

THE IMPACT OF THE CONFLICT IN UKRAINE ON TRADE AND MARITIME TRANSPORT. THE NEGATIVE EFFECT ON THE LABOR MARKET FOR MARITIME PERSONNEL

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Abstract. The conflict in Ukraine has continued for more than two and a half years and brings global negative consequences in several aspects. Apart from the typical adverse effects on international relations, this conflict also has a negative impact on trade, maritime transport, and the global labor market for maritime personnel. The affected Ukrainian state is a regional maritime power and a global wheat supplier. The other conflict participant is Russia, a global exporter of raw materials and a country with a developed maritime commercial fleet. The direct negative effects include grain supply disruption and reduced maritime transport availability. Traditional maritime personnel from both countries face restrictions in their professions for various reasons, impacting the global maritime fleet and the European Union's personnel supply. It will take many years to overcome the negative consequences of the conflict, and during this time, we must focus on seeking alternative solutions to the problems.

Keywords: maritime transport; maritime personnel; global trade; supply; demand

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1. Introduction

As a result of the conflict in Ukraine, trade and logistics in Ukraine and the Black Sea region are being severely hampered. The need for land and maritime transport infrastructure and services has significantly expanded because of the quest for alternative trade channels for Ukrainian commodities.

Numerous commodities now must be procured from further away to meet the requirements of Ukraine's trading partners. Both the demand for vessels worldwide and the cost of delivering goods there have increased because of this.

Given that the Russian Federation and Ukraine play a prominent role in the agrifood markets and that grains are connected to the alleviation of poverty and the assurance of food security, grains are a particular source of worry.

The crisis in Ukraine has worsened this tendency and reversed a temporary reduction in shipping prices. Since the year 2020, grain prices and shipping costs have been on the rise, but the war in Ukraine has reversed this trend (UNCTAD, 2022b). Between February and May of 2022, there was a nearly sixty percent increase in the cost of transporting dry bulk items like grains than there was previously (UNCTAD, 2022b). An increase in grain prices and freight rates simultaneously would result in a nearly four percent increase in the prices of food being purchased by consumers worldwide. Almost half of this impact can be attributed to the increased expenses of transportation (UNCTAD, 2022b).

Fuel and fertilizer are essential inputs for farmers worldwide, and the Russian Federation is a major player in the global market for both components. Disruptions in their supply can result in reduced grain yields and higher prices, which can have severe repercussions for global food security, particularly in nations that are fragile and dependent on food imports (Atanasova, 2023; Conev & Dimitrakiev, 2023).

Furthermore, the Russian Federation is a significant supplier of both oil and gas. (IEA, 2022). The cost of oil and gas has increased because of the need to rely on alternative sources of supply, which are frequently located in more remote areas. This is because trade restrictions and logistical problems have been presented.

Increasing energy costs have resulted in increased pricing for marine bunkers, which has increased shipping costs across all industries. The average global price for very low Sulphur fuel oil (VLSFO) had climbed by about 60 percent by the end of May 2022 compared to the beginning of the year. This increase occurred in comparison to the original price (Ship & Bunker, 2024).

When taken as a whole, these increasing expenses suggest that consumers will pay higher prices, which threatens to exacerbate the gap between levels of poverty.

A sophisticated network of ports and ships that connect the world is essential to the functioning of global trade (Dimitrakiev et al., 2023). Assuring that Ukrainian ports are accessible to international shipping and maintaining collaboration among many players in the transportation sector to continue providing services is necessary to facilitate a more seamless flow of global trade. There is also a need to investigate other modes of transportation. Also, there should be an increase in the amount of support provided to the economies that are the most susceptible, as well as investments in transportation and trade facilitation (UNCTAD, 2022a).

2. Effects of the conflict in Ukraine on international shipping

It is expected that the ongoing supply chain challenges, harbor congestion, and crew issues resulting from the Covid-19 pandemic will be exacerbated by the war. The conflict has led to significant disturbances in global shipping.

The maritime sector has been affected in various ways, including casualties and the loss of vessels in the Black Sea, the disruption of trade involving Russia and Ukraine, and the escalating burden of sanctions, among other factors. Furthermore,

the industry faces challenges that emerge in daily operations, such as the secondary effects on crew members, the expenses and accessibility of bunker fuel, and the rising danger of cyber threats.

As stated by the Global Head of Marine Risk Consulting at AGCS, even with the unfortunate circumstances in Ukraine and the dangers faced by seafarers involved in the conflict, the immediate effects on shipping related to the war in Ukraine have primarily remained limited to the Black Sea (Allianz Global Corporate & Specialty, 2022). The ongoing conflict in Ukraine presents significant dangers to seafarers; this situation is exacerbating the challenges faced by the maritime industry. The sector is already grappling with persistent supply chain disruptions, port congestion, and a crew shortage stemming from the pandemic (Allianz Global Corporate & Specialty, 2022).

The International Monetary Fund cautioned that the ongoing conflict in Ukraine will lead to even higher shipping costs this year, with the possibility of these elevated prices persisting for an extended period, resulting in an inflationary effect (Carrière-Swallow et al., 2022). In the 18 months following March 2020, the price of shipping a container across global transoceanic trade routes surged by seven times, while the expenses for shipping bulk commodities rose even more significantly (Carrière-Swallow et al., 2022).

Trade with Russia and Ukraine will face challenges, adding to the already strained global supply networks (Shipping Industry Reports, 2022). Sanctions and reduced trade with Russia may lead to shifts in supply chains and trade routes over the long term; however, this transition requires time and incurs costs (Shipping Industry Reports, 2022).

The most significant effects of the conflict up to this point have been felt by vessels that are engaged in commerce with Russia or that operate in the Black Sea. As a result of the battle and the Russian naval blockade of Ukraine, the major ports of Ukraine, notably the port of Odesa, were inaccessible to travelers (Dimitrakiev & Gilev, 2021). Over seventy percent of the nation's exports are shipped out, such as ninety-nine percent of its grain exports (Aarup et al., 2022). As a result of being unable to leave their warships or return home, thousands of Russian and Ukrainian crews were forced to face an uncertain future. Hundreds of vessels were unable to leave ports or arrive at their destinations.

Furthermore, Russian ships have been restricted from accessing ports in the UK and EU, and they have been held due to alleged sanction breaches (Allianz Global Corporate & Specialty, 2022). In February 2022, French naval vessels captured the Russian roll-on/roll-off cargo ship *Baltic Leader* while it was headed for St. Petersburg. Additionally, over a dozen superyachts owned by Russians have been confiscated (Allianz Global Corporate & Specialty, 2022).

There has also been a refusal to provide the Russian Navy with access to essential maritime services. Several ports have stopped providing bunkering services

to vessels that are owned or flagged by the Russian government. Additionally, engine manufacturers, maintenance businesses, classification societies, and insurance companies have announced that they will no longer provide services to Russian vessels.

A knock-on effect is also being caused by the conflict for shipping that is taking place outside of the conflict zone. Shipping businesses and insurance companies face a severe compliance burden because of sanctions imposed by the United States and the European Union (Sonnenfeld, J. & Yale Research Team, 2024). Many Western companies have chosen to voluntarily cease operations in Russia, leading to a complex and unclear legal landscape for contracts, particularly in the realm of insurance (Race & Hooker, 2022; Sonnenfeld, J. & Yale Research Team, 2024).

A prolonged conflict is likely to lead to more substantial economic and political consequences, which could possibly alter global trade in energy and other goods. An extended embargo on Russian oil may result in an increase in the cost and availability of bunker fuel, which might prompt shipowners to switch to alternative fuels.

The Global Product Leader Marine Hull at AGCS notes that ship owners have begun to inquire about the use of non-compliant bunker fuel that has a lower explosive temperature (Allianz Global Corporate & Specialty, 2022). Bunker fuel is a type of fuel that does not comply with regulations. It is possible that, in the longer term, there could be a scarcity of bunker fuel, which will force an increasing number of vessels to use fuels that do not comply with regulations or that are not up to standard. This could lead to claims for mechanical breakdown in the future.

According to Khanna, the war will, at some point or another, have an impact on a significant portion of the maritime industry (Allianz Global Corporate & Specialty, 2022). Besides the physical dangers to shipping in and near the Black Sea, caused by mines and missile strikes that are impacting trade, the accessibility and pricing of bunker fuel, along with the safety and well-being of crew members, have led many container firms to withdraw from Russia. At the same time, the tanker industry is encountering significant limitations and disturbances, as are bulk and general cargo operators managing Russian coal, wood, and grain (Allianz Global Corporate & Specialty, 2022).

The continued supply and demand challenges for shipping are compounded by the Ukraine conflict, which coincides with the breakouts of the COVID-19 virus in China. Consequently, port congestion, increased freight fees, and longer transit times have been seen. According to Clarkson's Research International Union of Marine Insurance, disturbance to global logistics and supply chains remains extensive and the congestion at ports caused by container and car carriers is on the verge of reaching previous highs (International Union of Marine Insurance, 2022). Additionally, the effects of the war are anticipated to cause additional inefficiencies throughout the maritime transportation system (International Union of Marine Insurance, 2022).

Alternate trade routes can be used to lessen the impact of conflicts in Ukraine. Ships can be rerouted through secure sea lanes, such as the Mediterranean, using ports like Istanbul and Piraeus, unaffected by the conflict. Another option is to use land routes through Poland, Hungary, and Slovakia, bypassing conflict zones. Ports in Romania (e.g., Constanța) and Turkey (e.g., Mersin, Samsun) have become essential for redirecting goods, especially agricultural commodities that used to pass through Ukrainian ports. These alternative routes provide more stability but require additional logistical assistance due to increased costs and capacity constraints. They serve as effective temporary solutions until normal operations resume in the Black Sea.

3. In a conflict zone, vessels and their crews are stuck

There were a great number of merchant vessels that were stranded in Ukrainian ports in the Black Sea and the Sea of Azov as of the beginning of April 2022. Additionally, vessels throughout the wider region were in danger of being detained, as well as in danger of being attacked by rockets and sea mines.

According to news publication by Reuters, there were roughly 2,000 sailors who were trapped onboard 94 ships in Ukrainian ports at the beginning of the conflict (Saul, 2022c).

There were 84 merchant ships still in operation as of the 20th of April 2022, and roughly 500 sailors were on board (Allianz Global Corporate & Specialty, 2022). There have been approximately 1,500 seafarers who have been repatriated so far, with manning levels being decreased and local shipkeepers being engaged to replace crew (Allianz Global Corporate & Specialty, 2022). Additionally, some ships are currently in cold lay-up with no crew working on board. For those still alive, the International Maritime Organization (IMO) has urged the immediate development of a blue safe maritime corridor. This corridor would allow seafarers and ships to be evacuated from high-risk and affected locations in the Black Sea and Bay of Azov. On the other hand, it is not always clear whether it will be safe for vessels to go (International Maritime Organization, 2022).

At the beginning of April 2022, the North Atlantic Treaty Organization (NATO) issued a warning that the ongoing risk of collateral damage or direct impacts on merchant ships in the Black Sea was considerable and that it was impossible to rule out the possibility of harassment and diversion of shipping in the region (NATO's Allied Maritime Command, 2023). Additionally, it was stated that drifting mines in the northern, western, and southwestern regions of the Black Sea posed a risk to shipping navigation (NATO's Allied Maritime Command, 2023).

In the first month of the conflict, there were at least eight attacks on merchant vessels that took place in Ukrainian ports and in the Black Sea (Allianz Global Corporate & Specialty, 2022). According to Panama's Maritime Authority, three cargo ships on the Black Sea were targeted (Garrison, 2022). These ships were

the *Namura Queen*, *Lord Nelson*, and *Helt*, all of which were owned by Japanese companies. Two members of the crew were killed when the *Helt* sank off the coast of Odessa, most likely after colliding with a mine (Allianz Global Corporate & Specialty, 2022).

An attack on a Bangladeshi cargo ship that took place at the port of Olivia in Ukraine resulted in the death of one of the ship's crew members (Saul & Paul, 2022). The sinking occurred shortly after the attack. The chemical tanker *Millennial Spirit*, which was flying the flag of Moldova, and the bulk carrier *Yasa Jupiter*, which Turkey owned, were also targeted (The Straits Times, 2022).

As a result, there is a possibility that the conflict will spread. Within the waters of Turkey and Romania, stray sea mines have already been discovered, and it is possible that assets belonging to the Russian Federation and Ukraine could be targeted outside of the conflict zone (Kucukgocmen & Hayatsever, 2024).

In April of 2022, the Joint War Committee of the London market expanded its high-risk recommendation to encompass all of Russia's waterways that were already included (Saul, 2022b). When approaching high-risk locations, vessels are required to notify their insurance and pay an extra rate for war coverage. Insurers declared Ukrainian and Russian waters around the Black Sea and Sea of Azov as high-risk regions after the invasion on February 24. They also labeled waterways close to Romania and Georgia as high-risk areas (The Maritime Executive, 2022).

4. There is the possibility of marine claims and coverage concerns

The situation in Ukraine is likely to cause uncertainty and legal issues for hull and cargo insurance policies, but the financial losses for marine insurance due to the conflict are currently minimal.

In the Black Sea and the Sea of Azov combat zones, the insurance industry is expected to face numerous claims for war-related damages to vessels from sea mines, rocket attacks, and bombings. Due to the Russian blockade, insurers may also face claims under marine war policies for vessels and cargo detained in Ukrainian ports and coastal waters.

Justus Heinrich, the Global Product Leader Marine Hull at AGCS, stated that the situation involving potential non-war claims in hull and cargo insurance from vessels involved in the conflict is more uncertain (Allianz Global Corporate & Specialty, 2022). Various potential scenarios can be anticipated in times of war, but forecasting the impact of non-war-related losses for vessels trapped in Ukrainian ports and the Black Sea is considerably more challenging. If these vessels remain stuck, they may face challenges related to safe navigation, crew management, maintenance, and salvage operations.

The legal interpretation challenges arise from non-war insurance claims that are difficult to determine as war-related damage or not. Hull or cargo insurance policies, including coverage irrespective of war, will be excluded from war risks.

However, in conflict zones like the Black Sea, incidents might be caused by indirectly related factors to these conflicts (e.g., machinery breakdowns, delays, or cargo deterioration), making it harder to determine what should be covered. Sanctions enforcement is further complicated because vessels and claims settlement may be impacted when vessels are detained or damaged by indirect war-related phenomena. This often leads to legal disputes as each side challenges exclusions and sanctions, resulting in messy disputes over which claims should be paid out under what circumstances. Different policy wording, obligations of the contract, and unique jurisdictions add to the complexity of these disputes.

Marine insurance policies exclude coverage for ship seizures or any physical damage resulting from war or hostile actions, such as damage caused by sea mines or attacks on vessels. On the other hand, most wise ship owners will obtain supplemental war insurance, which will cover such losses for a short period of time, often seven days, and for an additional cost. For the same reason, insurance companies cannot pay claims subject to fines.

In situations when insurers are unable to cancel hull and cargo insurance for impacted ships, there is still the possibility that coverage will be available for damage that is not due to war or machinery malfunction.

The Black Sea presents a challenging issue for shipping if vessels get stuck or halted. Even if ships manage to navigate out of the conflict area, they might be hesitant to use safe maritime routes or risk encountering sea mines. As ships stay confined for longer periods, it becomes increasingly challenging to carry out maintenance and ensure the well-being of the crew.

A great number of businesses, including insurance companies, have retracted from engaging in trade with Russia due to the legal and reputational concerns involved. Insurers, on the other hand, will be compelled to honor legal contracts until they are renewed; nevertheless, certain claims will be denied due to sanctions and war provisions, according to Heinrich (Allianz Global Corporate & Specialty, 2022).

As a result of the conflict or if a vessel is unable to leave the port, cargo that is either in storage or in route poses the risk of being damaged or abandoned. Ships or vessels that are ensnared because of sanctions may experience damage to their machinery or suffer damage because of fire, collision, or grounding.

Heinrich clarifies that resolving claims arising under hull and cargo regulations but not directly connected to warfare might be challenging due to intricate legal issues and policy interpretation (Allianz Global Corporate & Specialty, 2022). Sanctions, however, could potentially prohibit only a portion of an insurance claim rather than the entire amount. Insurance claims for vessels in distress could fall under either hull insurance or war insurance, depending on the particular circumstances.

Renewing may be challenging for ships affected by the conflict. For example, ships stuck in the Black Sea might need to pay extra to war insurers to keep their

coverage. This could become impractical if the conflict persists. Stranded vessels may also need to renew their hull insurance to maintain their coverage.

5. Disputes might make the shortage of staff much worse

There are also implications for the worldwide marine labor, which is already experiencing shortages as it emerges from the pandemic. The invasion of Ukraine causes these shortages to worsen.

After the beginning of the invasion of Ukraine, it was estimated that over 2,000 sailors were stranded on vessels in Ukrainian ports on the day of the attack (Allianz Global Corporate & Specialty, 2022). As a result of being trapped, crews are always at risk of being attacked, and they have limited access to food and medical supplies (Saul, 2022a). It is a tragedy that several crew members have already become victims of attacks (Allianz Global Corporate & Specialty, 2022).

The International Chamber of Shipping reports that just over 10% of the shipping industry's total workforce consists of Russian seafarers, while Ukrainian workers make up 4% of the workforce (SAFETY4SEA, 2022). This indicates that Russia and Ukraine are the countries of origin for a sizeable share of the world's 1.89 million seafarers (International Chamber of Shipping, 2022).

As a result of the suspension of many direct flights to Russia and the reduction in the number of boats that call at ports in Russia and Ukraine, it may be difficult for sailors from these countries to return home following the expiration of their existing contracts.

The sailors in the Black Sea are facing a very dangerous situation. They are either stuck on ships or in ports with dwindling supplies, and they are at risk of coming under attack. This has caused another setback for the shipping industry and global supply chains. Captain Rahul Khanna, Global Head of Marine Risk Consulting at AGCS, stated that crew levels have not yet returned to normal and, as a result, there is an increasing likelihood that a substantial number of Russian and Ukrainian seafarers will be unable to go back home or rejoin ship (Allianz Global Corporate & Specialty, 2022).

It is important to conduct crew changes regularly worldwide to ensure the continuous flow of seafarers (Dimitrakieva et al., 2023). The International Maritime Organization (IMO) and the maritime trade group BIMCO warned last year that without action to improve training and recruitment, there could be a significant shortage of officers within the next five years. Despite a shortage of 26,240 licensed officers in 2021, the survey projected a requirement for an extra 89,510 officers by 2026 (The International Chamber of Shipping, 2021).

6. The burden of compliance is increased by the ever-changing sanctions system

There is a significant difficulty in compliance posed by the variety of sanctions that have been imposed against Russian interests.

In the aftermath of Russia's invasion of Ukraine, Western nations have implemented a variety of sanctions targeting Russian businesses, financial institutions, and single individuals. Imports of Russian oil, gas, and coal have been prohibited to varied degrees by the United States of America, the European Union, and Australia. Furthermore, the European Union has implemented sanctions on Russian iron, steel, coal, cement, lumber, and luxury items. Additionally, Singapore put export curbs on technology and military exports to Russia, while Japan ceased exports of luxury automobiles and other commodities to Russia. Both actions took place in Asia.

A great number of businesses and shipping groups have reevaluated their willingness to engage in trade with Russia because of the reputational risk and the possibility of more sanctions (Dimitrakiev & Molodchik, 2018). Conversely, supply chains across multiple sectors, such as agriculture, electronics, and automobile manufacturing, rely on raw materials and components sourced from Ukraine and Russia. Additionally, certain sanctions policies do not cover specific products from these countries. A significant number of companies have entered into agreements with Russian firms that they are unable to cancel.

Strict enforcement action may be taken against those who violate sanctions; nevertheless, compliance is a complicated and ever-changing process. It is not always easy to determine who the ultimate owner of a vessel, cargo, or counterparty is (Khanna, 2022). The fact that sanctions are also applicable to many components of the transportation supply chain, such as banking and insurance, in addition to maritime support services, significantly increases the level of complexity associated with compliance. For instance, the United Kingdom and the European Union have prohibited reinsurers and insurers from providing coverage for the Russian aviation and space industries.

As stated by the Global Product Leader Marine Hull at AGCS, the sanctions framework presents a significant compliance risk for both shipping firms and insurers (Allianz Global Corporate & Specialty, 2022). Justus Heinrich is making this statement because this is a dynamic and complicated scenario that requires investigating each contract on an individual basis (Allianz Global Corporate & Specialty, 2022). Even though certain Russian firms are subject to sanctions, there are exemptions, and there may be several sanctioned parties within the supply chain, and in addition, there are difficulties associated with the problem of managing exposures and service claims in Russia (Allianz Global Corporate & Specialty, 2022).

7. Conclusions

The ongoing conflict in Ukraine has had a significant and multifaceted negative impact on global trade, maritime transport, and the labor market for maritime personnel. With disruptions in grain supply chains, increased shipping costs, and logistical challenges, the conflict has created an unstable environment for maritime

operations. The sanctions imposed on Russia have further strained maritime trade routes and reduced the availability of shipping resources, while also complicating legal and insurance issues for the industry. Furthermore, the conflict has worsened the already critical global shortage of maritime personnel, as both Ukrainian and Russian seafarers face employment challenges.

Considering these enduring disruptions, alternative solutions and long-term strategies are essential to mitigate the negative effects on global trade and maritime transport. Efforts must focus on diversifying trade routes, stabilizing the labor market, and ensuring the safe navigation of vessels. The road to recovery for the global maritime sector will be long and arduous, but with coordinated international efforts and investments, it is possible to alleviate some of the most pressing challenges and maintain the flow of essential goods across the world.

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