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THE IMPACT OF THE RUSSIAN-UKRAINIAN CONFLICT ON ARMENIA'S FOREIGN TRADE: A QUANTITATIVE ANALYSIS

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Abstract: *This article aimed to provide a quantitative assessment of the impact of the Russian-Ukrainian conflict on Armenia's foreign trade. The research problem was to analyze how the conflict influenced Armenia's export and import patterns regarding geographical directions and product structure. The objectives were to examine the changes in trade turnover and identify shifts in geographical trade directions and trade structure. The study employed various statistical analysis tools, including dynamic series indicators, structural analysis, time series modeling, trend and moving average approximation, and extrapolation. Through these methods, the study evaluated the effects of the conflict on Armenia's foreign trade. The key results indicated a positive impact of the conflict on trade turnover, with increased trade activity in various geographical directions. Export diversification was also observed as a result of the conflict. Notably, re-export played a significant role in the unprecedented growth of Armenia's trade turnover during this period. In conclusion, the findings suggest that the Russian-Ukrainian conflict had a discernible influence on Armenia's foreign trade, leading to changes in trade patterns and increased trade activity. The study highlights the importance of the re-exports role in analyzing trade dynamics.*

Keywords: *Armenia; Foreign Trade; Russian-Ukrainian Conflict; Trend Analysis; Approximation; Forecasting*

INTRODUCTION

The current Russian-Ukrainian conflict has significantly impacted the economies of neighboring countries, including the Republic of Armenia (RA). The ongoing conflict has created challenges and opportunities for RA's foreign trade. This study aims to analyze the impact of the Russian-Ukrainian conflict on RA's foreign trade, focusing on the changes in export and import volumes, as well as the shifts in product structure and trade geography.

Previous studies have analyzed the effects of conflicts and political instability on trade, both globally and regionally; however, few studies have specifically focused on the impact of the Russian-Ukrainian conflict on the economies of neighboring countries.

The Republic of Armenia, a landlocked country in the South Caucasus region, shares borders with Iran, Georgia, Turkey, and Azerbaijan. Its strategic location renders it an important transit route for regional trade, particularly for the countries of the South Caucasus and Central Asia. Furthermore, the Russian Federation and Ukraine hold significant roles as trading partners for RA, with the former serving as its largest trading partner.

Given the ongoing conflict between Russia and Ukraine, examining the effects of this conflict on RA's foreign trade is imperative. This study aims to bridge this research gap by analyzing the alterations in RA's foreign trade, focusing on the impact of the Russian-Ukrainian

conflict on trade volumes, product structure, and trade geography. The findings of this study will make valuable contributions to the existing literature on the consequences of conflicts on trade, shedding light on the challenges and opportunities neighboring countries encounter in such circumstances.

LITERATURE REVIEW

The ongoing Russian-Ukrainian conflict has significant effects on neighboring countries, including Armenia. Studying and evaluating the consequences of the Russian-Ukrainian conflict is an extremely pressing issue, as its effects are ongoing. Many authors have recently addressed this topic, but most works are predictive, as they rely on statistical information from previous periods to make judgments about the future.

The present literature review synthesizes and summarizes several articles examining the Russian-Ukrainian conflict's impact on Armenia's economy and food security. Specifically, in the article titled "Armenia-Ukraine Trade in the Context of the Russian-Ukraine Conflict", the author Movsisyan (2022) investigated the structure of Ukraine's foreign trade and the product structure of Armenia-Ukraine trade circulation to understand the consequences of the conflict on Armenia's import and export markets. Therefore, Movsisyan concluded that Armenia's poultry market would suffer due to the decline in the import of low-priced poultry from Ukraine. Additionally, reducing tobacco imports could potentially create opportunities for local production.

In the study "The Impact of Russia's War in Ukraine on the Armenian Economy" (Ktoyan, Shirinyan, and Khachatryan 2023), the authors suggest that Armenia will face new challenges in foreign trade management in the context of the Russian-Ukrainian conflict. They think that due to bans (sanctions) on importing various goods to the Russian market, an opportunity has been created for supplying many products to the Russian market since Armenia is viewed as a transit country.

In the article titled "The Russian-Ukrainian Conflict and the Risks of Food Security in Armenia" (Avetisyan and Salnazaryan 2022), the authors highlighted the significant and evident risks to Armenia's food security resulting from the conflict, suggesting that increasing export diversification and providing subsidies to local producers in import substitution would address this issue.

Furthermore, in the article "Economic Vulnerability to the Russian-Ukrainian War" (Raga, Sherillyn, and Pettinotti 2022), the vulnerability index was employed to identify Armenia as the most vulnerable party to the conflict.

An article discussing the geopolitical impact of the conflict on the Black Sea region, emphasizing that Armenia faces more challenges due to its close relationship with Russia, the RA-Azerbaijan conflict, and other factors should also be highlighted (Khilko et al. 2022).

Despite recent studies on the issue, there is a need for a quantitative analysis to determine the impact of the conflict on Armenia's foreign trade. Notably, this research analyzes the latest available data from 2022, and the work is objective and data-driven. Overall, this article provides valuable insights into the impact of the conflict on Armenia's economy and suggests potential solutions to mitigate its negative effects.

METHODOLOGY

The research methodology used in this study involves a quantitative analysis of annual time series indicators characterizing RA's foreign trade turnover (Eliseeva et al. 2010). This analysis aimed to estimate the cumulative effect of the Russian-Ukrainian conflict on RA's foreign trade, using chain and base indicators of dynamics. To better understand the impact of the conflict, the study employed the structural analysis method, which involved examining the country and product factors that contributed to changes in RA's foreign trade turnover. The structural analysis method is powerful for examining the underlying factors contributing to economic indicator changes. By analyzing the country and product factors that influenced changes in RA's foreign trade turnover, the study was able to identify specific drivers of the observed trends and make predictions about future developments.

To approximate the changes in foreign trade turnover, the study utilized trend and moving average approximation methods (Ayvazyan 2010) and made forecasts based on these approximations (Marchenko et al. 2018). By comparing the predicted and actual values for 2022, the study was able to assess the role of different factors in the growth of foreign trade turnover and evaluate the accuracy of the forecasts.

Overall, the research methodology used in this study allowed for a detailed and comprehensive analysis of the impact of the Russian-Ukrainian conflict on RA's foreign trade and provided valuable insights into the factors that contributed to changes in foreign trade turnover. Using statistical analysis tools and forecasting techniques ensured that the results were objective and based on actual indicators rather than being predetermined.

ANALYSIS

To commence, Figure 1 presents the dynamics of the Republic of Armenia's (RA) primary foreign trade indicators, showcasing a growth trend for exports, imports, and trade balance throughout the studied period.

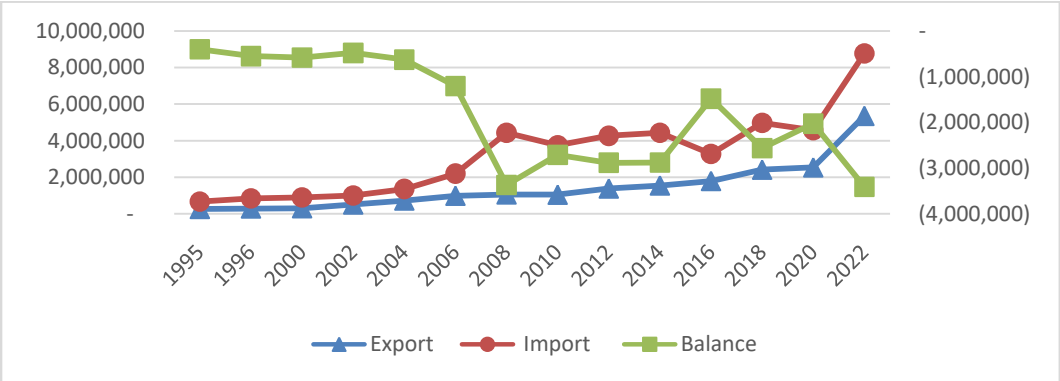


Figure 1: The Dynamics of RA Export, Import, and Trade Balance in 1995-2022 (Source: SC of RA database 2023)

The export dynamics series' average value is 1.318 million dollars, with an average growth rate of 11.9%, indicating an average yearly increase of 189 million dollars in exports. It is noteworthy that in 2022, compared to 2021, exports increased by 2,344 million dollars or 78%, which is the maximum increase for the observed period. The minimum export increase was recorded in 2009 due to the financial crisis, where exports decreased by 347 million dollars. Interestingly, in 2022, compared to 1995, exports increased by 5,099 million dollars or by 1955%.

The maximum value of the import dynamics series was recorded in 2022, reaching 8,769 million dollars. The average growth rate of imports is 10%, with an average absolute growth of 300 million dollars. In 2022, compared to 2021, imports increased by 3,406 million dollars or by 64%, which is the maximum increase for the period under consideration. However, a decrease in import volumes was observed in 2015, with a decrease of 1,185 million dollars. It is worth noting that imports from Georgia, Russia, and Switzerland decreased the most, with 197 million dollars, 153 million dollars, and 149 million dollars, respectively. Moreover, the Russian Federation, Georgia, and Switzerland are the top 1st, 3rd, and 13th import destinations. In 2022, compared to 1995, imports increased by 8,106 million dollars or 1223%.

RA has been identified as a net importer, with an average import exceeding exports 2.3 times. This is evident from the maximum and minimum values of import and export ratios which are 1:64:1 and 3:14:1, respectively. Import levels were observed in years when export levels were low - average or above average. For instance, in 2006-2008, imports increased by 246%, while export increased by 8.5%. On the other hand, a sharp decline in imports was accompanied by a steady growth rate of exports, as observed in 2015-2016.

The impact of the shock on the foreign trade turnover of the Republic of Armenia (RA) in 2022 can be assessed by examining geographical and product factors, along with aggregated indicators such as exports and imports. To accomplish this, an analysis will be conducted on the directions of RA's foreign trade and the structure of its products.

Analysis of the Geography of Armenia's Foreign Trade

Exports

The analysis reveals that the top 20 partner countries account for 95% of Armenia's total exports. These countries have remained relatively stable throughout 2017-2022, with the top 5 including Russia, Switzerland, Bulgaria, China, and the United Arab Emirates. However, only Russia has maintained a stable position among these countries throughout the entire period from 1995 to 2022.

Table 1: Top 20 Export Destinations of RA in 2017-2022 (cumulative) (Source: Authors' calculations)

Country/Position	Cumulative Value Thousand Dollars	Country/Position	Cumulative Value Thousand Dollars
1. Russian Federation	5,896,803	11. United States	395,636
2. Switzerland	2,124,742	12. Italy	322,430
3. China	1,471,975	13. Belgium	313,672
4. Bulgaria	1,262,247	14. India	306,919

5. Iraq	1,036,229	15. Syria	210,435
6. UAE	937,749	16. Belarus	161,637
7. Netherlands	878,698	17. Canada	121,360
8. Germany	578,942	18. Ukraine	117,939
9. Georgia	572,849	19. Poland	84,044
10. Iran	523,431	20. Turkey	67,806

Table 1 presents the top 20 export destinations of Armenia during 2017-2022, sorted in descending order by monetary value. Table 2, on the other hand, shows the changes in trade turnover for the top 20 destinations in 2022 compared to 2021.

Table 2: The Change in Trade Turnover in the Top-20 Destinations of RA (Source: Authors' calculations)

Export			Import		
Country	2022/2021 '000' USD	2022/2021 Difference of Weights	Country	2022/2021 '000' USD	2022/2021 Difference of Weights
Russia	**1,570,282**	**17%**	**Russia**	**877,329**	**-4%**
Switzerland	(104,906)	-7%	China	146,237	-2%
China	(23,678)	-6%	Georgia	368,865	2%
Bulgaria	9,931	-3%	Iran	161,819	-1%
Iraq	72,397	-1%	Germany	234,190	1%
UAE	459,731	7%	USA	325,621	3%
Netherlands	23,616	-2%	UAE	349,778	3%
Germany	28,495	-1%	Italy	50,107	-1%
Georgia	87,937	1%	**Ukraine**	**(61,045)**	**-2%**
Iran	45,644	0%	Turkey	41,091	0%
USA	(3,602)	-1%	Netherlands	51,682	0%
Italy	1,592	-1%	Hong Kong	57,272	0%
Belgium	33,815	0%	Switzerland	62,864	0%
India	(27,276)	-2%	Belgium	46,498	0%
Syria	(5,283)	0%	France	20,383	0%
Belarus	46,875	0%	Belarus	49,258	0%
Canada	(2,720)	0%	Poland	47,916	0%
Ukraine	**(12,891)**	**-1%**	Czech	70,895	0%
Poland	1,989	0%	India	26,188	0%
Turkey	60,755	1%	Spain	47,439	0%

Looking at Table 2, it is evident that the trade turnover between RA and Russia has significantly increased by 2.447 million dollars, despite Russia's declining share in the weight of imports. Meanwhile, RA-Ukraine trade turnover has decreased by 74 million dollars, with a significant decrease in imports of 61 million dollars. Ukraine is the only top-20 country whose imports have declined in absolute value. Additionally, among the top 20 export destinations, there has been a considerable decline in exports to Switzerland by 105 million dollars, India by 27 million dollars, and China by 24 million dollars. Table 2 reveals that the Russian Federation and the UAE are the primary factors contributing to the unprecedented growth of RA's trade turnover in 2022.

Table 3: The Volume and Weight of RA Exports to Russia and UAE (Source: SC of RA database 2023; Authors' calculations)

Year	Russia Export		UAE Export	
	Value	Weight	Value	Weight
2000	44,560	15%	5,479	2%
2001	60,501	18%	7,277	2%
2002	64,634	13%	14,198	3%
2003	94,416	14%	16,609	2%
2004	77,898	11%	8,924	1%
2005	119,004	12%	10,383	1%
2006	121,156	12%	5,597	1%
2007	201,543	17%	6,773	1%
2008	208,175	20%	10,351	1%
2009	107,426	15%	5,338	1%
2010	160,508	15%	8,222	1%
2011	222,274	17%	9,886	1%
2012	279,109	20%	9,414	1%
2013	334,126	23%	9,437	1%
2014	308,250	20%	12,061	1%
2015	244,893	16%	9,099	1%
2016	374,471	21%	63,842	4%
2017	557,256	25%	102,207	5%
2018	666,126	28%	73,826	3%
2019	741,442	28%	57,273	2%
2020	680,338	27%	95,925	4%
2021	840,680	28%	74,394	2%
2022	2,410,962	45%	534,125	10%

To comprehend the factors influencing this growth, let us model the Republic of Armenia (RA) export to the Russian Federation and compare the projected growth data with the actual data. The export model approximation to the Russian Federation was achieved using a third-order polynomial trend, capturing 95% of the time series dynamics. Figure 2 illustrates no "overfitting" issue, as the approximated curve seamlessly extends the series' behavior.

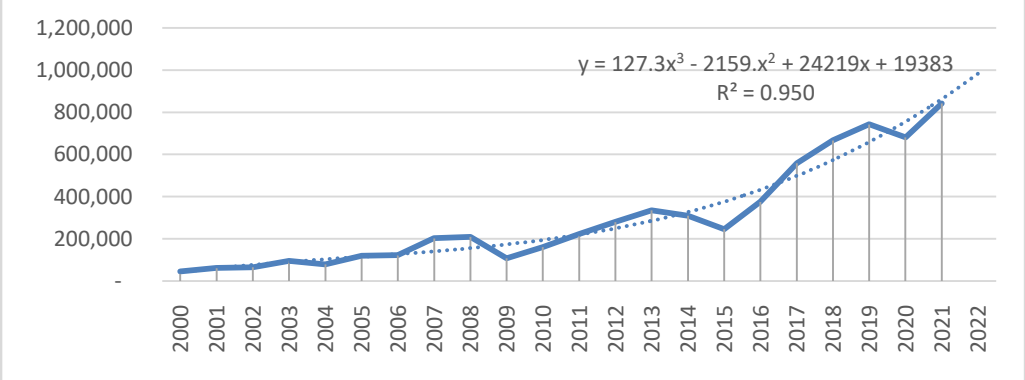


Figure 2: Modeling the Dynamics Series of Exports to the Russian Federation (Source: Authors' calculations)

Based on the model built to approximate the dynamics series of exports to the Russian Federation, the predicted value for 2022 was $983,184 thousand. However, the actual value in Table 2 was $2,410,962thousand, indicating a significant increase beyond the predicted value.

While the model suggested a 17% increase in exports to Russia in 2022 compared to 2021, the actual increase was 2.87 times. This discrepancy suggests the presence of a shock in 2022 that was not accounted for in the model.

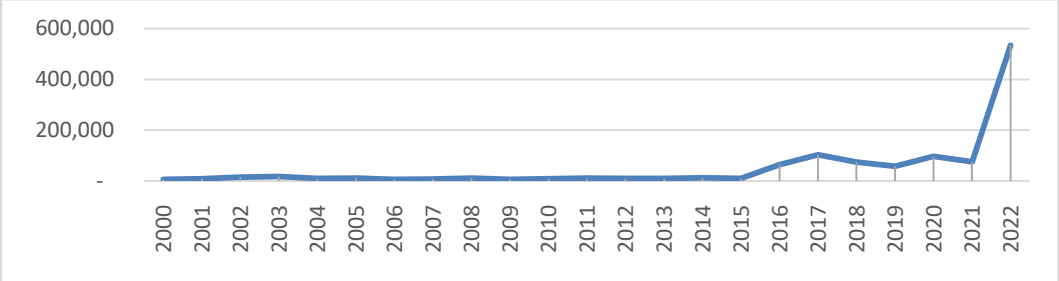


Figure 3: Series of Dynamics of Exports to the UAE (Source: SC of RA database 2023)

Figure 3 displays the series of exports to the UAE, which suggests that until 2017, the direction of exports to the UAE was not significant for RA exports. From 2017 to 2021, it appears to be an average trend, resembling a random walking process. The average value for this period was $77,911 thousand, which is consistent with the previous values of the series. In 2022, compared to 2021, the direction of exports to the UAE was expected to increase by 5%, but in reality, it increased 7 times. It is not possible to approximate the UAE trend using a polynomial trend due to the lack of significant directional exports until 2017.

Next, the contribution of export growth to the Russian Federation and the UAE will be estimated as a factor in the overall expansion of total exports. To accomplish this, the time series of total exports will be approximated using a third-order polynomial trend. This approximation effectively explains 96% of the indicator's variation, indicating the absence of any "overfitting" issue. Figure 4 showcases the predicted trend based on the approximation, demonstrating consistency with the actual data.

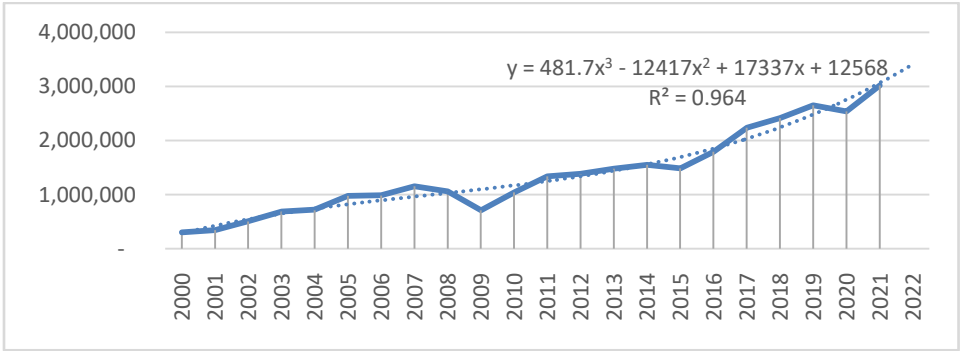


Figure 4: Modeling of RA Export Dynamics (Source: Authors' calculations)

The predicted value based on the model is $3,406,485thousand. This means that if there had been no shock in 2022, RA exports should have increased regularly by 13%. However, the actual increase was much higher, at 78%.

If there had been no shock, the share of exports from Armenia to Russia would have been 29% instead of the actual 45%. Similarly, the share of exports to the UAE would have been around 3% instead of the actual 10%. The difference between the total exports and actual values is $1,953,584 thousand. Of this difference, the Russian Federation and the UAE accounted for 96%, or $1,883,992 thousand. Specifically, Russia contributed $1,427,778 thousand, or 73%, while the UAE contributed $456,214 thousand, or 23%.

Imports

For the analysis of imports, we will focus on the top 20 countries, which account for 90% of total imports to Armenia. Table 2 shows that out of the top 5 countries, only Russia has maintained a stable position in import shares from 1995 to 2022. Among the other top 5 countries, Georgia, Iran, and China stand out. It is worth noting that there has been no individual country shock effect on import shares, indicating that the import increase was proportionate among major trading partners.

A moving average model with 2 averaging periods has been selected to depict the time series of total imports. Table 4 displays the predicted values derived from the model and the actual values of total imports.

Table 4: Comparison of Forecast and Actual Import of RA (Source: Authors' calculations)

Year	Actual	Forecast	Difference
2001	877,409	880,708	3,299
2002	987,155	932,282	(54,873)
2003	1,279,490	1,133,323	(146,168)
2004	1,350,698	1,315,094	(35,604)
2005	1,801,736	1,576,217	(225,519)
2006	2,191,613	1,996,674	(194,938)
2007	3,267,788	2,729,700	(538,088)
2008	4,426,129	3,846,959	(579,171)
2009	3,321,134	3,873,632	552,498
2010	3,748,954	3,535,044	(213,910)
2011	4,145,332	3,947,143	(198,189)
2012	4,261,233	4,203,282	(57,950)
2013	4,385,866	4,323,549	(62,317)
2014	4,424,424	4,405,145	(19,279)
2015	3,239,239	3,831,832	592,593
2016	3,273,469	3,256,354	(17,115)
2017	4,097,066	3,685,268	(411,798)
2018	4,975,217	4,536,141	(439,076)
2019	5,528,691	5,251,954	(276,737)
2020	4,564,032	5,046,361	482,329
2021	5,362,209	4,963,121	(399,088)
2022	**8,768,659**	**7,065,434**	**(1,703,225)**

The average absolute error, which indicates the quality of the model approximation, is 9%, suggesting that the model is adequate and can explain about 91% of the behavior of RA imports. As shown in Table 4, the model forecast for 2022 is $7,065,434 thousand. This means that the import of RA should have increased by 32% in 2022 compared to 2021. However, in reality, it increased by 64%.

Analysis of the Product Structure of Armenia's Foreign Trade

Export

In line with the geographical analysis, the product structure was examined, focusing on the top 70 products (out of 1100 products classified by four digits) that collectively constitute 90% of the total export. Table 5 showcases the groups of products with the highest share in RA exports based on their value.

Table 5: Share of Top Products in Exports (in terms of value) (Source: Authors' calculations)

Quantity of Products	Amount	Cumulative Weight
5	8,982,096	49%
10	11,601,542	64%
15	12,880,996	71%
20	13,636,977	75%
25	14,144,306	78%
30	14,565,386	80%
40	15,248,528	84%
70	**16,360,911**	**90%**
TOTAL	**18,210,729**	**100%**

According to Table 5, the top 5 products account for approximately 49% of the total exports, the top 10 for 64%, and the top 15 for 71%. This indicates a decreasing concentration trend. To further analyze this trend, let us shift our focus to the top 20 product groups, as the coverage of the 5th and 10th groups becomes less significant after that (as depicted in Figure 6). Table 6 displays the share of the top 20 products in exports.

Table 6: Share of Top-20 Products in Exports (Source: Authors' calculations)

Product Category Name	Cumulative Amount 1000$	Average Weight
Copper ore, concentrate	3,760,209	21%
Cigarette and cigar	1,577,598	9%
Brandy, rum, gin, vodka, liqueur	1,399,352	8%
Unwrought or semi-wrought gold, dust	1,352,213	7%
Iron smelting	892,724	5%
Diamond stone	822,625	5%
Aluminum foils <0.2mm	624,853	3%
Electricity	425,710	2%
Molybdenum ore, concentrate	415,280	2%
Jewelry	330,978	2%
Passenger car	324,847	2%
Telephone and telegraph equipment, modem, parts	281,902	2%
Fish (fresh)	245,052	1%
Suit, pants, jacket (men's)	216,034	1%
Coat, warm half jacket, raincoat (women's)	211,617	1%
Tomato	181,094	1%
Apricot, cherry, peach, cherry, honey	180,318	1%
Coat, warm half jacket, raincoat (men's)	143,706	1%
Unrefined copper, copper anode e. for filtering	129,248	1%

Table 6 indicates that copper ore accounts for one-fifth of RA's exports, followed by "Cigarettes and cigars", "Brandy, rum, gin, vodka, liquor", "Unprocessed or semi-processed gold, powder", and "Smelting iron" product groups, with respective shares of 9%, 8%, 7%, and 5%.

Table 7: The Difference in the Relative Weights of the RA Export Structure in 2022/2021 (Source: Authors' calculations)

Product Category Name	2021	2022	2022/2021 1000$	2022/2021
Copper ore, concentrate	26%	12%	(106,346)	-13%
Cigarette and cigar	8%	6%	81,065	-2%
Brandy, rum, gin, vodka, liqueur	8%	5%	45,275	-3%
Unwrought or semi-wrought gold, dust	4%	8%	280,401	3%
Iron smelting	6%	5%	63,315	-2%
Diamond stone	4%	8%	312,111	4%
Aluminum foils <0.2mm	4%	2%	9,234	-2%
Electricity	2%	2%	37,913	0%
Molybdenum ore, concentrate	4%	3%	32,755	-1%
Jewelry	2%	2%	33,927	0%
Passenger car	0%	5%	245,287	4%
Telephone and telegraph equipment, modem, parts	0%	5%	268,856	5%
Fish (fresh)	2%	1%	21,580	0%
Suit, pants, jacket (men's)	1%	1%	1,295	0%
Coat, warm half jacket, raincoat (women's)	1%	1%	(3,705)	-1%
Tomato	1%	1%	3,932	-1%
Apricot, cherry, peach, cherry, honey	1%	1%	6,063	0%
Coat, warm half jacket, raincoat (boys)	1%	0%	503	0%
Unrefined copper, copper anode e. for filtering	0%	0%	-	0%
Precious metal ore, concentrate	1%	2%	69,935	1%

Table 7 indicates that the top export product of RA experienced a 13% decrease in its share, resulting in a reduction of $106 million in absolute value. However, the share of "Cigarettes and cigars" decreased by a smaller margin, while its absolute value increased by $80 million. On the other hand, there were significant increases in the exports of products such as "Passenger cars", "Telephone and telegraph equipment, modem, parts" (which had no exports in 2021), "Rough or semi-rough gold, powder", and "Diamond stone".

Imports

In contrast, the product structure of RA imports is more diversified than that of exports. The analysis shows that 270 products (out of 1245 with a 4-digit classification) account for 90% of total imports. Table 8 presents the shares of the top products in RA imports.

Table 8: Share of Top Products in Imports (in terms of value) (Source: Authors' calculations)

Quantity of Products	Amount	Cumulative Weight
5	8,500,745	26%
10	11,245,838	34%
15	12,676,595	38%
20	13,864,711	42%
25	14,843,307	45%
30	15,741,284	47%
40	17,295,203	52%
70	20,847,127	63%
270	**29,950,449**	**90%**
Total	**33,295,874**	**100%**

Table 8 shows that the top 5 products cover about 26% of imports, the top 10 - 34%, and the 15th - 38%. As you can see, the concentration is getting smaller. Let us stop and detail the top 20 name-product group.

Table 9: Share of Top-20 Products in Imports (Source: Authors' calculations)

Product Category Name	Cumulative Amount 1000$	Average Weight
Natural and liquid gas	2,643,015	8%
Oil and oil products (gasoline, fuel oil, oil, diesel fuel, oil)	2,005,059	6%
Passenger car	1,836,305	6%
Diamond stone	1,074,849	3%
Telephone and telegraph equipment, modem, parts	941,517	3%
Medicine consists of separate substances	897,156	3%
Unwrought or semi-wrought gold, dust	617,305	2%
Aluminum raw	423,701	1%
Wheat	414,199	1%
Automatic counting machines, blocks	392,732	1%
Raw tobacco and residue	350,804	1%
Motor grader, single-bucket loader, excavator, etc	274,951	1%
Chocolate (containing cocoa)	274,636	1%
Car truck	268,614	1%
Television	261,752	1%
New rubber tire	256,289	1%
Poultry meat and meat products	250,657	1%
Cigarette and cigar	237,718	1%
Medical, surgical, and dental device	236,383	1%

Table 9 shows that 8% of RA imports are "Natural and liquefied gas", followed by "oil and petroleum products", "Passenger car", "Diamond stone", "Telephone and telegraph equipment, modem, parts", product groups with a specific weight of 6%, 6%, 3%, and 3%, respectively.

Table 10: The Difference in the Relative Weights of the RA Import Structure in 2022/2021 (Source: Authors' calculations)

Product Category Name	2021	2022	2022/2021 1000$	2022/2021
Natural and liquid gas	9%	6%	51,499	-3%
Oil and oil products (gasoline, fuel oil, oil, diesel fuel, oil)	7%	7%	201,890	0%
Passenger car	2%	8%	583,403	6%
Diamond stone	2%	4%	266,635	2%
Telephone and telegraph equipment, modem, parts	2%	4%	298,170	3%
Medicine consists of separate substances	3%	2%	14,122	-1%
Unwrought or semi-wrought gold, dust	2%	3%	143,760	1%
Aluminum raw	1%	1%	26,130	0%
Wheat	1%	1%	39,854	0%
Automatic counting machines, blocks	1%	2%	114,190	1%
Raw tobacco and residue	1%	0%	(15,869)	0%
Motor grader, skid steer loader, excavator, etc	1%	1%	42,644	0%
Chocolate (containing cocoa)	1%	1%	15,136	0%
Car truck	0%	1%	31,491	0%
Television	1%	1%	97,346	1%
New rubber tire	1%	1%	10,586	0%
Poultry meat and meat products	1%	1%	14,017	0%
Cigarette and cigar	1%	0%	4,098	0%
Medical, surgical, and dental device	1%	1%	26,410	0%
Sugar	1%	0%	577	0%

Table 10 reveals that while the share of RA's top import product decreased by 3%, its absolute value increased by 51 million dollars. Meanwhile, the share of "Oil and oil products" remained the same, but the absolute value increased by 202 million dollars. Notably, there has been a significant increase in the import of products such as "Passenger cars" and "Telephone and telegraph equipment, modem, parts". In contrast, importing "Unprocessed or semi-processed gold, dust", and "Diamond stone" has also seen an unprecedented rise.

CONCLUSION

The study revealed that the considerable increase in both exports and imports in 2022, compared to 2021, can be attributed to the ongoing conflict between Russia and Ukraine. The notable disparity between the values observed at the beginning and end of the research period is evidence of RA's pursuit of an open foreign trade policy to enhance the economy's degree of openness and integration into the global market.

At the outset of the period, the trade balance values were low due to relatively modest foreign trade volumes. It is appropriate to consider the maximum and minimum trade balance values starting from 2007, as this year marks the point at which foreign trade volumes became comparable to current levels. In 2022, the maximum trade deficit in absolute value was $3.409 million, but it is incorrect to view this as the worst outcome. It is necessary to determine whether the deficit deepened solely due to the import effect or increased with growth in exports and imports. The former scenario would more harm the economy, whereas the latter is a natural occurrence. Indeed, there was a deepening of the foreign trade deficit in absolute value in RA

due to the volume effect, as imports exceeded exports in absolute value but not in the value of relative growth.

Regarding geography, the events of 2022 significantly impacted RA's exports. The RA-Russian trade turnover increased by an unprecedented 86%, while the RA-Ukraine trade turnover decreased by 43%. Concerning product structure, product diversification increased in 2022 due to a sharp decline in the proportion of copper ore. The growth of the "Passenger car" and "Telephone and telegraph equipment, modem, parts" product groups resulted from re-export, meaning that they were imported to RA, then exported from RA, and counted as exports.

Under normal conditions, the anticipated growth in RA's exports would have been 13%, and the growth observed in 2022/2021 was 78%. Thus, if the current geopolitical situation is resolved, RA can expect a 65% drop in exports to Russia. Under normal conditions, the expected increase in RA's imports is 32%, and the observed increase in 2022/2021 was 64%. Therefore, if the geopolitical situation is resolved, RA should expect a 32% drop in imports from Russia, leading to a 35% decrease in total trade turnover.

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COMPLIANCE WITH ETHICAL STANDARDS

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