000 armoured personnel carriers, and dozens of engineering vehicles (IISS, 2023). Amongst the most critical for the conflict, Ukraine has an arsenal of over 1,500 artillery pieces, including at least 500 self-propelled artillery systems (IISS, 2023). The Ukrainian Air Force also has around 80 combat planes, including the MiG-29 and Su-27 fighters, as well as a sizable transportation fleet buttressed by four heavy Il-76s (IISS, 2023).

In addition, both the army and the air force have a variety of surface-to-air missile (SAM) systems, including S-300V, S-300PS/PT, and S-300PMU long-range systems, alongside roughly 60 9K37M Buk-M1 medium-range systems (IISS, 2023). Russia's struggle to break through Ukrainian defences seems to demonstrate that Ukraine has utilised its military capabilities effectively, but it is difficult to ascertain how much of Ukraine's original equipment remains.

The Russian numerical advantage remains a significant challenge for Kyiv, especially when supplies are not abundant. Foreign military aid is, therefore, crucial. Contributions have come from across the globe, particularly from the US, the UK, and the EU (Kiel Institute for the World Economy, 2023). Significant numbers of ammunition, arms, and armoured vehicles will continue to be delivered to Ukraine, including MBTs and SAM systems. For example, the United States has pledged the M1 Abrams and a Patriot battery (Partridge, 2022; Vergun, 2023). A significant obstacle, however, is the training involved in operating such systems, which can take months. Another issue for Kyiv is that American tanks could take over a year to arrive (Judson, 2023b). Kyiv is also seeking to acquire Western aircraft, like the F-16, to counter Russian air capabilities, but this has been met with reluctance thus far (Hunder et al., 2023).

The State of the Economy

Unsurprisingly, the Russian invasion has severely impacted Ukraine's economy. While it is estimated that the Ukrainian GDP fell by around 30% in 2022, it overperformed estimates that expected an economic contraction closer to 50% (Heinonen & Korhonen, 2023; Horowitz, 2023; Turp-Balazs, 2023). Inflation has also risen by about 20%, and the National Bank of Ukraine had to devalue the domestic currency (hryvnia) by 25% against the dollar (IISS, 2023; Zinets & Vasovic, 2022). Reports early in the conflict estimated that the Ukrainian economy lost five million jobs (Williams, 2022). While some sectors like banking and IT have been relatively stable, agriculture was the most impacted by the conflict, as exemplified by the 35% fall in cereal and oilseed harvests compared to 2021 (Heinonen & Korhonen, 2023; Turp-Balazs, 2023). Heinonen and Korhonen (2023) report that "The outlook for the winter harvest is more worrying. The sown area for the winter crop harvest in 2023 is expected to decrease by about 40 %" (p. 42). Overall exports in March 2022 were 41% of those of March 2021, recovering to 69% in September; imports for March and September were 21% and 51% of 2021's values respectively (Heinonen & Korhonen, 2023). The Ukrainian economy has stabilised, though at a fraction of the pre-war economic base (Harmash, 2023).

Despite falling revenues, the central government's expenditure increased throughout most of 2022, with defence spending reaching up to 57% of the total governmental budget (Heinonen & Korhonen, 2023). The situation has made foreign financial aid a crucial source of funding for the Ukrainian government. Heinonen and Korhonen (2023) explain that "The share of support from international partners of the total revenue was 26 % in April, 15 % in May, 35 % in June, 45 % in July, 49 % in August and 33 % in September 2022" (p. 48). Foreign assistance will remain critical as the Ukrainian budget deficit might reach 20% of GDP in 2023 (Repko, 2022)

The internal and external displacement of the Ukrainian people is another development that complicates both humanitarian and economic responses. Millions have had to flee their homes, with

at least nine million people leaving the country and a further 6.5 million internally displaced (International Organization for Migration, 2022; Kumar & Lisnycha, 2022). The loss of workers and taxpayers exacerbates Ukraine's economic contraction. However, Kumar and Lisnycha (2022) mention that about 2.6 million people returned to the country. Humanitarian and economic aid will be indispensable in a post-war Ukraine. The Ukrainian economy and physical infrastructure will need rehabilitation at a high financial cost, especially in the eastern oblasts; it is estimated that total reconstruction will cost hundreds of billions of dollars, especially for residences and infrastructure (Heinonen & Korhonen, 2023; Horowitz, 2023).

What More Can Be Done?

Kyiv certainly needs military aid to continue to be delivered. Matters are, however, complex. NATO stockpiles are depleted, as materiel is delivered faster than it can be replaced, leading the alliance to raise stockpile targets (Siebold & Gray, 2023). US stockpiles, for example, have significantly depleted in some areas, including 155 mm howitzers and 155 mm artillery rounds, Stinger anti-air and Javelin anti-armour systems, and counter-artillery radars (Jones, 2023). To put the demand for ammunition and weapons into perspective, Ukraine reportedly expends an estimated 90,000 artillery rounds per month, equivalent to the entirety of US production in 2021 (Cancian, 2023; Judson, 2023b). Munition production to replace the arms and ammunition destined for the frontline can take considerable time. Advanced systems, such as tanks, planes, and SAM systems, also require time-consuming training. With no easy solution, focusing on production and training with great foresight is fundamental. Unfortunately, the willingness to contribute costly supplies to Ukraine will ultimately vary depending on the particular context and politics of individual countries.

It will be extremely difficult for Ukraine to recover as a nation from the war on its own. The National Council for Recovery estimated the total recovery cost to be \$750 billion, while the entire Ukrainian GDP in 2021, its highest on record, was \$200 billion (Euractive.com with AFP, 2022; Heinonen & Korhonen, 2023; The World Bank Group, n.d.). The EU, the US and others already provide substantial financial aid, but the longer the conflict drags on, the greater the cost of financial and military assistance becomes. The EU is already planning a post-war, long-term support strategy through mechanisms like the Ukraine Reconstruction Platform (Heinonen & Korhonen, 2023). In their report, Heinonen and Korhonen (2023) identify three points regarding the present and future economic challenges in Ukraine: "Black Sea shipping needs to be restored", particularly for Ukraine's grain exports, "Long-term support needs to be full spectrum", regarding the "wider economic needs" of Ukraine, and that "Overly optimistic estimates of Ukraine's reconstruction should be avoided", as reconstruction and possible integration into the EU will take time (p. 55). The Ukrainian economy and its future rehabilitation will likely only succeed as long as the fiscal and political will of international assistance remains.

Another way the West can help Ukraine is by increasing the cost of war for Moscow. Russia's economy has been significantly affected by sanctions, departing companies, capital flight, and the European energy transition policy away from its energy industry. As Grishin (2022) points out:

The most sensitive and unexpected blow has been against the financial sector, where sanctions have

blocked almost half of the Central Bank of Russia's (CBR) foreign-exchange reserves (about \$300 billion), expelled leading Russian banks from SWIFT, and triggered capital flight from Russia. The latter will likely reach \$246 billion for 2022 and is expected to remain at the \$125 billion level in 2023. (pp. 2–3)

Such sanctions are also hurting Russia technologically; Milanovic (2022) explains that Moscow will now have to rely on “regressive import substitution” to redevelop, for example, its “domestic aviation industry” (para. 3). The EU has committed itself to replacing Russian energy imports, exemplified by Germany's decision to finish this transition by 2024 (Grishin, 2022; World Economic Forum, 2022). Such actions should continue to be encouraged and intensified by the EU.

Further divestment from the Russian economy has been insufficient. Evenett and Pisani (2022) report that of “a total of 2,405 subsidiaries owned by 1,404 EU and G7 companies” in Russia, “less than 9% of this pool of companies had divested at least one of their subsidiaries” (p. 2). Other estimates from the Yale Chief Executive Leadership Institute show that over a thousand companies have, to varying degrees, suspended operations in Russia (Sonnenfeld et al., 2023). Furthermore, among these companies, many have buy-back clauses in place in contracts with Russian subsidiaries, meaning that they can return to Russian markets (Evenett & Pisani, 2022). Buy-back clauses signal that divestment could be temporary, since companies can easily return and resume operations in the Russian Federation, thereby diminishing the long-term consequences of the invasion. Consequently, greater pressure is required to set the precedent that military aggression will not be tolerated.

Humanitarian relief is another area where more investment and attention are needed. As the International Crisis Group (ICG) (2022) points out, despite the large donations pledged for Ukraine, funds are often slow to arrive, with pledged support not always matching what is sent. While Ukraine already has previous experience with internally displaced persons (IDP) from the start of the Russo-Ukrainian conflict in 2014, the quantity of IDPs is significantly more extensive, and challenges remain (ICG, 2022). The ICG (2022) reports that those who manage to find housing frequently find it in poor conditions; there are also reports of discrimination against the LGBTQ+ community, military-age men, Roma, and Russian speakers, as well as gender-based violence and sexual abuse. Non-governmental organisations are important entities which can help cover some of the government's shortcomings regarding IDPs. Still, local officials will need to be more willing to cooperate with them.

Conclusion

Ukraine will increasingly depend on external assistance for its capabilities and economy as the war carries on. Frontline fighting in Bakhmut demonstrates the attritional nature of the warfare and the necessity for supplies currently characterising the conflict. Ukraine will continue to rely on equipment from other countries, and NATO states will need to increase production to maintain their own stockpiles. The Ukrainian economy, devastated by the invasion, seems to have stabilised. Still, the expected state deficit, the loss of domestic jobs, and the number of citizens displaced internally and externally are significant. Reconstruction will be a long and expensive process that Ukraine cannot afford, underlining the importance of continued financial assistance now and after the war. Although Western sanctions against Moscow have impacted the Russian economy, more work can be done regarding private divestment. Finally, humanitarian relief, particularly for IDPs, remains a concerning issue.

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