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Exploring the Visegrád-Russia Connection: Understanding the Political and Economic Ramifications of Sanction Policies Four Years Later (Essay 4: Defense & Dual-Use)

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Exploring the Visegrád-Russia Connection: Understanding the Political and

Economic Ramifications of Sanction Policies Four Years Later

Essay 4: Defense & Dual-Use

2018

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Introduction

As modern economies have grown and matured, one particular industry has arisen to become uniquely intertwined with national governments. This industry, the defense and dual-use sector, is a critical contributor to the ever-pressing topic of national security. In this essay, the fourth of six, we will turn our attention to this sector. Within the context of the 2014 Crimean Annexation/Invasion, the usage and transfer of goods within this industry is especially relevant. Following this event, and the simultaneous (and ongoing) violence in the Donbass region, the European Union (EU) and United States (U.S.) enacted multiple rounds of sanctions against Russia for their perceived role in the unrest. Of these sanctions, a number of defense and dual-use companies were named, as well as certain strategic products. Continuing with our theme of analyzing sectoral relationships between Russia and the V4 nations of Czechia, Hungary, Poland, and Slovakia, how significant of an impact have 2014 EU sanctions had on the health of V4 defense industries?

Within this essay, four aspects of this question will be explored. First, who is sanctioned and what products face export restrictions? Second, how is the Russian defense industry organized and what strategic shifts have been made since sanctions were implemented? Next, how are the equivalent V4 defense sectors structured and how have they been affected? Finally, what other significant EU defense sector actors and sanctions-related developments have occurred since 2014? By scrutinizing each of these questions, in turn, I aim to identify any significant shifts and dependencies in the V4-Russia defense relationship since the Ukrainian Crisis. In understanding the complex economic and geopolitical relationships between the V4 nations and Russia, leaders will be equipped to better develop an economic and defense policy that best protects national security interests.

Review of Defense-Related Sanctions

1. Overview of Western Sanction Policy & Significant Actors Targeted

In the aftermath of the 2014 Ukrainian Crisis, the U.S. and EU, along with several other Western nations, developed sets of economic and diplomatic sanctions to increase Russian costs related to perceived Russian involvement in the escalating situation. As touched on in previous essays (see *Essay 2: Energy* and *Essay 3: Financial Services & Governance*), economic sanctions target strategic Russian industries. The final sector affected by EU sanction policies is the defense and dual-use industry. Table 1 provides a concise overview of the most significant actors targeted.

Table 1. Significant Russian Entities Targeted by Western Sanction Policy

Name	Sector	Sanctioning Government(s)	Important Details
Almaz-Antey	Defense	EU, US	Anti-aircraft, used by separatists.
Kalashnikov Concern	Defense	EU, US	Major arms manufacturer.
United Aircraft Corporation	Defense	EU, US	
Uralvagonzavod	Defense	EU, US	Tank manufacturers.
NPO Mashinostroyeniya	Defense	US	Influential Cold War rocket-design firm.
Rostec	Defense	US	Includes subsidiary Rosoboronexport & Technopromexport.
Tactile Missiles Corporation	Defense	US	

Bold indicates an entity sanctioned by the EU.

Source: U.S. Executive Order 13662; European Council Decision 2014/512/CFSP, 2014/659/CFSP

Almaz-Antey and the other listed firms find themselves targeted due to the Western belief that they “materially or financially supported actions which undermine or threaten the territorial integrity, sovereignty, and independence of Ukraine” (1). As of September 12th, 2014, sanctioned entities are barred

¹ General Court of the European Union: “Judgment in Case T-255/15 Joint-Stock Company ‘Almaz-Antey’ Air and Space Defence Corp. v Council.”

from access to long term debt (defined as instruments exceeding 30 days in maturity) ⁽²⁾,⁽³⁾. Additionally, since that day, it is now illegal for Western firms to trade or collaborate with Russian firms specializing in dual-use and military goods. Stronger still, for Almaz-Antey and Technopromexport specifically, no business of any kind can be conducted with these companies. Important to note is that the provided list of sanctioned firms is not exhaustive, but only records the most significant actors sanctioned. A number of the firms sanctioned possess a large quantity of subsidiaries (especially in the case of Rostec), which also face the same capital financing flexibility difficulties. However, for the sake of brevity and clarity, these firms are not included ⁽⁴⁾. There are no strategic reasons for the existing differentiation between EU and U.S. sanctions.

While the Russian government owns a majority stake in some of the sanctioned firms, none of these actors are by definition a governmental entity, unlike the Russian Federal Security Service (FSB). The FSB, the successor of the KGB, is not explicitly named by 2014 sanction policies. Allegedly involved in the Crimean Annexation/Invasion and the maintenance of Crimea as a part of Russian territory, it is noteworthy that they are not named by 2014 Western sanction policies ⁽⁵⁾. However, they were later targeted by the U.S. for their involvement in the 2016 U.S. Presidential elections ⁽⁶⁾. To date, American transactions with the FSB may not exceed \$5,000 in a single calendar year. Also, American individuals and firms are not allowed to aid FSB investigations, do not have to comply with FSB rules, and cannot trade goods or provide services to the Crimean region ⁽⁷⁾.

One significant individual not included in Table 1 is Rostec director Sergey Chemezov, who is sanctioned by both the EU and U.S. He is rumored to possess a close personal relationship with Russian

² European Parliament, European Parliament Research Service, and Martin Russell: Sanctions over Ukraine: Impact on Russia

³ European Commission: Commission Guidance Note on the Implementation of Certain Provisions of Regulation (EU) No 833/2014

⁴ For a list of all sanctioned firms, please see: news.riskadvisory.net/sanctioned-individuals/

⁵ Nevar, Vitaly: Russia's FSB Says It Detained a Ukrainian Agent in Crimea

⁶ Pramuk, Jacob: Trump Administration Modifies Sanctions against Russian Intelligence Service

⁷ United States, Office of Foreign Asset Control: Executive Order 13694 of April 1, 2015, GENERAL LICENSE NO. LA: Authorizing Certain Transactions with the Federal Security Service

President Vladimir Putin dating back to 1980s in East Germany, when both were Soviet KGB officers ⁽⁸⁾. Sanctioned individuals, like Chemezov, face asset freezes and travel restrictions ⁽⁹⁾.

2. Defining Dual-Use Goods

In addition to the firms sanctioned, a number of dual-use goods now face export restrictions. For an intensive econometric analysis of the historical trade of these goods between Russia and V4 nations, please see *Essay 1: Econometric Analyses*. Table 2 lists these products, organized by Harmonized System (HS) trade code and aggregated at the 2-digit level.

Table 2. EU Sanctioned Products by HS Code

HS Code	Description
7304	Tubes, pipes, and hollow profiles, seamless, of iron (other than cast iron) or steel
7305	Tubes and pipes (e.g. welded, riveted, or similarly closed), internal and external circular cross-sections, external diameter of which exceeds 406.4mm, of iron or steel
7306	Tubes, pipes, and hollow profiles (e.g. open seam or welded, riveted, or similarly closed), of iron or steel
8207	Tools, interchangeable; for hand tools, whether or not power-operated, or for machine tools (pressing, stamping, punching, drilling etc.) including dies for drawing or extruding metal, and rock drilling or earth boring tools
8413	Pumps, for liquids, whether or not fitted with measuring device, liquid elevators
8430	Other moving, grading, levelling, scrapping excavating, tamping, compacting, extracting or boring machinery, for earth, minerals or ores, Pile drivers and pile extractors, Snow ploughs and snow blowers
8705	Special purpose motor vehicles; not those for the transport of persons or goods (e.g. breakdown lorries, road sweeper lorries, spraying lorries, mobile workshops, mobile radiological units etc.)
8905	Light-vessels, fire-floats, dredgers, floating cranes, other vessels; the navigability of which is subsidiary to main function; floating docks, floating, submersible drilling, production platforms

Source: Crozet and Hinz (2017)

While initially seeming to simply address products aligned with the energy industry, when aggregated at smaller 4-digit and 6-digit levels, certain products within these 2-digit levels are classified as dual-use goods.

⁸ Reid, David: US Sanctions Imposed against Russian Firms Cannot Succeed, Says Rostec CEO

⁹ BBC: www.bbc.com/news/world-europe-28400218

The consistent use of the term “dual-use” in EU sanction policy begs the question: what are “dual-use” products? Defined by the European Parliament, “dual-use” goods “are items, ‘including software and technology, which can be used for both civil and military purposes. These items include all goods, which can be used for both non-explosive uses and assisting in any way in the manufacture of nuclear weapons or other nuclear explosive devices’ (Article 2 (1), Regulation 428/2009)”⁽¹⁰⁾. Dual-use goods are involved in industries ranging from telecommunications, information security, energy, defense, security, aerospace, life sciences, chemicals, navigation, and electronics, among others⁽¹¹⁾. These goods are subject to additional trade requirements due to their military potential. International treaties such as the United Nations Security Council Resolution 1540 (2004), the Chemical Weapons Convention (1993) and the Biological Weapons Resolution (1972) provide governance for dual-use good trade. Additionally, particular international regimes like the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, the Nuclear Suppliers Group, and the Australia Group add further legal frameworks on top of the previously mentioned treaties⁽¹²⁾.

The Russian Defense Sector

1. Introduction to the Defense Industry in Russia

Before turning to the V4 & EU defense sectors, the structure and dynamics of Russian defense industry will first be explored. By understanding the sector, and how it has reacted to the implementation of sanction policy, I aim to underscore the size of the Russian industrial military complex and its global reach. First, a structural overview of the Russian defense industry will be provided. Next, noteworthy aspects of particular sanctioned Russian defense entities will be discussed. Last, strategic developments in the industry since the introduction of EU & U.S. sanction policy will be examined.

¹⁰ European Parliament, European Parliamentary Research Service, and Milan Remáč: Briefing, Implementation Appraisal: Control of Trade in Dual-Use Items

¹¹ European Commission, Directorate-General for Trade: Dual-Use Export Controls

¹² European Commission, Directorate-General for Trade: Dual-Use Export Controls

2. Market Structure

Of the six firms listed in Table 1, only four are targeted by EU sanctions: Almaz-Antey, Kalashnikov Concern, United Aircraft Corporation, and Uralvagonzavod. The preceding four, along with NPO Mashinostroyeniya and Rostec, also face U.S. sanctions. Together these corporations make up the largest players in the Russian defense sector. Table 3 provides summary statistics on these large firms. Kalashnikov Concern, as a smaller player in the market, is not included, despite being the maker of the well-known AK-47 assault rifle.

Table 3. Largest Russian Defense Firms Key Statistics (2016)

	Rostec (2015)	Almaz- Antey	United Aircraft Corporation	Tactical Missiles Corporation	Uralvagonzavod Corporation
<i>Defense News Largest Defense Companies Rank (2017)</i>	N/A	11	14	32	45
<i>Leadership</i>	Sergey Chemezov	Yan Novikov	Yury Slyusar	Boris Obnosov	Alexander PotaPov
<i>2016 Defense Revenue (US\$ Millions)</i>	\$7,808.37*	\$7,412.90	\$5,636.84	\$2,866.24	\$1,584.29
<i>Defense Revenue Growth % from 2015</i>	18%*	6%	21%	20%	56%
<i>2016 Total Revenue (US\$ Millions)</i>	\$15,616.74*	\$7,412.90	\$7,046.05	\$2,920.32	\$2,235.87
<i>% of Revenue from Defense Contracts</i>	50%*	100%	80%	98%	71%
<i>Sanctioned?</i>	Yes (U.S.)	Yes (EU, U.S.)	Yes (EU, U.S.)	Yes (U.S.)	Yes (EU, U.S.)

* The most recent Rostec data available is from 2015. Growth percentages are for total revenue growth from 2014-2015.

Source: Defense News Top 100 Defense Firms (2017), Rostec Annual Report (2015), AJTK Calculations

As seen, each of these firms generate large quantities of revenue. Rostec is by far the largest player in the market, with a 2015 total revenue of \$15,616,740,000, over double of the next closest company, Almaz-Antey. Additionally, despite the recent Russian economic downturn, each firm in Table 3 displays extremely high year-to-year growth rates. The reasons for this growth will be explained in following sections.

3. Significant Actors

a. Rostec

Rostec, the largest Russian defense firm by every significant metric, differs from other entities in the industry via its sheer size. Rostec, founded in 2007 and wholly owned by the Russian federal government, is a conglomeration of various civil and defense businesses (¹³). Rostec aims to increase the efficiency and profitability of their subsidiaries, in order that these subsidiaries may be privatized. The Rostec umbrella encompasses 23 strategic subsidiaries, along with sizable stakes in a number of other companies. Rostec's subsidiaries are involved in everything from helicopter, small arm, and missile manufacturing to bio-chemicals and financial services (¹⁴). Subsidiaries of Rostec operate in all 60 regions of Russia and provide services and goods to customers in more than 70 countries around the world (¹⁵). Looked at holistically, Rostec accounts for 70% of Russia's industrial defense base (¹⁶).

Of Rostec subsidiaries, Rosoboronexport, Technopromexport, and Russian Helicopters are among the most notable. These three companies are also subject to U.S. sanctions. Rosoboronexport, ranking #2 globally in arms exports, is an export-import firm specializing in the entire spectrum of military and dual-use goods, technology, and services. Products within their catalog include the entire line of MiG fighter jets, as well as tanks, submarines, ground-to-air missile defense systems, and small arms (¹⁷).

¹³ Reid, David: US Sanctions Imposed against Russian Firms Cannot Succeed, Says Rostec CEO

¹⁴ Rostec State Corporation: rostec.ru/en/about/companies/

¹⁵ 4-Traders.com: www.4-traders.com/KAZANSKIY-VERTOLETNYI-ZAV-9059305/news/Kazanskiy-vertoletnyi-zavod-OAO-Russian-Helicopters-names-Rostec-Deputy-CEO-Vladimir-Artyakov-as-C-17109694/

¹⁶ Tweed, David: Russia's Rostec Banks on Asia to Join Defense Elite

¹⁷ Rosoboronexport: roe.ru/eng/rosoboronexport/

Technopromexport, an energy engineering firm, has developed plans to construct thermal and gas power plants in Iran, Syria, and Crimea ^{(18),(19),(20)}. Technopromexport's plans to develop such energy resources within the Crimean peninsula are in direct violation of Western sanction policies. Russian Helicopters ranks globally as the #1 seller of military attack helicopters ⁽²¹⁾.

b. Almaz-Antey

Almaz-Antey, the second leading firm in the Russian defense industry, is structured similarly to Rostec. Both are conglomerates and controlled by the Russian government (albeit less directly for Almaz-Antey than Rostec). Almaz-Antey, most renowned for their ground-to-air missile defense systems, offers a wide variety of services and products to satisfy military needs worldwide. Almaz-Antey systems are likely to have been used by Ukrainian separatists to shoot down Malaysian Airlines flight MH17 as it flew over eastern Ukraine in July 2014, which killed 298 people ⁽²²⁾. In 2016 Almaz-Antey appealed the decision of the European Council to include them within the sanctioned firms list. On January 25th, 2017, the General Court of the European Union dismissed Almaz-Antey's action, and upheld their inclusion within EU sanctions. While the decision to maintain their sanctioned-status was not tied to the destruction of Malaysian Airlines flight MH17, the continued use of Almaz-Antey products by the Russian military, whom supports and supplies equipment to eastern Ukrainian separatists, was deemed a sufficient reason ⁽²³⁾.

¹⁸ Iran Business News: Tehran, Moscow Start Construction of Power Plant at Bandar Abbas

¹⁹ CNBC: www.cnbc.com/2018/02/02/reuters-america-russias-technopromexport-may-rebuild-four-syrian-power-plants--tass.html

²⁰ Shandra, Alya: Russia's Technopromexport Finally Admits Turbines in Occupied Crimea Are from Siemens

²¹ 4-Traders.com: www.4-traders.com/KAZANSKIY-VERTOLETNYI-ZAV-9059305/news/Kazanskiy-vertoletnyi-zavod-OAO-Russian-Helicopters-names-Rostec-Deputy-CEO-Vladimir-Artyakov-as-C-17109694/

²² General Court of the European Union: "Judgment in Case T-255/15 Joint-Stock Company 'Almaz-Antey' Air and Space Defence Corp. v Council."

²³ General Court of the European Union: "Judgment in Case T-255/15 Joint-Stock Company 'Almaz-Antey' Air and Space Defence Corp. v Council."

c. Kalashnikov Concern

Of firms within the Russian defense industry, Kalashnikov Concern enjoys an unmatched level of global brand awareness. Most of this is due to their notoriety as the creator and producer of the AK-47 assault rifle. Kalashnikov Concern, until recently, was a wholly owned subsidiary of Rostec. Beginning with a 49% privatization in 2013, Kalashnikov Concern became a majority-owned private company in November 2017. Kalashnikov Concern recorded a 2016 sales and profit of US\$ 308 million and 51 million, respectively ⁽²⁴⁾. Prior to sanctions, the United States was Kalashnikov Concern's largest market. However, with the loss of the American and European markets, and combined with the negative connotation of being sanctioned, Kalashnikov Concern has rebranded and sought opportunities in new markets.

4. The Turn to the East

Since being named by Western sanction policies, how have firms like Rostec and Kalashnikov Concern responded? Since July 2014, each sanctioned firm has made the same strategic shift – a focus on Asian markets. While previously maintaining significant market shares in European and American markets, especially in the case of Kalashnikov, these firms have increased their sales efforts towards underdeveloped nations in South and Southeastern Asia. Although such a strategy directly competes with Chinese efforts in the region, Russia's intensity to establish a significant market presence is logical. While not a market leader at this time due to said Chinese competition, Russian defense firms have found a receptive customer base thus far.

Viktor Kladov, Rostec's Director for International Development, in an interview on May 24th, 2017, outlined Asia as a key part of the firm's plan to become a global top five defense company within the next decade ⁽²⁵⁾. While not publicly finalized due to their nature, Rostec has aimed to soon complete

²⁴ Kramer, Andrew E.: Kalashnikov, AK-47 Maker, Goes Private as Russian Government Sheds Stake

²⁵ Tweed, David: Russia's Rostec Banks on Asia to Join Defense Elite

significant defense contracts with four Asian nations: India, Indonesia, Thailand, and the Philippines. Rostec plans to sell and deliver 200 Ka-226T attack helicopters, numerous Su-35 fighter jets, and four Mi-17V-5 transport helicopters to India, Indonesia, and Thailand, respectively. Furthermore, Filipino President Rodrigo Duterte has expressed an interest in closer collaboration with Rostec, as opposed to the traditional source of Filipino military goods – the U.S. ⁽²⁶⁾.

Kalashnikov Concern, who planned to open a U.S. production facility before Western sanctions were implemented, has found similar degrees of interest in South Asia. Kalashnikov Concern is now considering opening a production facility in India, and seeking a tender to open another facility in Pakistan. By shifting their strategic focus to Asia, Kalashnikov Concern doubled revenue from 2015 to 2016, to the tune of US\$ 300 million. They expected to double revenues again from 2016 to 2017. Alexey Krivoruchko, CEO of Kalashnikov Concern, explained that “the sanctions turned a civilian-focused company into a military one” ⁽²⁷⁾.

5. Conclusions

With our exploration of the Russian defense industry now complete, the strength and global reach of the Russian industrial defense complex is now clearly visible. Led by conglomerates like Rostec and Almaz-Antey, and supported by aircraft, missile, and small arms manufacturers (i.e. United Aircraft Corporation, Tactical Missiles Corporation, and Kalashnikov Concern), it appears that EU and U.S. sanctions have only strengthened the sector, via their year-to-year growth rates and strategic shifts. How does the size and market positions of these firms interact with the defense industries of V4 nations? Are V4 nations’ defense sectors highly reliant on the Russian firms for supplies, finished goods, and services? Have there been any significant value chain shifts or loss trade costs since the introduction of sanction policy?

²⁶ Tweed, David: Russia's Rostec Banks on Asia to Join Defense Elite

²⁷ Marson, James, and Thomas Grove: Kalashnikov Finds Success Even After U.S. Sanctions

The V4 Defense Sector

1. Introduction to the Defense Industry in the V4

How are the defense industries of Czechia, Hungary, Poland, and Slovakia structured? Does Russia play a major role in the private sector most tied to national security? By undertaking an exploration of these topics within the lens of the 2014 EU sanctions, answers to these pressing security questions shall be resolved in three parts. First, the Western defense industry will be introduced with how V4 nations fit within its paradigm. Second, a data-driven approach to historical trade trends between the V4 and Russian defense sectors will be explored. For the sake of ease, these first two sections of this chapter will focus on arms primarily, due to data availability and comparability. Third, brief V4 nation-specific case studies will be discussed to provide additional color to any uncovered topics of the V4-Russia defense relationship.

2. Western Defense Industry Overview

Prior to their accession into the EU in 2004, Czechia, Hungary, and Poland joined the North Atlantic Treaty Organization in 1999. Slovakia joined later, in 2004⁽²⁸⁾. It is through this lens that the defense sectors of the V4 must be viewed, having solidly moved into the Western and Transatlantic sphere of defense.

Of the existing trade between the EU and Russia, only a very small portion is within the defense and arms industry. Prior to sanctions, in 2012, direct EU-Russia defense and military trade only managed €193 million in total⁽²⁹⁾. However, the EU has historically maintained a much more robust trade of supplies and other parts (i.e. dual-use goods) than explicitly military goods. In 2013, total EU dual-use exports reached US\$ 26 billion, with Russia ranking as the #4 export destination for dual-use items the

²⁸ North Atlantic Treaty Organization: www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_07/20160627_1607-factsheet-enlargement-eng.pdf

²⁹ Bond, Ian, et al.: *Frozen: The Politics and Economics of Sanctions against Russia*

following year ⁽³⁰⁾, ⁽³¹⁾. Russia may find it difficult to find comparable goods without Western trade, whose nations specialize in advanced electronics, lasers, and other technologies ⁽³²⁾.

At a high level, trends in the global transfer of arms may better illustrate any EU-Russia trade ties for these industries. Arms in this context, as defined by the Stockholm International Peace Research Institute (SIPRI), includes aircraft, air defense systems, anti-submarine warfare weapons, armored vehicles, artillery, military engines, missiles, sensors, satellites, large military ships, and other large arms ⁽³³⁾. From 2012-2016, the five largest exporters of arms accounted for 74% of total arms exported globally. Respectively, the top five largest exporters were: 1) the U.S., 2) Russia, 3) China, 4) France, and 5) Germany. Together, the U.S. and Russia account for 56% of all arms exports ⁽³⁴⁾. Europe, on the rare occasion when they sourced arms from extra-EU destinations, consistently imported mostly from the U.S., not Russia, due to existing NATO relationships. The U.S. share of EU imports has increased during the last six years, with the United Kingdom, Italy, the Netherlands, Norway, and Denmark developing agreements for current and future shipments of F-35 fighter jets. Poland, of V4 nations, received its first U.S. shipment of long-range 68 AGM-158A missiles in 2016 ⁽³⁵⁾.

From 2012 to 2016, Russia only accounted for 5.9% of total European arms imports, with the bulk of Russian exports (68%) sent to Asia & Oceania. India, Vietnam, and China possess the three largest shares of Russian arms imports, with 38%, 11%, and 11%, respectively ⁽³⁶⁾. This nicely exemplifies Rostec and Kalashnikov Concern's post-sanctions Asia-focused strategies discussed in the previous section.

3. The Economics of Defense in the V4

³⁰ Morley, Jefferson: U.S., EU Sanction Russia's Arms Sector

³¹ European Parliament, European Parliamentary Research Service, and Milan Remáč: Briefing, Implementation Appraisal: Control of Trade in Dual-Use Items

³² Morley, Jefferson: U.S., EU Sanction Russia's Arms Sector

³³ SIPRI: www.sipri.org/databases/armstransfers/sources-and-methods/

³⁴ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

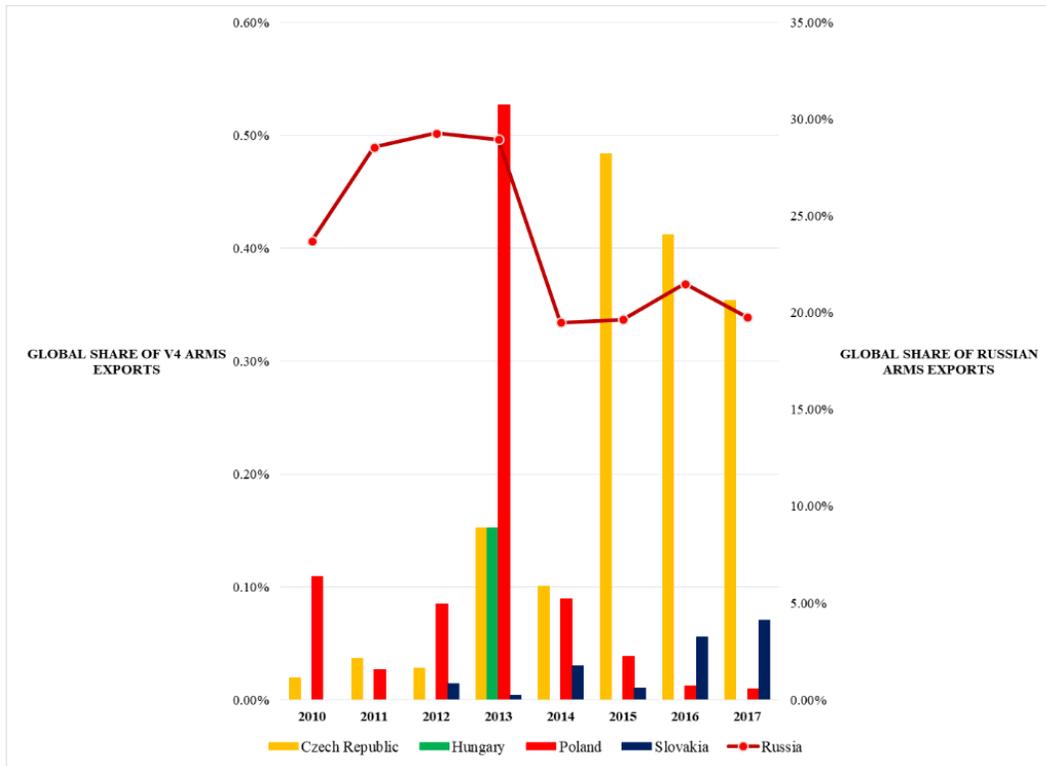
³⁵ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

³⁶ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

For Czechia, Hungary, Poland, and Slovakia, only Czechia (22nd) and Poland (25th) ranked within the top 25 of largest global arms exporters from 2012 to 2016. Iraq, Vietnam, and Nigeria ranked as the top Czech arms export destinations, with 48%, 14%, and 8.7% shares, respectively. For Poland, the U.S., Algeria, and the Philippines ranked as the top arms export destinations, with 66%, 9.8%, and 9.8% shares, respectively (37). On the import side, only Poland ranked within the top 40 global arms importers during the same time period. Germany (24%), Finland (20%), and Italy (16%) placed as their top 3 arms sources (38).

A massive gap exists when strictly comparing V4 countries to Russia in the global arms trade. Figure 1 demonstrates this for global shares of arms exports.

Figure 1. V4 & Russian Annual Global Share of Arms Exports (2010-2017)



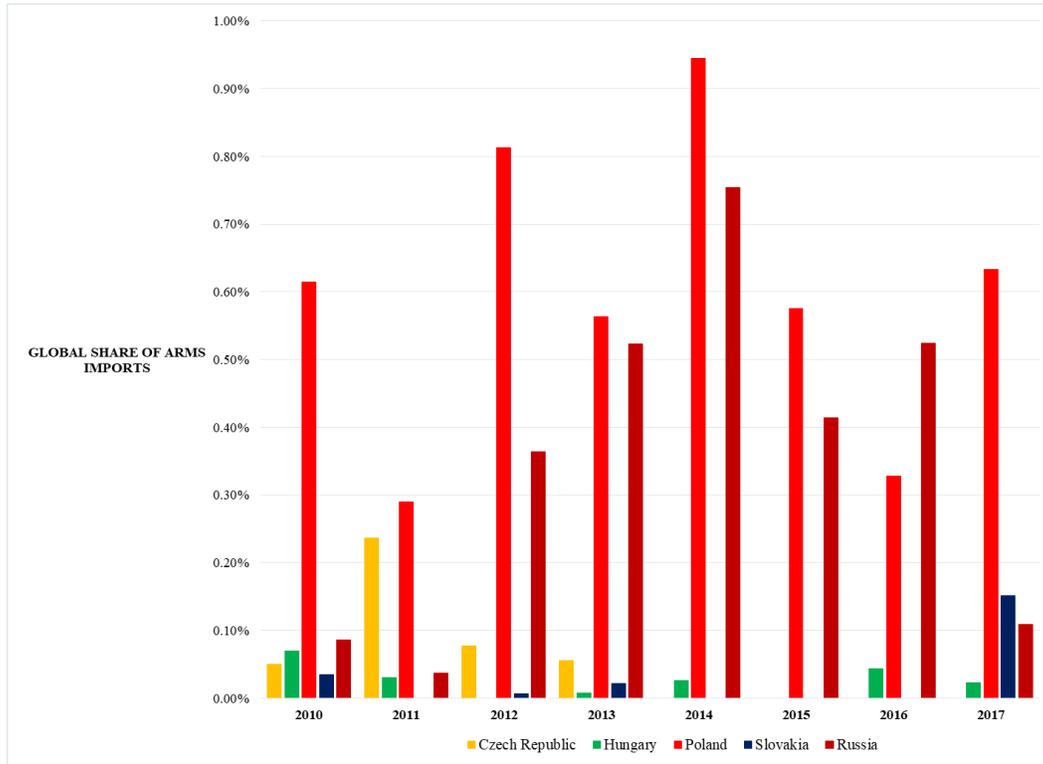
Source: SIPRI Arms Transfers Database, AJTK Calculations

³⁷ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

³⁸ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

From 2010-2017, no V4 nation records a global export share higher than 0.6%, while Russia consistently possesses a share of around 20% or higher. For Figure 2, looking at global import share, the figures are more comparable.

Figure 2. V4 & Russian Annual Global Share of Arms Imports (2010-2017)



Source: SIPRI Arms Transfers Database, AJTK Calculations

Despite the numeric comparability of import shares from 2010-2017, the global position of the Russian defense industry must be considered. With the second largest share of global exports from 2012-2016, Russia simply does possess a need to import a great deal of arms (³⁹). The Russian defense industry, led by Rostec and Almaz-Antey, is self-sufficient. In fact, they do not even rank within the top 40 largest importers of arms from 2012-2016 (⁴⁰).

³⁹ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

⁴⁰ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

By directly comparing the Russian share of V4 imports and exports, the lack of a trade relationship within this industry is even starker.

Table 4. Annual Russian Origination Share of V4 Arms Imports (2010-2017)

	Czechia	Hungary	Poland	Slovakia
2010	0.00%	0.00%	0.33%	0.10%
2011	0.00%	0.00%	0.16%	0.00%
2012	0.00%	0.00%	0.00%	0.00%
2013	0.00%	0.00%	0.00%	0.00%
2014	0.00%	0.13%	0.00%	0.00%
2015	0.00%	0.00%	0.00%	0.00%
2016	0.00%	0.00%	0.00%	0.00%
2017	0.00%	0.00%	0.00%	0.00%

Source: SIPRI Arms Transfers Database, AJTK Calculations

Table 5. Annual Russian Destination Share of V4 Arms Exports (2010-2017)

	Czechia	Hungary	Poland	Slovakia
2010	0.00%	0.00%	0.00%	0.00%
2011	100.00%	0.00%	0.00%	0.00%
2012	7.77%	0.00%	0.00%	0.00%
2013	4.26%	0.00%	0.00%	0.00%
2014	2.97%	0.00%	0.00%	0.00%
2015	0.00%	0.00%	0.00%	0.00%
2016	0.00%	0.00%	0.00%	0.00%
2017	0.00%	0.00%	0.00%	0.00%

Source: SIPRI Arms Transfers Database, AJTK Calculations

As Table 4 illustrates, no V4 country during the last seven years sourced more than 0.33% of their arms from Russia. For Table 5, only Czechia exported any arms to Russia from our 2010-2017 timeframe. 2011 demonstrates a notable outlier to the rest of the data, with 100% of Russian imported arms originating from Czechia. However, this is misleading as Russia imported 90% less arms in 2011 when compared to their historical average volume of imported arms from 2010-2017. Therefore, interpretation of 2011 Czech arms exports to Russia must be taken with great care.

4. Historical V4 Defense Industry Case Studies

a. Czechia

Turning to historical case studies of each V4 nation's defense industries, Czechia has historically been a major global arms player. As is the case for most Warsaw Pact countries, Czechia possessed a large industrial military complex during the Cold War due to the arms race. During this time, Czechia, then Czechoslovakia, ranked as the largest producer of training jet aircraft, with the Model L-39⁽⁴¹⁾. However, as the Cold War ended, and Czechoslovakia transitioned to a market economy, their defense industry significantly fell behind Western counterparts. To expand market potential, Czechoslovakia, and later Czechia, sought diversification and the development of dual-use technologies. Today, the Czech descendants of the previously state-owned defense sector is dominated by Aero Holding and Omnipol. Both firms possess significant state-ownership still⁽⁴²⁾. Since the end of the Cold War, there has been a conscious effort to shift away from an "arms race mentality" and reduce the economic dependence on the arms industry. While the Czech army has been dependent on Ukrainian and Russian carriers for transport crafts in recent years, the supply of this equipment can be sourced from NATO partners when needed. As evidenced by recent Czech difficulties to sell aircraft since the implementation of EU sanctions on Russia, previously a large purchaser, the Czech defense industry remains only a shadow of its Cold War self⁽⁴³⁾.

b. Hungary

During the Cold War, Hungary sourced most military products and services directly from the Russian Soviet Federative Socialist Republic of the Soviet Union, modern day Russia⁽⁴⁴⁾. Compared with other Warsaw Pact states, Hungary possessed a relatively small defense industry. In 1988, defense and military output represented 3% of industrial output. With the regime change, the defense industry's

⁴¹ Pike John: www.globalsecurity.org/military/world/europe/cz-industry.htm

⁴² Pike John: www.globalsecurity.org/military/world/europe/cz-industry.htm

⁴³ PSSI: Briefing Paper IV - Links to Russian Companies in the Defence Industry in the Czech Republic and the Wider Region; Danish and British Models for Foreign Direct Investment Screening

⁴⁴ Pike, John: www.globalsecurity.org/military/world/europe/hu-industry.htm

workforce was reduced from between 18,000-20,000 workers to between 1,500-1,600 workers ⁽⁴⁵⁾. Additionally, with the dissolution of the Soviet Union, the Hungarian defense sector lost its largest market. As of 2014, there were between 480-500 corporations, employing 1,726 workers, registered to engage in defense industry work. Of these corporations, only ~120 companies are directly involved in continuous defense sector work, with the others focusing more on the dual-use and technology industries. Smaller still, only 10-20 companies are truly significant players in the Hungarian defense sector ⁽⁴⁶⁾. Compared to American and other Western firms, these companies are comparatively small. Today, the Hungarian defense sector mainly engages with the defense industries of other NATO nations.

c. Poland

Similar to the Czech (Czechoslovakian) defense industry at the end of the Cold War, the Polish defense sector found itself technologically behind Western counterparts. Even today, the Polish defense industry struggles to bridge the technological gap, leaving them unable to purchase certain multi-purpose aircraft, tanks, and other goods ⁽⁴⁷⁾. Like Hungary, Polish defense companies are heavily focused on trade with NATO partners, especially via international associations (e.g. Western European Armaments Group) ⁽⁴⁸⁾. Poland possesses the largest V4 defense industry, in no large part due to their size advantage over Czechia, Hungary, and Slovakia. Polish Armaments Group (PGZ) is the successor of the Cold War era state-owned Polski Holding Obronny ⁽⁴⁹⁾. It employs over 19,000 workers and grosses over PLN 5 billion in annual revenue. PGZ is capable of satisfying 90% of domestic demand ⁽⁵⁰⁾. Additionally, each year Poland hosts the MSPO International Defense Industry Exhibition, the largest event of its kind in the region. The Polish defense sector is highly reliant on the American defense industry ⁽⁵¹⁾.

⁴⁵ Pike, John: www.globalsecurity.org/military/world/europe/hu-industry.htm

⁴⁶ Pike, John: www.globalsecurity.org/military/world/europe/hu-industry.htm

⁴⁷ Pike, John: www.globalsecurity.org/military/world/europe/pl-defense-industry.htm

⁴⁸ Pike, John: www.globalsecurity.org/military/world/europe/pl-defense-industry.htm

⁴⁹ Pike, John: www.globalsecurity.org/military/world/europe/pl-defense-industry.htm

⁵⁰ PSSI: Briefing Paper IV - Links to Russian Companies in the Defence Industry in the Czech Republic and the Wider Region; Danish and British Models for Foreign Direct Investment Screening

⁵¹ Pike, John: www.globalsecurity.org/military/world/europe/pl-defense-industry.htm

d. Slovakia

While the Czech portion of Czechoslovakia was a large arms producer prior to World War II, the Slovakian part of Czechoslovakia emerged as the national hub during the Cold War. In terms of people employed, the Czechoslovak defense industry peaked in 1988, with 140,000 people involved, whether directly or indirectly. From 1971-1988, Czechoslovakia was the 7th largest producer of defense and military goods in the world and 2nd largest producer in the USSR, only behind the Soviet Union (⁵²). However, following the regime change, output dropped by 90%. Today, Slovakia relies on Russia for supplies for purchased MiG-29 fighter jets, Mi-17 attack helicopters, and S-300 missile systems. Since the implementation of EU sanctions, Slovakia has shifted towards its NATO partners (⁵³). Similar to other V4 defense industries, the Slovakian defense sector has struggled since the end of the Cold War, and exists as only a fraction of what it once was.

5. Conclusions

Having now explored the dynamics of the Western defense industry, the ties between the V4 and Russia defense sectors (or lack thereof), and the historical background of each V4 nation's industrial defense complex, I conclude that there are few economic links between the V4 and Russia in this sphere. While Russia is the second largest exporter of arms globally, they only account for 5.9% of imported arms in Europe. Having shifted their focus to South and East Asian markets, Russia remains influential in the world, but simply does not possess a strong economic foothold within NATO countries. While Czechia and Poland's defense sectors place them among the 25 largest arms exporting countries, the industries are relatively small, with neither nation possessing over a 0.6% share globally (⁵⁴). When comparing the direct trade relationships between V4 defense industries and their Russian counterparts, the

⁵² Pike, John: www.globalsecurity.org/military/world/europe/sk-industry.htm

⁵³ PSSI: Briefing Paper IV - Links to Russian Companies in the Defence Industry in the Czech Republic and the Wider Region; Danish and British Models for Foreign Direct Investment Screening

⁵⁴ Fleurant, Aude, et al.: Trends In International Arms Transfers, 2016

lack of a connection is even more magnified. The annual Russian origination share of V4 arms imports has not exceeded 0.33% for any given year from 2010-2017.

Since the end of the Cold War, V4 defense sectors have experienced a severe recession. Reasons for this include the technological gap with the West and the loss of markets and demand reductions following the dissolution of the USSR, among others. As all members of the V4 further integrate politically and economically into NATO following the implementation of sanction regimes, there is little evidence to suggest any change in the economic relationship between the V4 and Russian defense industries.

Additional Considerations & Recent Updates

1. Dual-Use Sanctions in Action

Having explored the Russian and V4 defense sectors, and the connection (or lack thereof) between the two, there are still a few more topics that require our attention. The first of these topics regards examples of how sanctions on dual-use and military have been applied thus far. The second provides an update on the current state of arms and dual-use legislation.

Following the 2014 implementation of the EU sanction policy, there have been successes in restricting the export of dual-use and military products to Russia. The cancellation of trade contracts has resulted in large one-time loss revenue opportunities for a small number of European firms. While none of these firms have been V4-based, they are still worth noting. The largest of these canceled contracts belonged to Germany and France. In 2012, the German defense company Rheinmetall finalized a €100 million contract to provide the Russian military with a high-tech combat training center. Following EU sanctions, the German government blocked the export of goods and services tied to this contract (⁵⁵). Similarly, Thames, a French company, had a contract in place to deliver 331 infrared gun sights for use in Russian tanks. This contract, while agreed upon in 2007, also faced cancellation. There is limited public

⁵⁵ Bond, Ian, et al.: Frozen: The Politics and Economics of Sanctions against Russia

data on how many of these sights were actually delivered, but a number of Russian tanks in the Ukrainian Donbass region were seen outfitted with these products ⁽⁵⁶⁾. On the transatlantic side, the U.S. government canceled all existing contracts with sanctioned Russian company Rosoboronexport. A part of the now-canceled U.S.-Rosoboronexport contracts included the delivery of Russian Mi-17 attack helicopters for dual U.S.-Afghan use in the Middle East ⁽⁵⁷⁾.

One specific European-Russian military contract survived cancellation though. Signed in 2011, France agreed to provide Rosoboronexport with two *Mistral* amphibious assault ships. These ships were to be delivered in October 2014 ⁽⁵⁸⁾. With a total contract size of €1.2 billion, France faced cancellation and legal fees of more than €1 billion if this contract was not honored. Ultimately, the deal was exempted by EU leadership due to fears of future effects on the French defense sector, and the *Mistral* ships were delivered ⁽⁵⁹⁾.

2. Weaknesses in Dual-Use Trade Controls

While a number of arrangements exist that dictate how dual-use goods are traded, the current legislation contains a number of weaknesses that could affect the ability to enforce sanction policy. For the EU, determining how to regulate the trade of dual-use goods is a pressing need not just to ensure an effective sanction policy, but also for general trade purposes. Without the appropriate governmental authorization, dual-use goods cannot leave the EU customs territory ⁽⁶⁰⁾. In recent years, the EU has expanded their definition of what constitutes “dual-use” goods. Broadened, this definition affects many more sectors and actors than in the past, such as, but not limited to, brokers, suppliers, transport and distribution providers, and research institutes ⁽⁶¹⁾. The expansion of this definition is partly in reaction to

⁵⁶ Bond, Ian, et al.: Frozen: The Politics and Economics of Sanctions against Russia

⁵⁷ Morley, Jefferson: U.S., EU Sanction Russia's Arms Sector

⁵⁸ Morley, Jefferson: U.S., EU Sanction Russia's Arms Sector

⁵⁹ Bond, Ian, et al.: Frozen: The Politics and Economics of Sanctions against Russia

⁶⁰ European Parliament, European Parliamentary Research Service, and Milan Remáč: Briefing, Implementation Appraisal: Control of Trade in Dual-Use Items.

⁶¹ Bauer, Sibylle, et al.: CHALLENGES AND GOOD PRACTICES IN THE IMPLEMENTATION OF THE EU'S ARMS AND DUAL-USE EXPORT CONTROLS

the fear of growing internationalization in the sector. Understandably, the European Parliament aims to ensure European independence and security of goods and services with military applications. It would not be desirable for a portion of the supply chain of critical goods to be operated or owned by an enemy power.

However, in attempting to avoid this, and ensure the security of the supply of European dual-use goods and research, the definition of “dual-use” has not been appropriately clarified and specified. Therefore, while expressing a desire to reduce the burden of compliance, the EU has instead increased it⁽⁶²⁾. The weight of compliance changes per firm and group, as it is dependent on the sector, product, and export destination⁽⁶³⁾. Many firms, newly involved in the dual-use market, struggle to comply, not out of a wish to avert the law, but simply due to the difficulty of interpreting the existing EU legislation. The European Parliament admits to the difficulties involved in developing dual-use trade legislation. A December 17th, 2015 resolution explained, “implementation of Common Position 2008/944/CFSP: In this resolution, Parliament noted that because of technological developments it is difficult to distinguish between pure military and civilian use (para. 43). Parliament welcomed the European Commission’s initiative to modernise EU dual-use export controls and its intention to submit a new legislative proposal related...”⁽⁶⁴⁾. To date, no solutions have been found to improve dual-use trade controls, although the conversation continues. Developing clearer regulation for the export of dual-use goods and services should be a priority for the EU. In identifying better ways to regulate the trade of dual-use products with a military application, the risk of sensitive technology and knowledge unintentionally or intentionally passing into Russian hands will be lessened. Restated, developing better dual-use regulation will only strengthen the level of compliance with sanction policy (and therefore its long term effectiveness).

⁶² Bauer, Sibylle, et al.: CHALLENGES AND GOOD PRACTICES IN THE IMPLEMENTATION OF THE EU’S ARMS AND DUAL-USE EXPORT CONTROLS

⁶³ Bauer, Sibylle, et al.: CHALLENGES AND GOOD PRACTICES IN THE IMPLEMENTATION OF THE EU’S ARMS AND DUAL-USE EXPORT CONTROLS

⁶⁴ European Parliament, European Parliamentary Research Service, and Milan Remáč: Briefing, Implementation Appraisal: Control of Trade in Dual-Use Items

Conclusion

Here marks the conclusion of the fourth essay on V4-Russian economic relations in light of 2014 EU sanction policy. From the European side, multiple Russian firms face capital and trade restrictions (e.g. Almaz-Antey, Kalashnikov Concern, United Aircraft Corporation, and Uralvagonzavod). Other firms face sanctions from the U.S., like Russian defense conglomerate Rostec. Sanctioned Russian defense firms are among some of the largest in the world, and are global market leaders in the production and delivery of military aircraft, missile systems, and arms. Since the implementation of EU sanctions, the Russian defense sector has focused on expanding their presence in the South and East Asian markets, with notable success.

Regarding Russian connections to V4 defense industries though, the Russian defense sector does not possess a significant presence. Since the dissolution of the Soviet Union, V4 defense sectors have remained fairly small. Today, Czechia, Hungary, Poland, and Slovakia possess miniscule presences in the global import and export of arms. Even when involved, V4 nations look to the West for supplies and technology due to their membership in NATO. From 2010 on, the Russian defense sector has never possessed more than a 0.33% origination share of V4 arms imports.

While the impact of sanctions-related defense and dual-use restrictions has been negligible for V4 economies, it has impacted various German and French defense contracts. Although this counts as some form of success, challenges still exist in maintaining and developing effective dual-use trade regulations. By increasing the clarity and ease of compliance with EU law, the strength of sanction policy in this arena can be increased not just for V4 economies, but for all member states. Updating dual-use regulation presents a unique opportunity for policy makers to better defense-related sanctions while simultaneously supporting V4 and EU firms who operate in this space.

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