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EDITORS

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OFFICE

Institute for National Defense and Security Research

No.172, Bo-Ai Road, Zhongzheng Dist., Taipei City, Taiwan (R.O.C.)

Tel: 886-2-2331-2360 Ext.705 | Fax: 886-2-2331-2361

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THE REAL "GAME CHANGER" – IMPLICATIONS OF THE UKRAINE WAR

Tzu-Li Wu

INTRODUCTION

It has been more than one year since Russia's invasion of Ukraine; the Ukrainian leadership has pushed for more advanced weapons from the West and has repeatedly highlighted the need as a "game changer." Defense analysts from all sides have debated whether the conflict shows a major change in the nature of war from the perspective of "article," "event," and "person." Starting from the definition of "game changer", this article explores the possible "game changer" entities presented during the Russo-Ukraine war, and examines the views of various parties on "game change" to discuss the implications of what a real game changer should be.

DEFINING "GAME CHANGER"

"Game changer" refers to something completely new and different. It completely turns the traditional rules of the game in its field. This field could be technological, or an innovative idea, or a new development in way of dealing things, or any innovation that changes the rules of a play. "Game changer" is a neologism that has been in use since the late 1980s and early 1990s. The Oxford English Dictionary (OED) included this idiom in 1992. It must be noted that there is no hyphen between game and changer, and only the related adjective "game-changing" has a hyphen, which means "to change the outcome of the game; to change or to subvert the traditional rules of the game; to change or to subvert the traditional norms of behavior." This article focuses on "game changer" rather than that of the "game-changing."

"Game changer" was originally a sports term meaning "the person (or thing) that changes the outcome of a game," and was later adopted by the business community to mean "someone who changes or subverts the traditional rules of the game; people

who change or subvert traditional norms of conduct." Now, it refers to any person, event, innovation, idea or agreement in all fields that is completely new, very different from the past, and changes or subverts the traditional rules of the game or norms of behavior.¹

GAME CHANGERS IN THE UKRAINE WAR

Since the outbreak of the Russo-Ukraine War on February 24, 2022, many articles, events, and persons have exhibited the characteristics of "game changer."

First, from the point of view of "person," the influence of this aspect is mainly at the strategic level, and the most representative is Ukrainian President Volodymyr Zelensky. Before Russian army invaded Ukraine on February 24, 2022, the prevailing view was that Ukrainian resistance would crumble quickly. The U.S. Central Intelligence Agency thought so, as did Mark Milley, chairman of the U.S. Joint Chiefs of Staff, who reportedly predicted that Kyiv could fall in 72 hours. Yet more than a year later, Ukraine's army fights on, having achieved remarkable advances on the battlefield. In March, it repelled Russia's attack on Kyiv and areas north of the city. It had retaken Kharkiv Province by mid-September and has subsequently attacked the main Russian defense line between Svatove and Kreminna in adjacent Luhansk Province. In November, it forced Russia to withdraw from the part of Kherson Province that lies on the Dnieper River's right bank. At the end of June 2023, Ukraine has regained about half the land Russia seized since February 24, 2022.

It is clear that President Zelensky's refusal to flee to the West, with his firm determination to serve the country, led the people of Ukraine to show its strong national resilience to reverse the decline in the early stage of the war, leading and inspiring support from international alliances.

In addition, according to a media report from a French presidential source, "It's obvious that China is one of the few countries on Earth — maybe the only country in the world — to have a 'game-changer' effect on the conflict, for both sides." It shows that some Westerners believe that CCP leader Xi Jinping could have "game changer" characteristics that would influence the movements of the Russo-Ukrainian war, but this remains to be verified.

¹ "Game changer," THE HOME OF ENGLISH, May 2, 2019, https://reurl.cc/2WVk39.

² Xiaofei Xu, "French presidential source: China could be only country to have "a game-changer effect" on war in Ukraine," *CNN*, March 31, 2023, https://reurl.cc/6Nx3My.

Secondly, from the perspective of "event," the influence characteristics of this aspect are mainly at the tactical level, and may also have derivative effects on the strategic situation. The failure of the blitzkrieg in the early days of the Russian invasion of Ukraine led to a reversal of the battlefield situation can be regarded as an important "event." In addition, the sinking of the flagship of the Russian Navy Black Sea Fleet, causing the Russian Navy to take a back seat to the role of support, and the Russian army abandoning amphibious landing operation and focusing almost entirely on land operations, can also be regarded as another "event" with the characteristics of "gamer changer". The upcoming Ukrainian 2023 summer counteroffensive³ could be decisive for both sides, which means that the battle may lead to a dramatic change in the situation, and may even result in a move towards ending the war; if events unfold as some expect, then this counteroffensive campaign will indeed become a "game changer."⁴

Finally, from the perspective of "article", the influence level of this aspect is mainly at the combat level, but its spillover effect can affect tactics and even reach the strategic level with the increase of time and volume. The nuclear bomb "Fat Man" that brought the end of World War II is the most distinguished "article"; it demonstrated the influential role it served as a "game changer", not only on the battlefield but also in terms of the whole war on the combat, tactical as well as and strategic levels. As for the Russo-Ukraine war, many analysts have debated whether "articles" such as drones, tanks, armored vehicles, F-16, Starlink, HIMARS, Patriot missiles, Stinger, Javelin, ... etc. are "game changer" or not.

³ Laura Kelly, "Ukrainian prime minister arrives in DC at make-or-break moment," *THE HILL*, April 11, 2023, https://reurl.cc/5MzyNM.

⁴ Rajan Menon, "Ukraine's Best Chance: A Successful Offensive Could End the War with Russia," *FOREIGN AFFAIRS*, April 12, 2023, https://reurl.cc/mlAjQW.

⁵ Gp Capt Joseph Noronha, "Drones: A Game Changer in Future Conflict," *INDIAN DEFENSE REVIEW*, Feb 7, 2020, https://reurl.cc/KMRn1y; Max Hunder, "Inside Ukraine's scramble for 'game-changer' drone fleet," *the japan times*, Mar 26, 2023, https://reurl.cc/GeOR3G.

⁶ Drew Hinshaw and Stephen Fidler, "German-Made Leopard Tanks for Ukraine Are Politically Symbolic but No Game Changer," *The Wall Street Journal*, Jan 19, 2023, https://www.wsj.com/articles/german-made-leopard-tanks-for-ukraine-are-politically-symbolic-but-no-game-changer-11674151572.

⁷ Thomas Novelly, "F-16s Won't Be a 'Game Changer' for Ukraine, Air Force's Europe Commander Says," *Military.com*, Mar 7, 2023, https://reurl.cc/rLAGl1.

⁸ J. Kasper Oestergaard, "Is HIMARS a Game-Changer in the War in Ukraine?" *Defense & Security Monitor*, Sep 7, 2022, https://reurl.cc/Y8pN1O.

⁹ Lt. Gen. Donnie Walker, "Game Changer: Setting the Theater Key to Maintaining Dominance, Overmatch," *U.S. ARMY*, June 1, 2022, https://reurl.cc/DmEk6Q; Jake Epstein, "Ukraine has wrecked Russia's invasion plans, and these game-changing weapons have helped them do it," *INSIDER*, Jan 2, 2023, https://reurl.cc/ykG8Ka.

It is very clear that for demanders like Ukraine, almost all of the advanced weapons needs put forward to the West are emphasized as "game changers," so as to reinforce the importance and urgency of the demand, so that the major Western arms powers will respond positively to their needs. But interestingly, Ukraine leaders did not specifically emphasize drones and Starlink's role as a "game changer," and after empirical verification most analysts found that the two did exert the influence of "game changer"; this mainly stems from Ukraine's creativity and innovation, and so far almost all analysts agree that the Ukrainian military and civilians display extraordinary ingenuity when dealing with changes.

Debates on the advanced tanks and F-16 were going on when this article was written, and the solution will be revealed in the future. The most undesirable would be another "Fat Man" type of article applied in this conflict.

REAL "GAME CHANGER" INTEGRATES "ARTICLE", "EVENT", AND "PERSON"

Many so-called "Game Changers" have been discussed during the Russo-Ukraine War, some from the perspective of cost-benefit analysis, ¹¹ some from the comparison of the advantages of individual articles, ¹² and some from the overall supply chain such as equipment acquisition and maintenance. ¹³ These arguments may all be limiting and ignore the defining characteristics of a "game changer". The real "Game Changer" which by definition should be completely new, very different from the past, changes or subverts the traditional rules of the game or norms of behavior. It is clear that a revolutionary "article," applied in a critical "Event', with decision made by a key "Person" in a systematic & structural way is the most viable characteristics for being a "game changer." ¹⁴

¹⁰ "Ukraine's Zelensky tells France, Germany to provide 'game changing' weapons," *TH*, February 09, 2023, https://reurl.cc/8q8Myo.

Mohamed Basyouny Abd Elhaleem, "Game Changer: Drones Increasingly Employed in Ukraine's War. Here's Why," *InterRegional for Strategic Analysis*, May 25, 2022, https://reurl.cc/XLyYzR.

¹² Jake Epstein, "Ukraine has wrecked Russia's invasion plans, and these game-changing weapons have helped them do it," *INSIDER*, Jan 2, 2023, https://reurl.cc/ykG8Ka; Rob Schmitz and Greg Myre, "Why tanks could be a game-changer for Ukraine," *NPR*, Jan 25, 2023, https://reurl.cc/OVn37g.

¹³ T.X. Hammes, "Game-changers: Implications of the Russo-Ukraine War for the Future of Ground Warfare," *Atlantic Council*, April 3, 2023, https://reurl.cc/EGel7A.

Mark Cazalet, "The Search for Game-Changers in Ukraine," *European Security & Defense*, Sep 6, 2022, https://reurl.cc/EGelnn.

For any party participating in a game, it is the ultimate goal of the contestants to find ways to make the game turn in their favor and to win. "Game changer" needs to be viewed from the perspective of "consequence theory", and may be more appropriate from the perspective of Sun Tzu's "achieve success by a surprise move with original ideas" [出奇制勝] in the Art of War.

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Dr. Tzu-Li Wu is an Associate Research Fellow at Division of Defense Strategy and Resources, INDSR. His research interests include Military Operations Research, Defense Strategy, Defense Industry, and Defense Affair.

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WHY DID RUSSIA'S HYBRID WARFARE FAIL IN ITS INVA-SION OF UKRAINE 2022?

Tsung-Han Wu

INTRODUCTION

The Russian invasion (Vladimir Putin termed it a "special military operation") of Ukraine since February 24, 2022, has been ongoing for more than a year. Despite the fact that the end is not yet in sight, it is clear that the war scenario has not evolved according to Putin's initial plan. Over the past months, the firm resistance and resilience of the Ukrainians have offered valuable lessons and inspired many who are fighting against authoritarian regimes, including people of Taiwan. At the same time, the war is also being closely examined by revisionists seeking to reshape the global order, including China.

Analyzing its successful annexation of Crimea in 2014, existing literature reveals that Moscow's triumph at the time was a result of hybrid warfare tactics. Many analysts have observed that Russia adopted a similar approach towards Ukraine in 2022; however, the Russian effort did not yield the same result. This discrepancy has created an academic gap that this paper aims to address.¹

This paper argues that, from a theoretical standpoint, hybrid warfare is disruptive due to its nature of employing indirect approaches and non-military actions to menace. However, once Moscow launched a full-scale invasion, the military actions significantly compromised the advantages of hybrid warfare. Furthermore, in 2022, Russia found it difficult to replicate its successful tactics involving disinformation and

¹ "What is hybrid war, and is Russia waging it in Ukraine?," *The Economist*, February 22, 2022, https://www.economist.com/the-economist-explains/2022/02/22/what-is-hybrid-war-and-is-russia-waging-it-in-ukraine; Weilong Kong and Tim Marler, "Ukraine's Lessons for the Future of Hybrid Warfare," *The Nationalist Interest*, November 25, 2022, https://nationalinterest.org/feature/ukraine%E2%80%99s-lessons-future-hybrid-warfare-205922.

propaganda, as the Ukrainian people have enhanced their media literacy and awareness based on previous experience. Additionally, they have received external assistance to counter Moscow's information manipulation. As a result, while the cognitive domain used to be a weakness for Ukraine, it has now become a strength.

From below, this paper begins by reviewing the characteristics of hybrid warfare. It then explores the countermeasures developed by Ukraine in response to the Russian operation. The paper acknowledges Moscow's activities but refrains from delving into detailed discussion, as many existing analyses have already covered those aspects. Instead, it focuses on explaining the reasons behind the failure of Russian hybrid warfare tactics.

HYBRID WARFARE AND ITS INDIRECT APPROACH CHARACTERISTIC

Often referred to as "the smoothest invasion of modern times," Russia's annexation of Crimea in 2014 during the EuroMaidan Revolution serves as a notable example of hybrid warfare. The term itself not only holds analytical value but also represents a practical framework that guided Russia's operations during that period and afterwards.

The theory of hybrid warfare was initially proposed by Frank Hoffman, a US military theorist who generalized a pattern from the armed conflict between Israel and Hezbollah in Lebanon in 2006. He argues that it is a mode blurring lines between actors, tactics, battlefields as well as formations in which high- and low-intensity warfare may occur simultaneously. The concept of hybrid warfare transforms the traditional Western knowledge of warfare. Having witnessed the Russian annexation of Crimea, many analysts including Hoffman suggested that Moscow's operation featured another example of hybrid warfare, and it showcased further advancements.³

Since then, the security studies community has undertaken a reconceptualization of their understanding of hybrid warfare. The European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE) defines it as "an action...goal is to undermine or harm a target by influencing its decision-making at the local, regional, state or institutional level." The attacker typically targets vulnerabilities in democratic states and their institutions. These activities can occur across different domains such as political,

² Kishika Mahajan, "Russia's hybrid warfare strategy: From Crimea to Ukraine," *ORF*, March 1, 2022, https://www.orfonline.org/expert-speak/russias-hybrid-warfare-strategy/.

³ Frank Hoffman, "On Not-so-new Warfare: Political Warfare VS Hybrid Threats," *War on the Rocks*, July 28, 2014, https://warontherocks.com/2014/07/on-not-so-new-warfare-political-warfare-vs-hybrid-threats/.

economic, military, civil, or information.4

In another place, NATO suggests that hybrid warfare "entails an interplay or fusion of conventional as well as unconventional instruments of power and tools of subversion" in which "instruments or tools are blended in a synchronized manner to exploit the vulnerabilities of an antagonist and achieve synergistic effects." Arguably, hybrid warfare is often launched below the threshold of war and avoids overt military attack. With its resulting uncertainties, the adversary is then easily confused and fails to react in a timely way.⁵

The so called "Gerasimov Doctrine" is a classic theory of Russian hybrid warfare. From the Russian viewpoint, many cases of regime change in the post-Soviet era were in fact related to the US and West; these cases included the NATO's Yugoslavia intervention, Color Revolution, and the Arab Spring. Arguably, the West's operations can be divided into three main phases. First of all, the West sought to install political opposition, nongovernmental organizations, and media. Secondly, the creation of political dissent and voices destabilizing local social order, and then the imposition of economic, political, and even military activities when acquiring a window of opportunity. Eventually, the building of a friendly regime. 6

Referring to a graphic (see Table 1), it is clear that the "Gerasimov Doctrine" integrates the previous experiences and conceptualizes a conflict into multiple stages and highlights indirect and asymmetric thinking. It underlines power from conflating non-military and military measures, roughly a four-to-one ratio. Between both, information plays a significant role as a weapon and in its own right. Furthermore, through amplifying the existing societal, political, economic, cultural, or ideological divisions in the target society, the Doctrine intends to undermine the society's cohesion and resilience. Importantly, hybrid warfare always seeks tailored breach of the vulnerabilities of the target society.

In its substance, hybrid warfare shares many ideas with Liddell Hart's "indirect approach" at both strategic level and tactical levels. According to his theory, the true gauge of an indirect approach is seeking to disturb the opponents' and thus throw them off balance. Informational method is a crucial aspect. Similarly, Sun Tzu in The

⁴ "Hybrid threats as a concept," *Hybrid CoE*, https://www.hybridcoe.fi/hybrid-threats-as-a-phenomenon/.

⁵ Arsalan Bilal, "Hybrid Warfare – New Threats, Complexity, and 'Trust' as the Antidote," *NATO Review*, November 30, 2021, https://www.nato.int/docu/review/articles/2021/11/30/hybrid-warfare-new-threats-complexity-and-trust-as-the-antidote/index.html.

⁶ Charles Bartles, Getting Gerasimov Right, Military Review (January-February 2016), 31-33.

Art of War also underscores the advantages of an indirect approach. While these concepts and theories were developed in different contexts, they all touch upon the argument that a direct approach easily lacks adaptability and flexibility, leading to the exhaustion of the attacker and provoking counterattacks.⁷

Applying the concept to analyze the Crimea crisis, Russia utilized various tools such as the Internet, social media, and propaganda systems, alongside a covert invasion. These actions align closely with the principles of hybrid warfare. Moscow expected to replicate its previous success in 2022. Prior to the military attack in February, it disseminated pro-Russian messages and narratives, planned false-flag activities, and engaged in cyberattacks targeting local critical infrastructure. However, as Russia relied on physical attacks, the situation may not entirely fit within the framework of hybrid warfare. Furthermore, with accumulated experience from events since 2014, the Ukrainians have developed enhanced capabilities to counter Russian aggression and address their informational strategies. The following section will delve further into this discussion.

⁷ Sibylle Scheipers, "Winning Wars without Battles: Hybrid Warfare and Other Indirect Approaches in the History of Strategic Thought," in *Russia and Hybrid Warfare-Going Beyond the Label* (Finland: Aleksanteri Institute: 2016), 48-50.

⁸ Davev Alba, "Russia has been laying groundwork online for a 'false flag' operation, misinformation researchers

say," *The New York Times*, February 19, 2022, https://www.nytimes.com/2022/02/19/business/russia-has-been-laying-groundwork-online-for-a-false-flag-operation-misinformation-researchers-say.html; Frank Hofmann, "Hybrid war began before Russian invasion," *DW*, February 25, 2022, https://www.dw.com/en/hybrid-war-in-ukraine-began-before-russian-invasion/a-60914988.

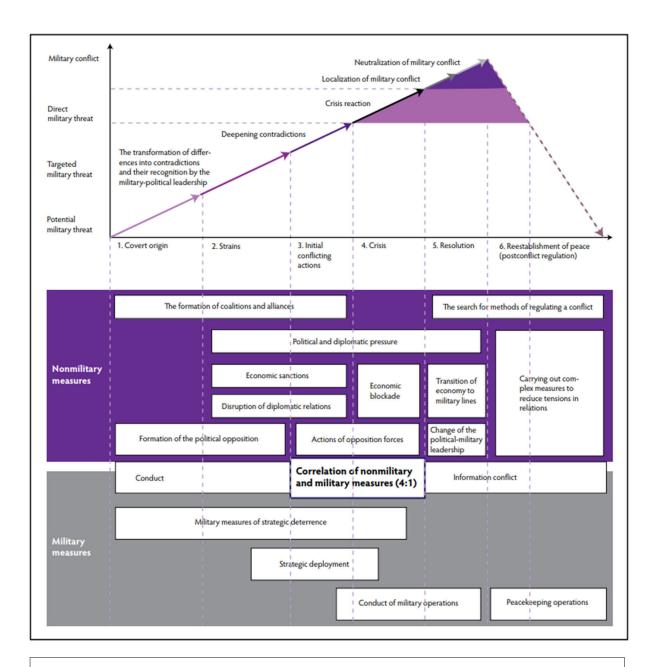


FIGURE: Gerasimov's Hybrid Warfare

(Source: Valery Gerasimov, The Value of Science is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying Out Combat Operations, *Military Review* (January-February, 2016), 28.)

UKRAINIAN COUNTERMEASURES AGAINST RUSSIAN INFORMATION MANIP-ULATION AND COGNITIVE WARFARE

After the loss of Crimea, Ukraine continued to face a relentless onslaught of information attacks. These included the dissemination of fake news and disinformation by pro-Russian news media and social networking platforms, cyberattacks launched by hackers targeting governmental agencies and Ukraine's critical infrastructure, and

military-sponsored separatism in Donbass, Eastern Ukraine. These coordinated activities aimed to undermine the security of state and society, creating a pervasive sense of uncertainty and fear while justifying Russian encroachments on Ukraine's sovereignty since 2014. The Kremlin skillfully crafted narratives and propagated them not only through Russian state-controlled media and networks but also through local collaborators in Ukraine who infiltrated social spaces widely-used by Ukrainians.

To mitigate the potentially negative impacts, the former administration of Petro Poroshenko banned social media and other Internet resources and software from Russia. Many NGOs also promoted media literacy in the civil areas.⁹

Due to prolonged exposure to Russian disinformation, it can generally be said that most Ukrainians have developed the ability to discern between true stories and pro-Kremlin propaganda and disinformation claims, especially when it comes to political topics. In recent years, Ukraine-based fact-checking organizations such as Ukraine Today, StopFake, VoxCheck have been established and have expanded their interaction and collaboration with the EU- and NATO- sponsored agencies, exchanging experiences and measures against Russian deceptions. After the war of 2022 broke out, some also built connections to Taiwan which has gained rich experience of countering China's hybrid threat challenges and gray-zone operations. ¹⁰

Asked about whether the US Department of Defense has capabilities to tackle the hybrid threats, Christopher S. Chivvis, then deputy head of the RAND Corporation's international security program of the House of Representatives, outlined a list of elements, ranging from interagency coordination and support for European countering of Russian operations, in addition to the continued investment in conventional forces.¹¹ We saw the US achieved their commitments.

Prior to the war, the US and NATO set up a variety of teams and programs helping Ukraine to train and improve it capabilities to better deal with the Russian challenges. Also, the NATO and the EU established the Hybrid CoE to develop intellectual

⁹ Reuters Staff, "Ukraine slaps sanctions on Russia's Yandex, other web businesses," *Reuters*, May 16, 2017, https://www.reuters.com/article/ukraine-crisis-sanctions-idUKL8N1II24F; "Enhancing media literacy in Ukraine during the Russian aggression," *International Information Academy*, April 10, 2019, https://interacademy.info/en/enhancing-media-literacy-in-ukraine-during-the-russian-aggression/.

^{10 &}quot;85 guo gong zhu zi xun zhan quan qiu fang xian 5423 ze cha he bao gao di yu zhan shi bu shi xun xi" [85 國共築資訊戰全球防線 5423 則查核報告抵禦戰事不實訊息 85 Countries Jointly Build Global Defense Line of Information Warfare Completing 5423 Fact-checking Reports Against Disinformation], *Taiwan FactCheck Center*, February 24, 2023, https://tfc-taiwan.org.tw/articles/8841.

Christopher S. Chiwis, "Understanding Russian 'Hybrid Warfare' And What Can Be Done About It," *RAND*, March 22, 2017, https://www.rand.org/pubs/testimonies/CT468.html.

and practical policies and measure proposals to counter the hybrid threats which Ukraine faces. Such assistance is valuable in fostering Ukrainian resilience at governmental and civil levels. At the same time, they have built confidence in integration with Europe and believe that they receive support from the West.

At the onset of the war, Russia exerted its leverage through waves of distributed denial-of-service attacks (DDoS), ransomware attacks, and internet-based disinformation campaigns targeting critical infrastructure and civilians. The intention behind these kinetic activities was to exploit the ensuing chaos. Echoing Putin's speeches and narratives, Russia's initial objective was to incapacitate Ukrainian defenses and ultimately take control of the entire country in a short time. However, the actual scenario played out quite differently.

In the face of violent assaults, the Ukrainian people stood their ground. Governmental and civil channels persevered, ensuring the delivery of messages to both the public and the outside world. They capitalized on various social media platforms, such as Facebook (FB), Instagram (IG), Telegram (TG), and Twitter, where numerous channels and groups were created, numbering in the thousands. Volodymyr Zelensky and senior officials frequently released recordings and posts on social media to clarify the situation and progress on the battlefield. Mykhailo Fedorov, the Minister of Digital Transformation and First Vice Prime Minister, called for volunteers to form a Ukrainian IT army and join the fighting. The request received a great response, one of them from the hacking collective Anonymous. Fedorov also posted his request on Twitter, appealing to Elon Musk to provide the Starlink service and then receiving a positive answer. This low-orbit satellite internet has made an invaluable contribution to the Ukrainians in terms of maintaining daily communications and allowing forces to keep fighting on the frontlines.

With these commitments, the Ukrainian people were not only motivated to maintain a high degree of resistance but also succeeded in forging a sophisticated global network to seek external support and exert pressure on Russia. Simultaneously, Ukrainian sources often highlighted the challenging circumstances and low morale of Russian soldiers as part of their psychological warfare strategy. This approach served to reinforce the determination of the Ukrainian people. Through the use of pictures, videos, and words, Ukrainians not only obtained accurate information

Dan Milmo, "Anonymous: the hacker collective that has declared cyberwar on Russia," *The Guardian*, February 27, 2022, https://www.theguardian.com/world/2022/feb/27/anonymous-the-hacker-collective-that-has-declared-cyberwar-on-russia; "Elon Musk says Starlink internet service 'active' in Ukraine," *Aljazeera*, February 27, 2022,

but also reached out to the world for support. As a result, the Ukrainian voice and message have become a potent weapon against Russia, which has been at a disadvantage on the information battlefield.

CONCLUSION

While much of the existing literature agrees that Russia employed hybrid warfare during its invasion in 2022, there were distinct differences in emphasis compared to the activities observed in 2014 when Putin launched the "special military operation." In the recent invasion, Russia indeed employed non-military means such as cyberattacks, disinformation campaigns, and cognitive warfare, alongside blatant military action to occupy Ukrainian territory. Faced with this urgent crisis, the Ukrainian government and civil society demonstrated unity and refused to accept any excuse that sought to legitimize the invasion.

Interestingly, Moscow's preference for violence over other covert informational means to undermine Ukraine's sovereignty has transformed its previous indirect approach of hybrid warfare, as witnessed in 2014, into a more direct approach. In the earlier instance, Russia deployed only a small number of troops and extensively exploited domestic divisions surrounding pro-EU and pro-Russia diplomacy, as well as ethnic conflicts within Ukraine, to intervene in the state. In the cognitive domain, the Kremlin deceitfully manipulated the sense of insecurity and uncertainty to advance its interests. However, prioritizing the military now is likely to backfire, rendering other efforts futile. The Ukrainian people have formed a unified aversion to the invasion and possess unwavering determination to resist.

Recalling one of the principles in Liddell Hart's theory, "do not attack if your enemy is on guard," it has become evident that Russian aggression has proven ineffective and only served to strengthen the will of the Ukrainian people. With continued support from the international community, there is no doubt that Ukraine will not make any concessions. Consequently, the ongoing Russian-Ukrainian war will be a contest of pure force.

Dr. Tsung-Han Wu is an Assistant Research Fellow at Division of Cyber Security and Decision-Making Simulation, INDSR. His research interests include Cybersecurity, Cognitive Warfare, International Relations, and Chinese Politics.

DEFENDING THE ECONOMY: RUSSIA'S EXPERIENCE OF COUNTERING EU SANCTIONS IN 2022

Charles CJ Wang

INTRODUCTION

On 21 February 2022, Russian President Vladimir Putin signed the recognition of two breakaway provinces in eastern Ukraine, Donetsk and Lugansk, and sent troops into the eastern part of Ukraine in the name of peacekeeping; after 2 days, Russia sent troops to Ukraine from the northeast, southeast, and south. The U.S. and European Union (EU) immediately imposed economic and financial sanctions against Russia. The sanctions were initiated right before the start of the Russia-Ukraine War. By 25 February 2023, the EU had approved 10 packages of sanctions (see Appendix below). This article assesses the impact of the EU's sanctions on Russia's energy, trade, financial and personnel.

EU SANCTIONS AGAINST RUSSIA

Usually, EU uses sanctions, or in the EU's term "restrictive measures", to target particular policies or behaviors, and those who are responsible for implementing those policies, rather than on a specific country or population. The EU stresses the imposition of sanctions is not punitive and is one of the means by which the EU's policy makers form a holistic political dialogue, while trying to minimize the impacts on civilians and non-targeted sectors. Traditionally, the EU adopts, in addition to asset freezes and travel bans for individuals, sectoral measures (e.g. economic, financial, export and arms restrictions).

In the case for sanctions imposed on Russia since the war broke out, however, the 10 rounds of sanctions adopted by the EU so far go way beyond those mentioned above,

ranging from energy, finance, trade, industry, freezing of the assets of the Central Bank of Russia (CBR), important political, military and economic personnel, suspension of exchanges in science and technology, sports, culture and academic spheres, sea and air blockade, military and civilian dual-use embargo, etc. More than 1,000 corporations followed up on these government-imposed sanctions with their own sanctions, whereby companies restricted or halted commercial activities in Russia.

The EU's sanctions against Russia have two purposes: (1) to limit Russia's access to various resources, such as capital, weapons components, etc., to cause serious consequences for Russia's invasion of Ukraine, and to effectively undermine Russia's ability to continue its aggression; (2) to hobble the Russian economy, and make Putin's regime unpopular domestically, and hopefully to bring an end to Putin's regime.

THE COST OF SANCTIONS

From a micro perspective, the total of personal assets frozen in the EU has reached €21.5 billion, and €300 billion for CBR assets. From a macro perspective, €43.9 billion in EU's exported goods to Russia and €91.2 billion in imported goods from Russia are under sanctions.¹ According to the latest Russian statistics, however, under the comprehensive economic blockade from the West, Russia's GDP fell only 2.1% in 2022, which is very different from the estimate at the beginning of the war.² Under the economic sanctions of the West, Russia will suffer a huge loss of economic potential in the future. The loss comes from two sources.

The first is the loss of the export market. Raw material export is the major source of fiscal earnings for Russia, and Europe is Russia's largest raw material market. In 2021, the total EU-Russia trade in goods amounted to \$282.1 billion, accounting for 36% of Russia's trade in goods. The EU's imports were worth 158.5 billion and were dominated by fuel and mining products – especially mineral fuels (98.9 billion, 62%), wood (3.16 billion, 2.0%), iron and steel (7.4 billion, 4.7%), and fertilizers (1.78 billion, 1.1%). 3 The following section discusses the heaviest hit sectors of the Russian economy: energy and finance.

¹ "EU sanctions against Russia explained," *European Council*, June 26, 2023, https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/sanctions-against-russia-explained/.

² "Russian GDP down 2.1% in 2022 — statistics," *TASS*, April 4, 2023. https://tass.com/economy/1601481; "Russia's GDP decline could hit 12.4% this year, economy ministry document shows," *TASS*, April 27, 2022, https://www.reuters.com/business/russias-gdp-decline-could-hit-124-this-year-economy-ministry-document-shows-2022-04-27/.

³ "Russia- EU trade relations with Russia. Facts, figures and latest developments," *European Union*, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/russia_en.

SANCTIONS ON RUSSIAN ENERGY

The most important economic tie between Russia and EU is energy, thus the EU did not focus its sanctions on energy, while the United States and the United Kingdom announced as early as March 8 that they would stop importing Russian energy. On March 11, the EU's informal summit promised to end its dependence on Russia's "as soon as possible" without setting an exact date, and reluctantly proposed to completely end its dependence on Russian energy by 2027. Affected by the Bucha Massacre in early April, public opinion began to change, and even Germany, one of the most conservative countries in sanctioning the Russian energy sector, began to waver. The German Defense Minister stated that the EU must discuss an embargo on Russian natural gas. In early May, European Commission President Ursula von der Leyen announced the details of the sixth round of sanction against Russia, including gradually ending dependence on Russian oil. Crude oil would be phased out within six months, and refined oil by the end of 2022. In order to persuade related countries like Hungary, Slovenia, and the Czech Republic not to veto these plans, Brussels gave these countries permission to import oil through the Friendship Pipeline without restrictions.

In addition, a ban on insurance and financing of oil shipments to third countries was proposed. As EU operators are important providers of such services, such a ban would make it difficult for Russia to continue exporting its crude oil to the rest of the world. However, as UK only banned Russian tankers from entering the UK after December 31, 2022 and the oil price hiked after June, the EU postponed the initiative.

The eighth round of sanctions, following on the previous G7's oil price ceiling on Russian seaborne oil, adopted a price cap on Russian crude oil and petroleum products exports to third counties starting from December 5, 2022 and February 5, 2023 respectively. The initial price cap for crude oil was set at \$60 per barrel, while petroleum product at \$100 per barrel. The price cap is adjustable to meet the market situation.

FINANCIAL SANCTIONS

Financial sanctions include several elements, namely freezing the foreign assets of CBR and Russian nationals, prohibiting access to European financial markets. The first three rounds of sanctions focused primarily on prohibiting the provision of financial services and funds in the money and stock markets to the Russian government, the Central Bank and organizations under their control, and state-owned enterprises, thereby cutting off Russia's access to Western capital markets. In addition, in the area of personal finance, the acceptance of Russian residents' deposits above a certain value is prohibited, as well

as the holding Russian clients' accounts by EU central securities depositories, in order to prevent the Russian elite from hiding their wealth in Europe.

At the beginning of these sanctions in the U.S. and Europe, Russian banks suffered a run on the ruble, which fell by 30% to as low as 110 rubles to the U.S. dollar; the CBR immediately raised interest rates from 9.5% to 20% in an attempt to retain deposits and provided 10 trillion rubles to maintain liquidity. The Moscow Exchange, the main marketplace for stocks, bonds, derivatives and currencies, suspended trading on all markets on February 24. In view of this, international credit rating agencies such as Standard & Poor's, Moody's and Fitch lowered Russia's sovereign credit rating, and the impact on Russia's financial stability begun to emerge.

As people expected sanctions would result in insufficient stocks of household appliances, cars, electronic devices, and furniture and food, active buying of manufactured goods and non-perishable food products started to emerge, and the inflation rate jumped to 17% for 3 consecutive months since March 2022.

RUSSIA'S COUNTER SANCTION MEASURES

In hindsight, although the economic sanctions did not have a major economic impact, they did initially have a significant psychological impact on Russian society, as witnessed by the free fall in the stock and money markets. In addition to the measures implemented stated above, CBR also adopted several measures to counter the West's hostility. In an attempt to boost ruble demand and counter the removal of Russian banks from the SWIFT messaging system, on March 31, Putin signed a decree demanding buyers from "unfriendly" counties pay in rubles for Russian gas from April 1. A recent review shows that, after the transfer of payment for natural gas to rubles, the share of rubles in settlements exceeded 30% by the end of the year, similar to that of the US dollar and exceeding that of the Euro. That said, the total percentage of US dollar and Euro is still considerable in 2022, only slightly less than 50%.

In order to keep the foreign reserves information secret, an amendment was made to the Law on State Secrets, excluding information about the amount of gold reserves

⁴ "Statement by Bank of Russia Governor Elvira Nabiullina in follow-up to Board of Directors meeting on 18 March 2022," *Bank of Russia*, March 18, 2022, https://www.cbr.ru/eng/press/event/?id=12765.

⁵ "Moscow Exchange suspends trading on all markets," *Reuters*, February 24, 2022, https://www.reuters.com/business/moscow-exchange-suspends-trading-all-markets-2022-02-24/.

and foreign exchange reserves from the list of information that is not subject to classification. Before sanctions, the Central Bank published the structure of reserves, including the amount of gold in physical and value terms and the amount of currency deposits in other central banks and foreign commercial banks, etc. on a monthly basis.

The Russian government also adopted the following measures, as shown in Table 1.

TABLE 1: Counter Sanction Measures of the Russian Government

Sphere	Measures
Finance	(1) providing loans at preferential rates; (2) deferring deadlines for tax, loan principal and interest; (3) extending the Fast Payment System to small and medium-sized businesses to avoid risk of disconnecting from the international payment systems; (4) grants for young entrepreneurs between 100 - 500 thousand rubles; (5) allocating an additional 14.3 billion funds for concessional loans, and injecting 9 billion rubles for the capitalization of the SME Corporation, which provides unsecured loans to SMEs; (6) Extension of the deadline for the advance payment of income tax; (7) Restructuring loans with floating rates; (8) Preferential access to infrastructure for small industries; (9) Preferential loans for replenishment of working capital within the framework of the national SME project; (10) Preferential loans at 3% for high-tech; (11) SME Corporation guarantees - up to 50% of the loan amount.
Tax	(1) extension of the deadline for paying tax under the simplified tax system;(2) resetting the VAT rate for the hotel business.
IT	IT companies exempted from inspections and payment of income tax for 3 years.
Administrative Burden	moratorium on bankruptcy; (2) moratorium on scheduled business inspections; (3) simplification of confirmation of the country of origin of goods; (4) reduced fines for micro and small SMEs and non-profit organizations; (5) renewal of driving license; (6) temporarily allowing amendments to the terms of concession agreements (CAs) without holding a tender.
Import substitu- tion	import customs duty exemption for 6 months for goods used in food, phar- maceutical, metallurgical, digital, and electronic products and goods used in the light industries, construction and transport industries.

Source: Министерство экономического развития Российской Федерации, "Меры поддержки бизнеса в условиях санкций [Measures to support business under

/economics/07/06/2022/629df6409a7947a6b36cc7bf.

⁶ "Власти предложили снять запрет на засекречивание золотовалютных резервов [The authorities Proposed to Lift the Ban on the Classification of Gold and Foreign Exchange Reserves]," РБК, 7 июн 2022, https://www.rbc.ru

sanctions]," https://www.economy.gov.ru/material/directions/sanctions_measures/; Государственная Дума Федерального Собрания Российской Федерации, "До конца 2022 года концессионные соглашения, концедентом по которым является субъект РФ, смогут заключать без конкурса [Concessional Agreements will be able to Conclude without a Tender for a Constituent Entity of the Russian Federation Until the End of 2022]," 6 июля 2022. http://duma.gov.ru/news/54847/.

WHY SANCTIONS WON'T WORK

After more than a year of sanctions, Russia's economic recession, the ruble exchange rate, trade volumes, and bank failures have not been as dramatic as expected at the beginning of sanctions. The IMF also predicted in the World Economic Outlook published in January 2023 that Russia's GDP growth in 2023 will be 0.3%.

There are several reasons for the ineffectiveness of sanctions. First, since 2014, Russia has been building a so-called "Fortress Russia," which includes the creation of large foreign currency reserves, food security, i.e. a doubling of grain production since 2012, as well as a wire message transfer system called System for Transfer of Financial Messages (SPFS). Furthermore, the prompt interest rate hike from 9.5% to 20%, the extensive capital restrictions on capital movement to prevent capital flight, and the closure of financial markets are considered the most effective defense mounted by the CBR.⁸

Second, sanctions can only change the route of commodity flows, but can't block the route. Many incidents of crude oil and LNG shipped from Russia to the EU via the third countries have been observed after the energy sanctions. For those sanctioned commodities, traders use Turkey, Kazakhstan, and Armenia to dodge sanctions against Russia, which made the trade amount of these countries with Russia increase substantially. U.S.

Darian Woods, "Economic warfare vs. Fortress Russia," *NPR*, March 1, 2022, https://www.npr.org/2022/03/01/1083804497/economic-warfare-vs-fortress-russia; Tony van der Togt, "Will Putin's War Lead to The Collapse of Fortress Russia?" *Clingendael*, June 24, 2022, https://www.clingendael.org/publication/will-putins-war-lead-collapse-fortress-russia-0.

⁸ Paddy Hirsch, "Why sanctions against Russia aren't working — yet," *NPR*, December 6, 2022, https://www.npr.org/sections/money/2022/12/06/1140120485/why-the-sanctions-against-russia-arent-working-yet; Paul Krugman, "Wonking Out: The Curious Case of the Recovering Ruble," *The New York Times*, April 1, 2022, https://www.nytimes.com/2022/04/01/opinion/russia-ruble-economy.html?utm_source=headtopics&utm_medium=news&utm_campaign=2022-04-01.

Andrius Sytas, "Latvia says traders use Turkey, Kazakhstan, Armenia to dodge Russia sanctions," *Reuters*, February 3, 2023, https://www.reuters.com/world/latvia-says-traders-use-turkey-kazakhstan-armenia-dodge-russia-sanctions-2023-02-03/; "Sanctions Loophole Closed as Turkey Blocks Parallel Imports to Russia," *The Moscow Times*, March 9, 2023, https://www.themoscowtimes.com/2023/03/09/sanctions-loophole-closed-as-turkey-blocks-parallel-imports-to-russia-a80436; Joanna Lillis, "Kazakhstan to Strengthen Screening of Re-Exports to Russia," *The Moscow Times*, March 24, 2023. https://www.themoscowtimes.com/2023/03/24/kazakhstan-to-strengthen-screening-of-re-exports-to-russia-a80602.

and the EU have tried to close these loopholes by strengthening the custom screening in these countries.

Third, Russia did its best to enhance its economic tie with Asia after the sanctions started. "Pivot to Asia" has been Putin's policy since 2012. Oil and gas successfully sold to Asia, especially China and India, have largely mitigated the loss of the EU market.

CONCLUSION

Although Russia has actively responded to Western economic sanctions and the short-term economic losses are not as severe as expected, but as time goes by, the impact will become more and more noticeable. For example, some components and software for which Russia has long relied on imports cannot be replaced or updated, which will reduce productivity in the future. Other intangible losses brought about by the war are still to emerge. For example, young men emigrating to neighboring countries to avoid mobilization has cause a large loss of young scientific researchers and information professionals. The effects of a prolonged production decline will slowly become apparent.

APPENDIX: Eu Sanctions Against Russia

Date	Energy	Finance	Trade and Industry	Personnel and international ORGs
Feb. 22, 2022	halt the certification of Nord Stream 2			
Feb. 23 (1st package)		prohibition on providing financial market services and funds for the Russian government, CBR, or ORGs under their control	prohibit Donetsk and Luhansk from trade, investment, tourism, and export of miner- als, metals, machin- ery, military-related products and mining technologies	asset freezing and travel bans on 351 members of the Rus- sian State Duma & 27 high profile individu- als and entities
Feb. 25, 2022 (2 nd package)	prohibit the sale, sup- ply, transfer or export to Russia of specific goods and technolo- gies for oil refining	cut Russia's access to the most important capital markets; pro- hibit the acceptance of deposits exceeding a certain value from Russian nationals or residents, the holding of accounts of Rus- sian clients by the EU Central Securities Depositories, the sell- ing of euro-denomi- nated securities to Russian clients	ban the sale of all air- craft, spare parts and equipment to Russian airlines; restrictions on exports of dual- use goods and tech- nology	asset freezing of the Russian President, Minister of Foreign Affairs, members of the National Security Council, and the re- maining members of the Russian State Duma; visa facilita- tion provisions for officials and busi- nessmen
Feb. 28, 2022		prohibit any transac- tion with CBR unless	ban on the overflight of EU airspace and	add 26 individuals and 1 organization to

Date	Energy	Finance	Trade and Industry	Personnel and inter-
	3,		,	national ORGs
(3 rd pack-age)		absolutely necessary	on access to EU air- ports by Russian car- riers of all kinds	the list of sanction
Mar. 2, 2022 (3 rd package)		exclude key Russian banks from the SWIFT system; Pro- hibit investing in pro- jects co-financed by the Russian Direct Investment Fund; Prohibit the provision of euro-denominated banknotes to Russia	Prohibit state-owned media Russia Today and Sputnik from broadcasting in the EU	
Mar. 15, 2022 (4 th package)	ban on new invest- ment in the Russian energy sector.	prohibit EU agencies from providing financial rating services to Russian companies	prohibit transactions with certain Russian State-owned enter- prises, with the ex- ception of State- owned banks, rail- ways and the mari- time shipping regis- ter; Prohibit the ex- port of luxury goods; ban on imports of iron and steel prod- ucts	add 15 individuals and 9 ORGs to the list of those sanc- tioned
Apr. 8, 2022 (5 th package)	ban on all forms of Russian coal.	asset freeze on four additional Russian banks (Bank Otkritie, Novikombank, Sovcombank & VTB); prohibit provision of high-value crypto-asset services; ban on providing trust services to wealthy Russians	freight road operators working in the EU, except for shipment for essentials; export bans on quantum computing, advanced semiconductors, sensitive machinery, transportation and chemicals; exclude Russia from EU public contracts	addition of a further 217 individuals and 18 ORGs on the sanction list
Jun. 3, 2022 (6 th package)	Crude and refined oil embargo with exception for Bulgaria & Croatia; prohibit EU operators from providing maritime oil tanker insurance and finance services to non-EU countries	exclude Russian banks (Sberbank, Credit Bank of Mos- cow & Agricultural Bank from the SWIFT system	expand list of dual- use technology ex- port; suspension of Rossiya RTR/RTR Planeta, Rossiya 24/Russia 24, and TV Centre International; ban on providing ac- counting, auditing, statutory audit, bookkeeping and tax consulting services, business and man- agement consulting, and public relations services	add further 65 individuals and 18 ORGs on the sanction list

Date	Energy	Finance	Trade and Industry	Personnel and international ORGs
Jul. 21, 2022 (7 th package)	exempt certain Russian state-owned companies from transporting oil to third countries	sanctioned people obliged to declare their assets, in order to facilitate the freez- ing of their assets in the EU extending bans on accepting de- posits	gold import ban; Ex- port controls on dual use and advanced technology rein- forced by extending the list of items; Port access ban	add a further 48 individuals and 9 ORGs on the sanction list
Oct. 5, 2022 (8 th package)	implement the G7 oil price cap	sanctioned people are obliged to declare their assets, in order to facilitate the freez- ing of their assets in the EU	gold import ban; extend items on export controls on dual use & advanced technology; additional import restrictions on steel products, machinery, plastic, textile, etc., additional restrictions on Stateowned enterprises, Deterring sanctions circumvention	add 28 individuals and 7 ORGs on the sanction list, and those involved in Russia's occupation, annexation, and sham "referenda" in the oc- cupied territories of the Donetsk, Luhansk, Kherson, and Zaporizhzhia re- gions to sanction list
Dec. 22, 2022 (9 th package)		ban on the Russian Regional Develop- ment Bank	four additional Russian channels sanctioned in the EU; cutting Russia's access to drones, laptop, printed circuits, radio navigational systems, radio remote control apparatus, aircraft engines and parts of engines, cameras and lenses	add almost 200 additional individuals and ORGs
Feb. 25, 2023 (10 th package)	prohibit Russian nationals and entities booking gas storage capacity	add 3 Russian banks to the list of asset freeze and the prohi- bition to make funds and economic re- sources available	new export restrictions on sensitive dual-use and advanced technologies, heavy trucks, goods easily directed to military use, etc., additional import ban on bitumen, synthetic rubber	add about 120 individuals and entities to sanctions list

Dr. Charles CJ Wang is an Assistant Research Fellow at Division of Cyber Security and Decision-Making Simulation, INDSR. His research interests include Quantitative Analysis, Supply Chain Security, and Russian Economy.

ON THE VARIABLES IN THE RUSSIA-UKRAINE WAR

Shiau-Shyang Liou

INTRODUCTION

The Russia-Ukraine War has been raging for over a year and the war situation remains at a stalemate. Ukraine has vowed to expel Russian troops within its borders and even retake Crimea, which Russia annexed in 2014, rather than ceding territory or making any compromises to end the war. On the other side, Russia has carried out partial mobilization to compensate for the shortage of front-line troops and has shown no intention of accepting a truce.

It is evident that the Russia-Ukraine War will be difficult to resolve. However, the future development of the war will be influenced by many variables, not just the battles between Russia and Ukraine. The paper aims to explore the variables related to the Russia-Ukraine War in an attempt to provide a comprehensive understanding of the war.

WESTERN "UKRAINE FATIGUE"

Since Ukraine turned the tide of the war and regained Kharkov and Kherson from September to November 2022, its determination to refuse to negotiate with Russia has become firmer. However, the war situation reached a stalemate thereafter, and Ukraine has continued to seek increased military aid from the West, particularly heavy armaments, to facilitate the recovery of territory.

Western support for Ukraine has been crucial to its resistance against Russian aggression. In addition to providing military aid, the West has imposed economic sanctions on Russia with the aim of undermining Russia's ability to continue the war while strengthening the Ukrainian army's resistance. However, the West's military aid to

Ukraine is constantly depleting its own military reserves, and the economic sanctions against Russia have also made Western economies pay a price. These negative impacts on Western countries have led to growing public dissatisfaction, resulting in what is known as "Ukraine Fatigue."

Raphael S. Cohen and Gian Gentile, two RAND Corporation researchers, believe that "Ukraine Fatigue" is a myth rather than a fact, and they point out that the United States has not suffered losses on the battlefield, nor has it suffered energy shortages. Besides, aid to Ukraine does not come at the expense of domestic spending, and Americans also do not pay higher taxes due to the war. However, a Reuters/Ipsos poll of more than 4,000 people conducted between February 6 and February 13 2023 showed that the level of support for military aid to Ukraine of the US public dropped from 73% in April 2019 to 58% in February 2023.2 Although the level of support is still above half, the decline undoubtedly serves as a warning signal of a potential further decrease support in future, and it may even decline in the future due to the unfavorable battlefield situation the Ukrainian army faces. Furthermore, aid to Ukraine has bipartisan support in the U.S. Congress, but there are still dissenting voices. That is, they ask that when the United States is facing high inflation and economic difficulties, why should we spend a huge amount of money to assist Ukraine? While U.S. President Joe Biden has expressed firm support for Ukraine, the United States has also indicated that it will not provide indefinite aid at the current level. A growing number of Republicans have also begun to question the practice of supporting a war with no end in sight. Kevin McCarthy, Speaker of the United States House of Representatives, already made it clear in October 2022 that he would not write a "blank check" to Ukraine, and he reiterated his stance when he refused the invitation of Ukrainian President Volodymyr Zelensky to visit Kyiv in March 2023.

The United States is the main and most important supporter of Ukraine in the Western camp.⁴ Without the support of the United States, the war situation is more

¹ Raphael S. Cohen, Gian Gentile, "The Myth of America's Ukraine Fatigue," *RAND*, January 3, 2023, https://www.rand.org/blog/2023/01/the-myth-of-americas-ukraine-fatigue.html.

² Simon Lewis, Patricia Zengerle and Humeyra Pamuk, "Analysis: Can U.S. Support for Ukraine Last as War Enters Second Year?" *Reuters*, February 23, 2023, https://www.reuters.com/world/europe/ukraine-war-enters-second-year-can-us-support-last-2023-02-22/.

³ Emily Brooks, "McCarthy Warns No 'Blank Check' to Ukraine in GOP Majority," *The Hill*, October 22, 2022, https://thehill.com/homenews/house/3694022-mccarthy-warns-no-blank-check-to-ukraine-in-gop-majority/.

⁴ Since Russia invaded Ukraine on February 24, 2022, U.S. aid to Ukraine has reached \$40.5 billion (as of June 27, 2023). "U.S. Security Cooperation with Ukraine," *U.S. Department of State*, June 27, 2023, https://www.state.gov/u-s-security-cooperation-with-ukraine/.

likely to favor Russia, putting Ukraine at the risk of losing the entire war.

THE GREAT POWER POLITICS BEHIND THE WAR

According to an investigation by the Washington Post, the premise of U.S. military aid to Ukraine is to avoid direct conflict between the United States and Russia and prevent Russia from escalating the war. Since the war started, aid to Ukraine among Western countries has varied based on the war situation. Germany and France seem to be more cautious, while the United States and the United Kingdom have showed a more supportive attitude. However, the overall stance of Western countries against Russia is similar, with the primary goal being to prevent the war from escalating and to avoid direct involvement.

The respective positions of Western countries are evident in their approach to providing main battle tanks to Ukraine. On January 15, 2023, the United Kingdom pledged to aid Ukraine with 14 Challenger II tanks, becoming the first country to provide heavy tanks at Ukraine's request. The move was tantamount to encouraging Western countries to provide military aid based on Ukraine's needs. Thus, Germany was under pressure to provide Ukraine with Leopard 2 tanks or allow other countries to donate the same tanks to Ukraine. After Germany agreed to aid Ukraine with Leopard 2 tanks on January 25, 2023, Chancellor of Germany Olaf Scholz said on February 5 that he had reached a consensus with Zelensky that the weapons provided by the West would only be used on Ukrainian territory, and Russia would not be attacked using these weapons. Scholz also emphasized that Germany closely coordinates with its allies and carefully weighs each batch of military aid to Ukraine to avoid escalation of the war. Hence, while Germany is one of the countries that primarily provide military aid to Ukraine, it often expedites delivery under pressure, especially when other allies have taken the lead. U.S. Secretary of State Antony Blinken revealed in an internal meeting on February 15, 2023, that the United States does not actively encourage Ukraine to retake Crimea. The current focus is on assisting Ukraine in making progress on the Eastern

⁵ Shane Harris, Karen DeYoung and Isabelle Khurshudyan, "Russia's Gamble: The Post Examined the Lead-up to the Ukraine War. Here's What We Learned," *The Washington Post*, August 16, 2022, https://www.washingtonpost.com/national-security/2022/08/16/ukraine-road-to-war-takeaways/.

⁶ Olha Hlushchenko, "There Is A Consensus' with Zelenskyy that Russian Territory Will Not Be Attacked with Western Weapons – Scholz," *Ukrainska Pravda*, February 5, 2023, https://www.pravda.com.ua/eng/news/2023/02/5/7387966/.

⁷ Ruairi Casey, "What's behind Germany's Hesitance over Leopard 2 Battle Tanks?," *Aljazeera*, January 24, 2023, https://www.aljazeera.com/news/2023/1/24/as-pressure-mounts-germans-remain-conflicted-over-leopard-tanks.

Ukraine battlefield. Retaking Crimea is considered a red line for Russian President Vladimir Putin, and any attempt by Ukraine to retake it could provoke a serious response from Russia.⁸ However, since Russia's annexation of Crimea in 2014, the United States and NATO have maintained that Crimea is Ukrainian territory, without taking any substantial action. While Blinken did not explicitly oppose Ukraine's recovery of Crimea, the United States' intentions are evident.

The opinions of Scholz and Blinken reflect the stance of most Western countries. While they are concerned about Russia's potential victory in the war, they also fear that the war could expand and escalate out of control. Western countries are also worried about Russian retaliation, so they provide military aid to Ukraine but limit the targets of the Ukrainian army to mitigate risk. The decision to provide advanced fighters to Ukraine is another example. On January 30, 2023, French President Emmanuel Macron did not rule out aiding Ukraine with fighters but laid out several prerequisites. These included Ukraine making a formal request, using the fighters only for defense without escalating the conflict, and ensuring that the military aid does not weaken France's own military force. Macron later announced on May 15 that France was preparing to train fighter pilots for Ukraine but ruled out delivering fighters to Kyiv. On the other hand, Biden refused to provide Ukraine with fighters at the beginning of the year, but at the G7 summit in Hiroshima on May 15, he stated that he had obtained a guarantee from Zelensky that the F-16 fighters provided by the West would not be used to attack Russian territory. The United States agreed to transfer the F-16 fighters to Ukraine through a third party. 10 Furthermore, most of the countries aiding Ukraine are European, reflecting the geopolitical considerations and fear of Russia by the donor countries. After all, if Ukraine were to be annexed by Russia, European countries would then directly face the threat of Russia.

China is another variable in the war. Prior to the war, China believed that Russia would quickly conquer Ukraine, and it declared that China and Russia are not allies, they are better than allies. The friendship between China and Russia has no limit, and there

⁸ Alexander Ward, Paul Mcleary, "Blinken: Crimea A 'Red Line' for Putin as Ukraine Weighs Plans to Retake It," *Politico*, February 15, 2023, https://www.politico.com/news/2023/02/15/blinken-crimea-ukraine-putin-00083149.

⁹ "Macron Says Will Not Rule Out Sending Fighter Jets to Ukraine," *FRANCE 24*, January 30, 2023, https://www.france24.com/en/europe/20230130-live-deadly-russian-shelling-targets-kherson-kyiv-calls-for-faster-arms-supplies; "Macron Says 'Door Is Open' to Train Ukrainian Fighter Pilots," *Le Monde*, May 15, 2023, https://www.lemonde.fr/en/france/article/2023/05/15/macron-says-door-is-open-to-train-ukrainian-fighter-pilots_6026784_7.html.

Emily Goodin and Nikki Schwab, "Biden Said Zelensky Gave Him 'Flat Assurance' That F-16 Fighter Jets Would Not Take Ukraine War to Russian Soil," *MailOnline*, May 21, 2023, https://www.dailymail.co.uk/news/article-12107953/Biden-said-Zelensky-assured-F-16s-not-war-Russia.html.

is no restricted area for cooperation. ¹¹ Although the development of the Russia-Ukraine War did not unfold as expected by China, and China was unwilling to publicly support Russia, it refrains from condemning Russia's invasion of Ukraine. China assists Russia by timely importing Russian energy and raw materials, thereby easing the pressure of Western economic sanctions on Russia. These actions clearly indicate China's covert support for Russia.

On February 24, 2023, China released a statement entitled "China's Position on the Political Settlement of the Ukraine Crisis" on the anniversary of the Russia-Ukraine War. 12 While this move seemed aimed at promoting a peaceful end to the war, the content reaffirmed Chinese leader Xi Jinping's previous stance on the Russia-Ukraine war. Notably, the statement referred to the ongoing conflict as the "Ukrainian crisis," demonstrating that China's position echoes Russia's narrative about the war. Although Russia expressed approval of China's statement on February 27, it clarified that the conditions for a peaceful resolution were not currently present. Russia insisted that conditions for a ceasefire would only be met when Ukraine recognized Russia's claims over the four oblasts (Luhansk, Donetsk, Zaporizhzhia and Kherson). Ukraine refuted the plan as it would only freeze the war and create a new demarcation line, unrelated to peace. Ukraine suggested that only it is eligible to initiate a peace initiative. Biden stated that China's proposal showed no signs of benefiting anyone other than Russia. NATO Secretary-General Jens Stoltenberg criticized China's mediation for having little credibility, and President of the European Commission Ursula von der Leyen pointed out that China's statement did not offer a new peace plan but rather a series of principles. China's peace plan proposal was nothing new; it merely reaffirmed previous statements and intended to use a neutral and peaceful stance to disguise its secret support for Russia. The reaction of major powers exposed the futility of China's actions and reinforced the perception that China is aligning itself with Russia.

From March 20 to March 22, 2023, Xi Jinping visited Russia at Putin's invitation. While China presented the visit as a trip focused on friendship, cooperation, and peace, the actions of both heads of state, as portrayed in their respective official media prior

^{11 &}quot;wai jiao bu: zhong e bu shi meng you sheng si meng you" [外交部: 中俄兩國不是盟友‧勝似盟友 Foreign Ministry: China and Russia Are Not Allies, But Better than Allies], *People's Daily Online* [人民網], October 22, 2021, http://world.people.com.cn/n1/2021/1022/c1002-32261779.html; "Совместное заявление Российской Федерации и Китайской Народной Республики о международных отношениях, вступающих в новую эпоху, и глобальном устойчивом развитии," *Президент России*, 4 февраля 2022, http://kremlin.ru/supplement/5770.

¹² "China's Position on the Political Settlement of the Ukraine Crisis," *Ministry of Foreign Affairs of the People's Republic of China*, February 24, 2023, https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202302/t20230224_11030713.html.

to the visit, indicate strong support from Xi Jinping for Putin. However, for political actions to have a substantial impact on the Russia-Ukraine war, they must translate into tangible material support, including potential military aid. This is precisely what Western countries are most concerned about.

Therefore, the Western camp has repeatedly warned China not to provide military aid to Russia. The United States has accused China of supplying lethal weapons to Russia, while the United Kingdom and France have also called on China not to provide any "material assistance" to Russia or its proxies at the Paris summit on March 10. China has consistently denied these accusations from Western countries. Western countries worry that Chinese military aid could alter the course of the Russia-Ukraine war and potentially escalate the conflict. Thus, they continue to deter China in order to prevent such military aid from occurring. However, it is uncertain whether China is willing to deplete its own stockpiles of arms and ammunition for Russia, especially considering the severe sanctions that may result. In any case, this highlights Western countries' belief that Chinese military aid to Russia could significantly change the current war situation and potentially escalate it. The future actions of China remain to be observed.

RUSSIA'S INTERNAL FACTORS

Putin's obsession with Ukraine is the main reason for Russia's "special military operation" against Ukraine, and it is also a crucial variable affecting the Russia-Ukraine war. In other words, if the Putin factor disappears, the Russia-Ukraine war may also change accordingly. This is why the outside world has been speculating on Putin's physical condition, and Putin is suffering from a fatal disease and may pass away soon. There are countless similar inferences, but most are speculation and exaggeration, and many even provoke division. Putin's will is indeed the key to whether Russia continues to fight or not, but it does not mean that the war will end if he cannot serve as President or dies suddenly. Furthermore, the presence of a successor for Putin has always been a matter of concern for the international community. If Putin is unable to serve as President or passes away suddenly due to physical factors, Russia may indeed cease fighting. However, the continuation of the war would still depend on the situation at that time, which can be divided into two different scenarios: one without a successor and the other with a successor.

If Putin does not designate a successor, and the Russian political situation falls into a power struggle due to the issue of succession, similar to the situation after the death of Vladimir Lenin and Joseph Stalin in the Soviet Union period, whether the war contin-

ues at this time is likely to become a political struggle issue. If the war situation is unfavorable at this time, Russia may agree to a truce; if the battle situation is favorable and the Russian army still can fight, continuing the "special military operations" against Ukraine while the succession situation is unclear may be the only option and consensus because it would be tantamount to political suicide if politicians decide to stop the war at this time.

If Putin has a designated successor, the war situation would be the key to deciding whether to cease the war, but the character of the successor and Russia's political situation are also variables. However, according to the political atmosphere in Russia, Putin may not have designated a successor at present, and at this stage, no one dares to consider himself a successor, and no one also wants to be identified as a successor. After all, this may not be beneficial to a politician and may lead to missed opportunities or assassination, because Putin does not allow others to challenge his authority. Therefore, "Who is Putin's real successor" is a variable that the outside world has no way of knowing, let alone the inferences of a truce derived from it.

In 2024, Russia will hold a presidential election. If Putin is unable to serve as President, he naturally won't run for reelection, and the development of the Russia-Ukraine War may follow the aforementioned speculation. If Putin's health condition allows, he is likely to run for reelection, and the progress of the Russia-Ukraine War will certainly be one of the variables affecting the presidential election.

For smooth re-election, Putin needs a victory. If the war situation is unfavorable and the Russian army retreats from the four occupied areas, it is possible that Putin will take extreme measures. In the event of a deadlock in the war situation, Russia's domestic political elite and public opinion may affect the direction of the war. Currently, the attitude of the Russian political elite towards the war is divided. The technocrats and middle-level officials in the military and security apparatus believe that the war should be first ceased, and military power and goals should be reassessed. The pro-war faction believes that the war should be won in 2023. However, the disagreement is unlikely to prompt Putin to cease fighting. To a certain extent, the struggle between the two factions will affect the Kremlin's decision-making on the direction of the war, and the war situation will indirectly affect the growth and decline of the two factions.

It is certain that the political elite must bear the blame for the unfavorable war situation and build a firewall for Putin. As for whether the war situation will affect the

¹³ Татьяна Становая "Три интриги для Кремля Чего ждать и чего бояться России в 2023 году" *Согред*ія

¹³ Татьяна Становая, "Три интриги для Кремля. Чего ждать и чего бояться России в 2023 году," Carnegie Endowment for International Peace, 23 декабря 2022, https://carnegieendowment.org/politika/88699.

subsequent presidential election or even bring about a truce, it will still depend on the overall situation at that time. The level of Western aid and the performance of the Ukrainian army will also be key factors affecting the combat situation.

CONCLUSION

Western "Ukraine Fatigue," great power politics and Russia's internal factors can be regarded as the key factors affecting the future development of the Russia-Ukraine War. What they have in common is that they are closely related to the war situation. Western "Ukraine Fatigue" caused by the stalemate of the war situation is steadily increasing. The degree of involvement of the great powers in the Russia-Ukraine War is related to the war situation. The war situation not only has a bearing on the divisions in Russia's internal attitude towards the war but will also determine Russia's future choice of continuing the war or seeking a truce. While the three key variables will be affected by the war situation, they will also influence the subsequent development of the war situation, thus there is a linkage among them. The future development of the Russia-Ukraine War will depend on the key variables mentioned above, and they deserve further observation.

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Dr. Shiau-Shyang Liou is an Associate Research Fellow at Division of National Security Research, INDSR. His research interests include Security Research, Russia & Eurasian Area Studies, Arctic Geopolitics, China's One Belt One Road Initiative (BRI).

Ж.

HOW TO CREATE A MORE EFFEC-TIVE ARMY: LESSONS FROM THE RUSSIAN-UKRAINIAN WAR

Yurii Poita

INTRODUCTION

The Russian-Ukrainian war has become a valuable source for military analysis and even revision of approaches, strategies and tactics of military operations. The assessments made earlier by Western capitals, based on the balance of military forces, and prediction the imminent collapse of the armed forces and the resistance of Ukraine as soon as it clashed militarily with Russia, have been shown to be well wide of the mark. The Armed Forces of Ukraine not only successfully resisted the Russian army, vastly superior in terms of numbers and weapons, but also demonstrated high-level ability to think and act proactively, unconventionally and creatively, in the face of a disruption of military and administrative control and logistics lines.

Russia's absolute advantage in aviation and missiles, navy, tanks, combat vehicles, artillery and ammunition was largely mitigated by Ukraine's approach to defense, which combined flexibility of management, decentralization, independence from high command, the use of a variety of tactics and means, and the integration of traditional and asymmetric tactics.

The unexpectedly fierce defense of Ukraine frustrated the plans of the Russian command, led to enormous losses in manpower and equipment by Russia, and forced them to retreat from the Kyiv and Chernihiv regions of Ukraine. Subsequently, thanks to the supply of Western weapons, Ukraine was able to successfully carry out a counter-offensive operation, liberating the Kharkov region and Kherson.

The purpose of this article is to analyze the aspects that improved the effectiveness of the Ukrainian army, the advantages of which neutralized the numerical and qualitative advantage of the Russian armed forces. Military analysts highlight a number of advantages of the Ukrainian army over the Russian one. The main ones are high morale on the battlefield, reconnaissance efficiency, flexibility and decentralization of command and control, high speed of decision-making, accuracy of artillery strikes, and initiative and non-standard thinking of junior and middle commanders. Now we can say that the factors that contributed to the achievement of these qualities include the principles of network-centric warfare, the leadership of junior commanders and high combat morale. Let us discuss in more detail these factors and their constituent components.

FACTOR 1 - NETWORK-CENTRIC WARFARE

Ukraine has successfully used the principles of network-centric warfare, which is a military doctrine or theory of war that aims to translate an information advantage, enabled partly by information technology, into a competitive advantage through the computer networking of dispersed forces. For its effective implementation, it is necessary to have reconnaissance means; control systems that will allow automatic or semi-automatic transmission of information to command posts and fire units; and precision fire systems.

Intelligence systems were provided with a large number of tactical UAVs, which were located in almost every platoon of the Ukrainian army, and made it possible to significantly increase the situational awareness of the military units. In addition, the availability of their own intelligence information at first hand made it possible to achieve high unit autonomy, and even independence from headquarters. Indeed, in conditions of war, the General Staff and army headquarters are oversaturated with information, part of the communication lines can be destroyed or disrupted and do not work, so management is difficult. Under these conditions, possessing their own reconnaissance means makes it possible for units to operate effectively in a rapidly

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¹ "Expert Pointed Out Advantages Of Ukrainian Army Over Russian Army," *Хартия*'97, October 21, 2022, https://charter97.org/en/news/2022/10/21/520890/; "Five reasons why Ukraine has been able to stall the Russian advance," *France 24*, March 8, 2022, https://www.france24.com/en/live-news/20220308-five-reasons-why-ukraine-has-been-able-to-stall-russian-advance; Christopher Morris, "Ukraine war: Russia's problems on the battlefield stem from failures at the top," *The Conversation*, September 14, 2022, https://theconversation.com/ukraine-war-russias-problems-on-the-battlefield-stem-from-failures-at-the-top-189916; СОНЯ САВИНА, "Какие слабости показала российская армия в Украине [What Weaknesses did the Russian Army Show in Ukraine]," *Важные истории*, April 13, 2022, https://istories.media/opinions/2022/04/13/kakie-slabosti-pokazala-rossiiskaya-armiya-v-ukraine/.

² According to the RUSI report Russian military had low tactical competence and lacks the strength of junior leadership. Mykhaylo Zabrodskyi, Jack Watling, Oleksandr V Danylyuk and Nick Reynolds, *Preliminary Lessons in Conventional Warfighting from Russia's Invasion of Ukraine: February–July* 2022 (2022).

changing situation.

A control system is needed to ensure fast transmission of target data. In Ukraine, back in 2017-2018, the tactical-level combat system "Kropyva" of its own design was introduced; it is designed to automate control systems at the level of battalion-company-platoon-separate piece of equipment.³ "Kropyva" helps to combine the means of reconnaissance, control and fire destruction of different units of the Armed Forces of Ukraine and the National Guard into a single information field. According to NATO classification, this system belongs to type C2 (command and control).

The "Kropyva" provides:

- Access to an electronic map of the area with the display of your own position on the GPS;
- Data exchange with other subscribers of the system: positions of allied units, coordinates of detected targets and short text messages;
- Solution of individual calculation tasks, such as calculation of a march, fire damage zone or artillery corrections;
- Ensuring interaction and data transmission in automatic mode from reconnaissance means - UAVs, radar and sound-measuring systems.

The use of the Ukrainian combat system made it possible to reduce the deployment time of an artillery battery by five times, the time to hit an unplanned target is reduced by almost three times, and the time to open counter-battery fire - by ten times. To work with the combat system, you need to know the coordinates of the target and the location of your artillery battery and weather conditions. This data is entered into the tablet with the "Kropyva" software, and the direction of fire and the distance to the target are calculated automatically. The system is quite simple to learn and can be installed on any tablet or smartphone. After installing the necessary software, the user can see a map of the area with their position on it. "Kropyva" also allows you to use data from rangefinders, sniper systems, weather stations or drones and provides integration and data exchange with radio stations or other users of the system.

Another necessary element in network-centric warfare is the availability of highspeed Internet connections. In the context of the destruction of mobile communica-

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³ Combat Management System of the "Kropuva" Tactical Unit in The Service of the Armed Forces, *Defense Express*, July 6, 2020, https://defence-ua.com/news/bojova_sistema_upravlinnja_taktichnoji_lanki_kropiva_na_slu-zhbi_zsu_ta_ngu_foto-1129.html.

tions towers in combat areas by the Russian armed forces, the Starlink satellite communications system of the American company SpaceX has been a game changer. The first Starlink terminals were activated on the territory of Ukraine on February 26, two days after the start of the full-scale war. According to the Minister of Digital Transformation of Ukraine Mykhailo Fedorov: Starlink helps us in our daily struggle on all fronts. Even if there is no electricity or the Internet, through the generators, with the help of Starlink, we will be able to restore any connection in Ukraine.

As of autumn 2022, about 20,000 Starlink terminals were activated in Ukraine, which made it possible to neutralize Russia's efforts to deprive Ukraine of mobile and Internet communications through missile, cybernetic and radio-electronic attacks. Russian efforts to disrupt SpaceX with cyberattacks, pinpoint the location of the Starlink terminals, and suppress their operation with the help of electronic warfare have so far been unsuccessful. The presence of a stable Internet connection allowed the Ukrainian armed forces to ensure effective C2 and implementation of network-centric warfare methods.

FACTOR 2 - LEADERSHIP OF JUNIOR COMMANDERS

The armed forces have traditionally been a very conservative and vertically oriented structure, in which discipline, unity of command, and strict execution of orders are key and indispensable elements. However, in a high-intensity war against a dominant enemy, orders from higher headquarters may be significantly delayed, or due to poor situational awareness of higher headquarters, be completely wrong. In this case, as the Russian troops' experience has shown, the troops lost the initiative on the battlefield, did not know what to do, suffered significant losses, and lost morale. Therefore, it is important for troops to learn to act autonomously, without waiting for orders from higher headquarters, guided by their own intelligence and the situation on the ground. Having one's own intelligence is a key element for taking the initiative, but it is important to teach junior and middle commanders to act without orders from above and take responsibility for themselves, and senior commanders must learn to delegate authority to junior ones. The underlying principle should be – "it is better to make the wrong decision than not to make it at all."

adapts command-and-control for Ukraine operations," Janes, March 7, 2022, https://www.janes.com/defence-news/news-detail/ukraine-conflict-russian-military-adapts-command-and-control-for-ukraine-operations.

⁴ **СОНЯ САВИНА**, "**Какие слабости показала российская армия в Украине**"; Christopher Morris, "Ukraine war: Russia's problems on the battlefield stem from failures at the top"; Tim Ripley, "Ukraine conflict: Russian military

In Ukraine, a striking example where a system of horizontal ties was formed is the Territorial Defense Forces, one of the reserve components of the Ukrainian armed forces. The territorial defense was established in January 2022 on the basis of the Law of Ukraine "On the Foundations of National Resistance," consisting of 25 brigades (one brigade per region of Ukraine), consisting of more than 150 battalions. One of the principles of the territorial defense forces is territoriality and dual subordination. Territoriality means that the brigade is responsible for its area from which volunteers are recruited. This allows for good situational awareness, as the locals have a good knowledge of the area in which their unit is located. In addition, they can quickly create a network of informants from among their friends and relatives living nearby, which gives them an intelligence advantage. The second principle is dual subordination: vertically to the military command, as well as to the military-civilian administration of a certain area. This allows you to establish logistics, supply, and support independent of the vertical military command and thus increase the autonomy and survivability of units. These principles, in turn, lead to greater initiative by commanders, and a willingness to operate effectively in isolation from the central command, relying on their own intelligence and logistics.

This can be described by the Mission Command approach, which empowers subordinate decision making and decentralized execution appropriate to the situation. Mission Command supports the Army's operational concept of unified land operations and its emphasis on seizing, retaining, and exploiting the initiative.

Mission Command is based on the following conditions:

- War is chaotic and uncertain;
- No plan can account for every scenario; plans must change rapidly during the mission to accommodate changing situations.
- Subordinate commanders often have a better understanding of what is happening during combat and are likely to respond more effectively to threats if they are allowed to make decisions and act on changing situations not considered in the original plan in order to achieve their commander's intent.
- Enemy forces may behave differently than expected, the route may become impassable, or units may expend supplies at an unexpected rate.⁵

Mission Command is an important means of implementing C2 and entails central planning but decentralized execution. Junior leaders understand the intentions of their

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⁵ Wade, Norman M. *BSS6: The Battle Staff SMARTbook* (The Lightning Press, 2020).

superiors and act in accordance with this intention without asking permission. This is sometimes referred to as "disciplined defiance". According to some data obtained during the discussions about C2 in Ukraine, the model of Mission Command up to and including the brigade has been implemented in the Armed Forces of Ukraine.

In addition to regular combat training, which ensures the implementation of the approach of Mission Command, the way to increase the leadership of junior commanders and reduce the Soviet vertical style of management is the introduction of special training courses organized by volunteers and civil society. For example, a few years ago, the public sector undertook to solve this problem: the Leadership Center of the Ukrainian Catholic University, together with the International Charitable Foundation «Come Back Alive», began to develop leaders in the military environment. Civilian specialists started to implement the program "Management and leadership in the military uni" for junior officers. In 2019, classes were held for 20 brigades, including 700 people - junior and senior commanders. The questions included the organization of effective management, task setting, delegation of authority, exercises and theoretical blocks about team building, negotiation, etc. Practice took 60-70% of the entire leadership and management program, and sessions were held every month with results of changes in behavior and commander approaches checked.⁶

In the same way, the role of sergeants was strengthened - they were given more authority and responsibility, and a program was organized for their training in leadership issues. On the basis of the 197 Training Center for the training of sergeants of the Ukrainian Army, training for a period of up to two months on management activities was organized. Classes were conducted by instructors with experience in combat operations and who underwent multi-level training, including under the guidance of foreign instructors. After the outbreak of full-scale war, Ukraine's NATO partners also organized a series of training courses for sergeants in leadership, which significantly improved the quality of C2 on the ground and provide an advantage over the enemy.⁷

Last but not least in terms of leadership has been successful civil-military integration. The mobilized and volunteers who joined military units, for the most part, had a higher education and had already established themselves as successful businessmen, engineers, and leaders. On the one hand, this became a challenge for regular officers

⁶ Людмила Кліщук, "Менеджмент для молодих командирів: як цивільні навчають військових бути лідерами [Management for Young Commanders: How Civilians Teach Military Leaders]," *LB.ua*, December 3, 2021, https://lb.ua/society/2021/12/03/500056_menedzhment_molodih_komandiriv.html.

⁷ "У Британії розпочалася підготовка молодших командирів ЗСУ [In Britain, the Training of Junior Commanders of the Armed Forces has Begun]," Укрінформ, October 5, 2022, https://www.ukrinform.ua/rubric-ato/3586250-ubritanii-rozpocalasa-pidgotovka-molodsih-komandiriv-zsu.html.

to prepare civilians for military service in a short time, and on the other hand, it forced conservative officers, accustomed to the unquestioning obedience of subordinates, to change their methods. The presence of seniors in age, social status and intellectually high subordinates, raised the bar for the leadership qualities of officers, forcing them to improve in order to ensure effective management. The old Soviet methods proved to be ineffective under these conditions, and the control system evolved and improved its performance.

FACTOR 3 - HIGH MORALE

According to the results of sociological surveys made before the full-scale invasion, the Ukrainians showed a high level of readiness to defend their Motherland with weapons in their hands. According to polls by the Kyiv Institute of Sociology in December 2022, 57.5% of Ukrainians are ready to resist, of which 37.3% are armed. This shows the high-level readiness of society for resistance and sacrifices for the sake of a free future, and on the other hand, the unity and solidarity of the Ukrainian nation.

After a full-scale invasion, the polls were confirmed by reality: queues at mobilization points and the reserve and territorial defense units, fierce resistance by the armed forces of Ukraine, and stoic resistance of Ukrainian society to Russian occupation. Moreover, after the first victories, morale soared – according to the results of a study by the "Sociological Group Rating" in March 2022, 80% of Ukrainians surveyed were ready to defend Ukraine with weapons in their hands; in February 2023 - 89% of Ukrainians were ready to continue the fight until the complete liberation of the occupied territories, despite Russia threatening to launch a nuclear strike on Ukraine.

In addition, the confidence and support of Ukrainians in state bodies has grown. In February-March 2023, 96% trusted the armed forces of Ukraine, 87% trusted volunteer units, 86% trusted the National Guard of Ukraine, 83% trusted the President of

⁸ Opinions and views of Ukrainians regarding Ukraine's relations with the West: results of telephone surveys conducted on February 14-22, 2023 and February 22-March 6, 2023, *Kyiv Institute of Sociology*, https://kiis.com.ua/?lang=ukr&cat=reports&id=1203&page=1.

⁹ "ЗАГАЛЬНОНАЦІОНАЛЬНЕ ОПИТУВАННЯ: УКРАЇНА В УМОВАХ ВІЙНИ (1 БЕРЕЗНЯ 2022) [National Poll: Ukraine at War (March 1, 2022)]," *Coціологічна група «Рейтинг»*, March 1, 2022, https://ratinggroup.ua/re-search/ukraine/obschenacionalnyy_opros_ukraina_v_usloviyah_voyny_1_marta_2022.html.

Tobias Bunde, Sophie Eisentraut and Leonard Schütte, "Auch bei russischem Nuklearschlag: 89 Prozent der Ukrainer wollen unter allen Umständen weiterkämpfen, Tagesspiegel [Even in the case of a Russian nuclear strike: 89 percent of Ukrainians want to continue fighting under all circumstances]," *Tagesspiegel*, https://www.tagesspiegel.de/internationales/auch-bei-russischem-nuklearschlag-89-prozent-der-ukrainer-wollen-weiterkampfen--bis-zur-ruckeroberung-der-krim-9299993.html.

Ukraine, and 74% trusted the Security Service of Ukraine. This confidence and support is also an element of successful resistance and defense.

At the moment, it can be assumed that the reasons for the maintenance of high morale by Ukrainians are the following factors:

First, the effective resistance of the Ukrainian armed forces and the performance of the military-political leadership of Ukraine. In the event of a quick defeat of Ukrainian troops, mass surrender and flight of Ukrainian leaders abroad, the consequences for national morale would have been catastrophic and Ukraine would most likely have capitulated. Therefore, it was important not to fall in the first days and weeks of the war, which in the future would make it possible to mobilize forces and society for steadfast defense.

Secondly, post-material values are inherent in Ukrainian society. This was vividly demonstrated by the Orange Revolution of 2004 and the Revolution of Dignity in 2013, when Ukrainian society protested against blatant injustice (in 2004 due to massive election fraud, and in 2013 due to the government's harsh crackdown on a peaceful demonstration). The readiness for self-sacrifice for the sake of post-material values probably became the element that cemented Ukrainian society in 2022 and allowed the people it to oppose brutal aggression.

Thirdly, the war is perceived by Ukrainian society as existential, a war for the survival of the nation. Everyone understands that in the event of a military defeat, not only will the state collapse, but also the nation, with its rich and centuries-old history. Russia, carrying out genocide on the territory of Ukraine, erasing everything Ukrainian, carrying out mass deportations of Ukrainians from the occupied territory, is trying to destroy the very essence of Ukraine, which is unacceptable to its citizens.

Fourth, Ukrainian leaders have established very effective communication with their people. President Volodymyr Zelensky's daily addresses to the nation have become an effective communication channel, a platform for exchanges between the government and society, a core element of people's trust in the leadership. Zelensky's regular posts inspire confidence, loyalty, hope and high morale. The vitality of the digital infrastructure, and in particular Starlink, has become important, providing real-time communication between the government and the people.

Fifth, the war became a trigger for the development of patriotic musical works,

¹¹ Інна Андаліцька, "Кому українці довіряють найбільше: результати опитування (інфографіка) [Who do Ukrainians trust the most: survey results (infographic)]," *UNIAN*, March 15, 2023, https://www.unian.ua/society/reyting-doviri-v-ukrajini-rezultati-svizhogo-opituvannya-ta-infografika-12180378.html.

which became the basis of optimism, humor, national resilience, unity and Ukrainian identity. The song "Oh, the Red Viburnum in the Meadow," performed by the leader of the Boombox group Andriy Khlyvnyuk with a machine gun in his hands against the backdrop of St. Sophia in Kyiv, became a hit and aroused tremendous interest in Ukraine and its diaspora in the West, significantly strengthening international support for Ukraine. In this regard, other symbols of Ukrainian resilience and victory played a big role: the "Russian warship" stamp, "Dog Patron," Bayraktar and others inspired millions.

CONCLUSION

The effectiveness of the actions of the Ukrainian army and defense as a whole was achieved due to a number of factors that had a multiplier effect and increased flexibility and survivability. In this sense, an integrated approach is needed, since some factors automatically affect others. For example, the presence of drones makes it possible to ensure effective reconnaissance of tactical units, apply the principles of network-centric warfare, strengthen the leadership of commanders, achieve qualitative advantages on the battlefield, thus ensuring military victories, saving the lives of soldiers, and maintaining high morale.

The second conclusion is the strengthening of Ukrainian defense through active and effective civil-military cooperation. Courses organized by volunteers, aimed at developing leadership in the army, made it possible to improve the leadership qualities, initiative and flexibility of junior commanders, which made it possible to form a more effective army compared to the Russian invaders. The influx of civilians into the army, especially in the territorial defense units, made it possible to create an intellectual core that effectively introduced new technologies, made it possible to reduce the conservatism of the military, increase its flexibility, and made defense the concern of the whole nation.

Thirdly, the activities and post-material values of society, the understanding that the defense of Ukraine is a top priority for Ukrainians, effective communication between the authorities and the people, the use of cultural and symbolic symbols of Ukrainian victory, have significantly increased the resilience of Ukrainians.

In this regard, the following recommendations can be made to improve combat capabilities of Taiwan: provide units with automatic C2 systems with all the necessary components, including the integration of intelligence; review the system of combat training of service personnel, and if necessary, include issues of leadership development of junior and middle commanders, as defined in the Mission Command concept;

create conditions and ensure effective military-civilian interaction that will enhance the capabilities of the armed forces, promote high morale and ensure the implementation of the concept of total defense.

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Mr. Yurii Poita is Head of the Asia-Pacific Section at the Center for Army, Conversion and Disarmament Studies (CACDS) in Kyiv and Asia Section at the New Geopolitics Research Network (NGRN), European China Policy Fellow at Mercator Institute for China Studies (MERICS, Germany). Since October 2022, he has been working as a Visiting Research Fellow at the Institute for National Defense and Security Research. Yurii Poita specializes in China's influence in the post-Soviet space, Ukrainian-Chinese relations, China's factor in Russian-Ukrainian war, hybrid and conventional warfare

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