

**Khazar University**  
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**Impact Of Russian Ukrainian War On Trade Balance Of  
Azerbaijan**

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## Abstract

The ramifications of the ongoing conflict between Russia and Ukraine on Azerbaijan's trade balance have garnered considerable attention and scrutiny within academic circles. The present research investigates the aftermath of the conflict and its consequent geopolitical ramifications on the trade dynamics of Azerbaijan. The present study endeavors to illuminate the impacts of the war on Azerbaijan's trade balance by means of a thorough examination of trade data and economic indicators.

The onset of the Russian-Ukrainian conflict resulted in a sequence of political and economic disturbances within the area. Azerbaijan, being a contiguous state and a significant stakeholder in the South Caucasus region, encountered significant ramifications. This research examines the various channels through which the conflict has affected Azerbaijan's trade, encompassing modifications in import and export trends, adjustments in trade pathways, and modifications in market inclinations.

Furthermore, the study investigates the impact of energy exports, specifically oil and gas, on the trade balance of Azerbaijan throughout the aforementioned timeframe. The trade dynamics of Azerbaijan are notably impacted by the global energy prices and demand, given its status as an energy-abundant nation. This study examines the impact of energy market fluctuations and supply chain disruptions, stemming from the Russian-Ukrainian conflict, on Azerbaijan's trade balance.

The study investigates the strategies implemented by Azerbaijan to alleviate the adverse effects of the conflict on its trade equilibrium. The aforementioned encompasses the implementation of diversification tactics, the investigation of novel markets, and the establishment of substitute transportation pathways. The assessment of the efficacy of these measures in preserving trade stability and resilience amidst geopolitical challenges is conducted.

The study's results offer significant perspectives on the impact of the Russian-Ukrainian conflict on Azerbaijan's trade equilibrium. Comprehending the aforementioned effects holds paramount importance for policymakers, businesses, and researchers in devising tactics to augment trade resilience, pinpoint novel prospects, and mitigate susceptibilities in an unstable geopolitical milieu.

## Referat

Rusiya ilə Ukrayna arasında davam edən münaqişənin Azərbaycanın ticarət balansına olan nəticələri akademik dairələrdə böyük diqqət çəkdi. Bu araşdırmada münaqişənin iqtisadi və onun Azərbaycan ticarətinin dinamikası üçün yaranan geosiyasi nəticələri araşdırılır. Bu tədqiqat ticarət məlumatlarının və iqtisadi göstəricilərin real datalardan alınmış statistik üsülü ilə müharibənin Azərbaycanın ticarət balansına təsirini vurğulamağa cəhd edilib.

Rusiya-Ukrayna münaqişəsinin başlaması bu bölgədə bir sıra siyasi və iqtisadi sarsıntılara səbəb oldu. Azərbaycan Cənubi Qafqaz regionundakı qonşu bir dövlət və mühüm maraqlı tərəf kimi əhəmiyyətli nəticələrlə üzləşib. Bu tədqiqat münaqişənin Azərbaycan ticarətinə təsir etdiyi müxtəlif kanallara, o cümlədən idxal və ixrac tendensiyalarındakı dəyişikliklərə, ticarət yollarındakı müxtəlifliklərə və bazar meyllərindəki dəyişikliklərə baxır.

Bundan əlavə, tədqiqat, enerji daşıyıcılarının, xüsusilə neft və qazın ixracının Azərbaycanın ticarət balansına təsirini araşdırır. Azərbaycanın ticarət dinamikası, enerji ehtiyatları ilə zəngin bir ölkə statusunu nəzərə alaraq, dünya enerji qiymətlərindən və onlara olan tələbdən çox asılıdır. Bu tədqiqat enerji bazarındakı dalğalanmaların və Rusiya-Ukrayna münaqişəsinin səbəb olduğu tədarük zəncirlərindəki dalğalanmaların Azərbaycanın ticarət balansına təsirini araşdırır.

Tədqiqatda münaqişənin ticarət tarazlığı üçün mənfi nəticələrini azaltmaq üçün Azərbaycanın həyata keçirdiyi strategiyalar araşdırılır. Müxtəlif diversifikasiya taktikalarının tətbiqi, yeni bazarların araşdırılması və alternativ nəqliyyat yollarının yaradılması daxildir. Geosiyasi çağırışlar şəraitində ticarət sabitliyinin və canlılığın qorunmasında bu tədbirlərin effektivliyinin qiymətləndirilməsi aparılır.

Tədqiqatın nəticələri Rusiya-Ukrayna münaqişəsinin Azərbaycanın ticarət balansına təsiri ilə bağlı əhəmiyyətli perspektivlər açır. Yuxarıda göstərilən təsirləri anlamaq siyasətçilər, biznesmenlər və tədqiqatçılar üçün ticarətin davamlılığını artırmaq, yeni perspektivləri müəyyənləşdirmək və qeyri-sabit geosiyasi mühitdə stabilliyi artırmaq üçün strategiyaları inkişaf etdirməkdə çox vacib olduğu vurğulanır.

# Table of Contents

Abstract.....	2
Referat.....	3
Table of Contents.....	4
Abbreviations.....	6
List of figures.....	7
List of tables.....	8
Introduction.....	9
Chapter 1. The build-up of economic relations among warring countries and Azerbaijan after the collapse of Soviet Union.....	11
1.1.Main products and services: .....	11
1.1.1.Oil and Gas sector.....	11
1.1.2.Non-oil and gas sector. ....	12
1.2.Tendency of trade. ....	14
1.2.1.Exports. ....	14
1.2.2.Imports. ....	15
1.3.How important warring parties were for Azerbaijan in terms of imports. ....	17
1.3.1.Russia.....	17
1.3.2.Ukraine.....	18
1.4.How important warring parties were for Azerbaijan in terms of exports.....	18
1.4.1.Russia.....	18
1.4.2.Ukraine.....	20
1.5.Challenges in expanding trade relations. ....	21
Chapter 2. Initial trade balance reflection of phenomenon at the start of Russian-Ukrainian war .....	25
2.1. General insight about COVID-19 impact on trade balance.....	25
2.1.1. Oil and Gas sector.....	25
2.1.2. Non-oil and gas sector. ....	28
2.2. Adaptation process and tendency of trade relations. ....	29
2.3. Impact of war and COVID-19. ....	35
2.3.1. Why R? .....	35
2.3.2. Data.....	36
2.3.3. Model.....	37
2.3.4. Simulation.....	38

2.3.5. Results.....	38
Chapter 3. How the trade balance reflection of phenomenon settling down in long term. ....	42
3.1. What if the war goes on for another period? .....	42
3.1.1.Future perspectives of trading with warring parties. ....	42
3.1.2. Alternative ways of minimizing the impact.....	43
3.2.What if war finishes .....	44
3.2.1.Possible turnaround of events .....	44
3.2.2.Diversification perspectives.....	45
3.3.Relationships shaping with third parties. ....	47
Conclusion .....	55
References.....	57
Appendix A.....	63
Appendix B .....	64
Appendix C .....	65
Appendix D.....	66
Appendix E .....	67

# Abbreviations

**EU:** European Union

**WTO:** World Trade Organization

**SMEs:** Small and Medium Entrepreneurs

**OPEC:** Organization of the Petroleum Exporting Countries

**ACG:** Azeri-Chirag-Gunashli

**BTC:** Baku-Tbilisi-Ceyhan\

**UNCTAD:** United Nations Conference on Trade and Development

**USD:** United State Dollar

**NTB:** Non-tariff barriers

**B2B:** Business to Business

**IEA:** International Energy Agency

**EIA:** Energy Information Administration

**WTI:** West Texas Intermediate

**JMMC:** The Joint Ministerial Supervisory Committee

**SOCAR:** State Oil Company of Azerbaijan Republic

**OECD:** The Organization for Economic Cooperation and Development

**GDP:** Gross Domestic Product

**TANAP:** The Trans-Anatolian Natural Gas Pipeline

**SGC:** Southern Gas Corridor

**TITR:** The Trans-Caspian International Transport Route

**TRACECA:** The Transport Corridor Europe-Caucasus-Asia

**EBRD:** The European Bank for Reconstruction and Development

**ADY:** Azerbaijan Railways (Azərbaycan Dəmir Yolları QSC)

**TEU:** Twenty Equipment Unit

## **List of figures**

Figure 1. Dynamics of Foreign Export Relations of Azerbaijan Republic.....	14
Figure 2. Dynamics of Foreign Import Relations of Azerbaijan Republic.....	16

## List of tables

Table 1. Main Commodities Imported from Russia .....	17
Table 2. Main Commodities Imported from Ukraine .....	18
Table 3. Main Commodities Exported to Russia .....	19
Table 4. Main Commodities Exported to Ukraine.....	21
Table 5. January to June, monthly simulation result .....	38
Table 6. July to December, monthly simulation result .....	39
Table 7. Yearly simulation result.....	39



# Introduction

Since the beginning of the late Renaissance, mercantilism has been the most dominant economic policy for European countries, which states that the most meaningful value of economics is to have more exports than imports. The main purpose was to have a surplus on the trade balance, so continuing with it for years will give the nation a huge number of monetary reserves. However, the hype of mercantilism slowly died after classical economists launched a campaign about how mercantilism was wrong and efficiency was out of consideration. Thanks to Adam Smith's *The Wealth of Nations*, the theory of comparative advantage, which later evolved into absolute advantage by David Ricardo and the successors of *laissez-faire* (free market economy), made it clear that international trade and the specialization of countries result in greater efficiency and overall production at a lower cost.

Nowadays, trade relations among countries are better than ever, and the globalization process is at its peak. According to the official website of the World Trade Organization (WTO), the volume of world trade has increased by 4300%, or 374 times, relative to 1950, which is an extraordinary number if we consider that there have been a few major financial crises. Most of this increment is due to the development of transportation varieties, reduced transport costs, specialization of states, the ability to outsource certain production or service sectors of companies, etc.

As implied, international trade is one of the most vital parts of economics, so this research paper will be about how the war phenomenon has affected and will continue to affect the trade balance of Azerbaijan. Azerbaijan is one country that is both geographically and economically settled in such a fascinating location that all the political and economic decisions of the nearby region directly or indirectly impact the country's trade balance. Historically, Azerbaijan has been known for its vast natural resources, mostly oil and gas. Of course, having majestic neighbours has never been a blessing in disguise, as, repeatedly throughout history, they allegedly attacked and ransacked the state, the main reasons being natural resources and geographic location.

If we describe direct effects, probably the best story would be the first and second Karabakh wars between Azerbaijan and Armenia, but our scope for this research paper is different from that which covers both direct and indirect impact of war between Russia and Ukraine on Azerbaijan. The history of conflict between these two parties' dates way back to the first years of independence from the Soviet Union, the annexation of the Crimean Peninsula by the Russian Federation, and the most recent, ongoing war that broke out on February 24, 2022.

The focus point of this thesis will be the last one, which is still relevant and the most eye-catching event for both local and global audiences. When the Russian-Ukrainian war comes to the table, Belorussia must not be excluded, as it also faced sanctions because of the war and was affected by it economically, which impacts the Azerbaijani trade balance.

Research question of the thesis is to determine how the trade is affected, is it even significant in both import and export either positive or negative. In order to find the significance of the effect of war we also included Covid-19 to get inside if there were any effects of the pandemic on war. The research is confirmatory as we want to declare that the studies up until this point were genuinely correctly identified effects of war on third parties.

The main idea of the paper includes measuring the impact of the war on the Azerbaijani trade balance through the evaluation of multiple essential products and services that are currently exported or imported. To learn more about how the situation came to be this way and the impact it will have on Azerbaijan's economy, we will conduct multiple regression analysis with the help of R program. The overall result will lead us to insights about how the war and the Covid-19 impacted the trade balance of Azerbaijan. Covid-19 is one of the most interesting factors as it is still present and separating the way the two phenomena affected the trade balance will be captivating to observe.

# **Chapter 1. The build-up of economic relations among warring countries and Azerbaijan after the collapse of Soviet Union.**

## **1.1. Main products and services:**

### **1.1.1. Oil and Gas sector.**

Since becoming a sovereign nation post-Soviet disintegration, Azerbaijan has come a long way with exports elevating it significantly on the economic landscape globally and provided it with prowess within the energy industry specifically oil and gas. Specialized transit routes for these resources coupled with abundant resources found within Caspian Sea area have allowed this country to forge multiple mutually profitable partnerships on an international level.

Presently excluding OPEC nations from the picture or comparison Azerbaijani production ranks high due primarily to extensive reserves available. However, when conveying or exporting any of their valuable petroleum/energy products finding new outlets ultimately strengthening both economies is always preferable right? Fortunately for them opening up access directly into Europe avoiding Russia enhancing opportunities even further via Baku-Tbilisi-Ceyhan pipeline opened new doors.

In 2021, productivity-wise Azerbaijan produced an astounding 710,000 barrel per day, which approximately fifty percent were shipped abroad demonstrating high demand outside while ensuring stable sales essential for continued growth.

Azerbaijan remains heavily reliant on trade relationships within the oil and gas industry. Their significant trading partner is Russia accounting for almost one third of its exported oil products while also contributing significantly through imports of their natural gases (Energy & Mining | Data, n.d.). Second on the list is Turkey responsible for approximately 20% of its overall exports with the latter also being an essential transit country allowing access to European markets via Natural Gas projects – South Caucasus Pipeline, Trans Anatolian Pipeline, and Trans Adriatic Pipeline. As the European Union focuses on reducing its reliance on Russian energy partners, they view Azerbaijan as the attractive alternative. Italy and Greece alone received nearly 10 billion cubic meters of exported natural gas from Azerbaijan in 2021 (Energy & Mining | Data, n.d.). Furthermore, European investments are significant within Azerbaijan's energy sector with associated infrastructures contributing to their economic growth. The BTC (Baku Tbilisi Ceyhan) pipeline functions to speed up oil product delivery timelines while also expanding export markets through their Southern Gas Corridor

project. Azerbaijan continues to emphasize market diversifications importance positioning Turkey, Russia and EU as essential trade partners within the oil and gas industry. Interestingly even though they dominate other exporting countries in fuel production; they still import \$1.8 billion worth of fuel products (6% of total imports) for domestic use according to World Bank estimates for 2020 data. To sustain production levels effectively in the realm of oil and gas supplies in Azerbaijan, the nation must rely on major suppliers such as Russia Kazakhstan and Turkmenistan. While actively importing crude petroleum products like natural gases as well as refined product variants including gasoline diesel fuel blends or kerosene.

In particular during 2020 when taking into account geopolitical factors of sourcing supplier connections -Russia was instrumental accounting for almost 70% of Azerbaijan's total supply footprint followed by equivalent contributions from Kazakhstani or Turkmenistan vendors.

It is noteworthy that despite being self-sufficient exporters delivering crude petroleum globally; domestic demand leads the consumption factor in Azerbaijan driven by their utilization for trade international partnerships. This development means that continuing with these supplier partnerships with dominant suppliers-Russia/Kazakhstan/Turkmenistan has considerable significance impact regarding Azerbaijan's trade balance outcome.

### **1.1.2.Non-oil and gas sector.**

As a way to decrease its reliance on energy products and increase market diversity Azerbaijan has been placing more emphasis into enhancing its non-oil/gas sectors relevance within their economy recently .Though oil and gas related products still feature heavily therein increasing quantities of agriculturally sourced fruits/vegetables/nuts are exported worldwide by this country; notably reaching places like Russia Turkey along with the European Union driving up the total value of Azerbaijani non-oil & gas global transactions Agricultural activities contributed to about 10% of all Azerbaijani external trades during calendar year 2020 with such transactions being worth around \$1.2 billion over that year period (Azerbaijan | Data). Notwithstanding agriculture or farming types businesses contribution towards diversifying Azerbaijani economy further lies vastly within manufacturing—especially within machinery/metals/-chemicals portfolios—where Azerbaijan continues to export such goods mostly into neighbouring countries For 2020 the manufacturing industry accounted for roughly 8% of all Azerbaijani external trades amounting to a sum of \$920 million in total (Azerbaijan | Data) Nevertheless construction sectors do still manage to contribute towards increasing Azerbaijani welfare too being efficient in exporting construction materials such as cement steel and glass across their borders. Facts from the World Bank highlighted the

importance of this industry accounting for an estimated 4% of all exports with a total value reaching \$475 million.

Finally, Azerbaijan's tourism sector has also played a role in the country's trade balance, with the country earning foreign exchange from tourism services. Tourism services accounted for around 1% of Azerbaijan's total exports in 2020, with the country earning a total of \$126 million from tourism services (Azerbaijan | Data, n.d.).

In conclusion, Azerbaijan's non-oil and gas sectors have grown and diversified in recent years, with exports of agricultural products, manufactured goods, building materials, and tourism services on the rise. Azerbaijan's efforts to diversify its economy and increase its trading links in non-oil and gas sectors have contributed to a more balanced trade balance and decreased reliance on energy exports.

**Imports.** Azerbaijan's non-oil and gas imports have been increasing in recent years, country imported a total of \$10.3 billion worth of non-oil and gas products in 2020, which accounted for around 34% of the country's total imports (Azerbaijan | Data, n.d.). The primary categories of Azerbaijan's non-oil and gas imports are machinery, transport equipment, and manufactured items such as textiles, chemicals, and metals. In 2020, machinery and transport equipment contributed for over 36% of the nation's total non-oil and gas imports, while manufactured products accounted for approximately 28%.

A considerable amount of machinery and equipment is imported by Azerbaijan from China, Turkey, and Germany, while manufactured goods are primarily imported from Turkey, China, and Russia. The country imports a number of different goods, including food, textiles, and pharmaceuticals, from numerous nations. The import of non-oil and gas products has a significant impact on Azerbaijan's trade balance, as the country's exports of non-oil and gas products are significantly lower than its imports.

In recent years, Azerbaijan's non-oil and gas imports have increased, with machinery, transport equipment, and manufactured items being the majority of non-oil and gas imports. While imports of non-oil and gas items have contributed to a trade deficit, the nation's efforts to diversify its economy and lessen its reliance on energy imports are likely to continue in the foreseeable future.

## 1.2. Tendency of trade.

### 1.2.1. Exports.

Since achieving independence in 1991, the export sector of Azerbaijan's economy has undergone significant changes. The export composition of Azerbaijan has undergone a significant transformation, with oil and gas products becoming the dominant export item (Abbasov, 2021).

Cotton, silk, and fruit dominated Azerbaijan's non-oil exports in the early years of independence. However, following the discovery of substantial oil and gas deposits in the Caspian Sea region, Azerbaijan's export structure shifted toward oil and gas products. The development of the ACG oil field in the late 1990s represented a turning point in Azerbaijan's export structure, with oil and gas exports quickly becoming the country's main economic contributor.

As seen in Figure 1 below, the overall tendency of trade with Azerbaijan had been on the rise steadily since its independence up until 2007. During the time period after 2008, because of the financial crisis, the overall trend changed remarkably. We can clearly see a huge spike followed by a decrease just like the increment; afterwards, the trend seems to be back in place. In 2015, as a result of two devaluations in terms of the USD, exports seem to be on a negative trend.

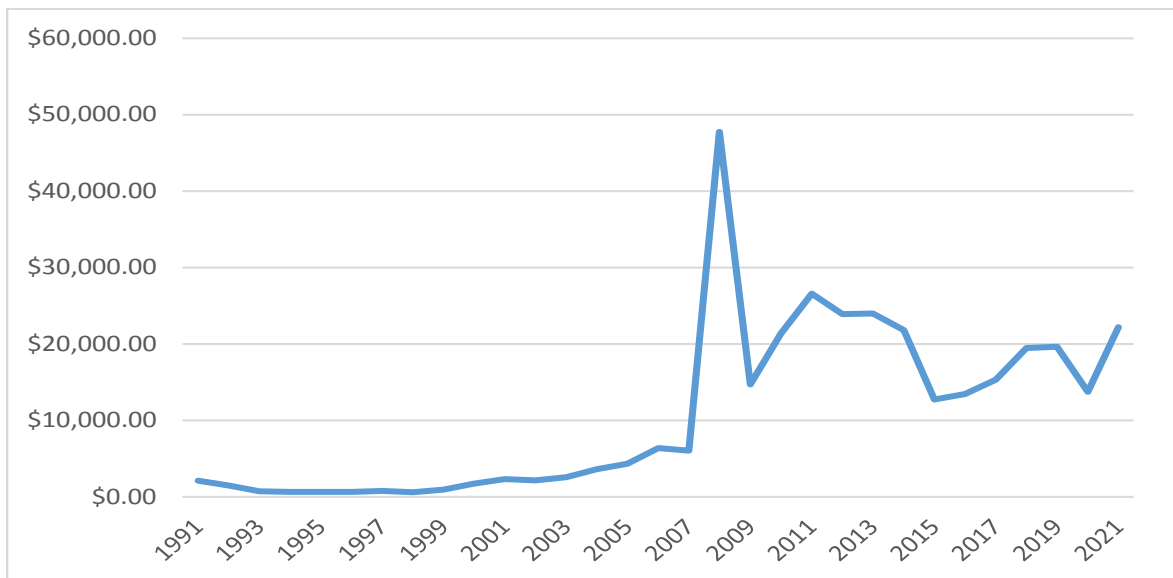


Figure 1. Dynamics of Foreign Export Relations of Azerbaijan Republic.

It is estimated that oil and gas products accounted for around 91% of Azerbaijan's overall exports in 2018, while non-oil exports accounted for barely 9% (Abbasov, 2021). The

economic dominance of oil and gas exports in Azerbaijan has both positive and bad effects. On the one hand, it has given a substantial source of revenue for the nation, so contributing to economic growth and development. On the other side, it has exposed the economy to the risk of an oil price shock and made the nation susceptible to swings in global oil and gas prices.

Determined to reduce over-reliance on oil revenues, Azerbaijan has adopted strategies aimed at broadening its export portfolio through initiatives centring around non-oil industries like agriculture, tourism, and manufacturing (E.Cornell,2018).International institutions such as The World Bank and The European Bank for Reconstruction and Development have allowed Azerbaijan to pursue these processes by boosting support . Regardless of their resolute efforts however non -oil exports still account for an insignificant fraction(12.2%)of national trade figures compared to petroleum-based products(Azerbaijan| Data,n.d) That being said, the government's vision towards economic transformation remains steadfast as evidenced by continuous impetus towards diversification plans. While Oil and gas products contain considerably are largest in their totality(exports), Azerbaijan's priority inclination remains toward reducing avers onto global petroleum price fluctuations by diversifying its economy.

### **1.2.2.Imports.**

Following independence, Azerbaijan faced challenges in rebuilding its economy and infrastructure after the collapse of the Soviet Union. Initially, the country heavily relied on imports for essential goods and services to meet domestic demand (Grant, 2018). However, over time, Azerbaijan has taken steps to diversify its import sources to reduce dependence on a limited number of trading partners. This has been driven by a desire to enhance economic resilience and reduce vulnerabilities associated with over-reliance on certain markets (Abbasov, 2021).

Figure 2 demonstrates that tendency of imports of Azerbaijan in USD. At the beginning of the sovereign years, countries generally imported necessities for providing citizens of all category. Unlike the exports, the imports show constant increase over the years up until 2013; however, during the 2007–2009 period due to the financial crisis, a decrease in the graph is visible. Since 2013, there has been a clear downfall in terms of imports due to the same reasons as with exports, which is devaluation. Nevertheless, after 2017, the volume and value of imports increased as the economy of the country grew and tried to diversify. Considering overall economic and financial conditions during COVID-19, it is no surprise that after 2019, a drop in both imports and exports was seen. During the pandemic, due to restrictions all around the world, transportation of goods and providing services became challenging, which

resulted in an overall economic downshift, including a decline in trade. Following that, Russia and Ukraine went to war, and the global supply chain was severely disrupted.

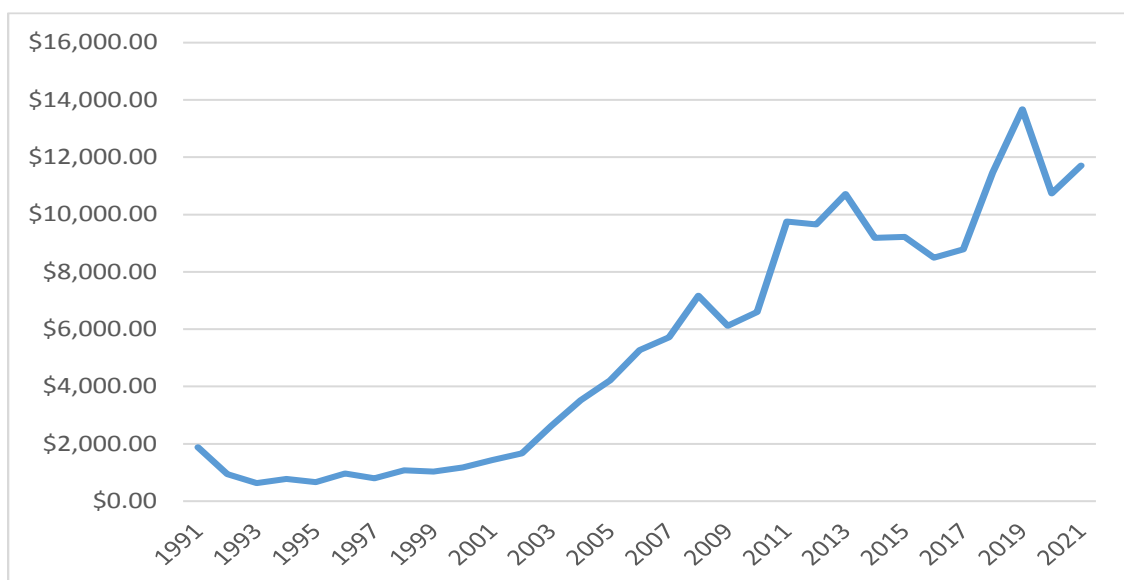


Figure 2. Dynamics of Foreign Import Relations of Azerbaijan Republic

There has been a shift in the composition of imports in Azerbaijan, with a growing focus on intermediate and capital goods. As Azerbaijan aimed to develop its non-oil sectors and promote economic diversification, there has been an increased demand for intermediate goods for production processes and capital goods for infrastructure development (E. Cornell, 2018). This shift reflects the country's efforts to invest in domestic production capacities and reduce dependency on imported finished goods.

Azerbaijan has pursued trade liberalization and integration into regional and international trade frameworks since gaining independence. The country has undertaken measures to reduce trade barriers, streamline customs procedures, and improve trade facilitation measures to promote international trade. Azerbaijan has also sought to diversify its trading partners beyond traditional markets, such as the European Union, Russia, and Turkey, and explore new markets in Asia and the Middle East (E. Cornell, 2018). This reflects the country's efforts to expand its trade horizons and tap into new opportunities for trade and economic cooperation.

It's important to note that import trends can be influenced by various factors, including changes in global economic conditions, government policies, technological advancements, and geopolitical developments, among others. The above tendencies are based on the available literature and may evolve over time as the country's economic landscape continues to evolve.



### 1.3.How important warring parties were for Azerbaijan in terms of imports.

#### 1.3.1.Russia.

Available literature points out that Azerbaijan has had substantial commercial dealings with Russia sought eagerly by both states that are interwoven through an intimate geographic location, ancient history, economic ties and linguistic similarities see (Abbasov,2021; E.Cornell ,2018). During Soviet era trading provisions were cemented that inform modern trade linkages. Azerbaijan’s passage to sovereignty was accompanied by market interruptions hence why it still depends heavily on Russian goods and services for key sectors(e.g., oil, power, and agriculture)(E.Cornell ,2018). The two countries have a ready flow of commodities facilitated by Russia well established transport management system involving pipelines, railways and roads all connected seamlessly with Azerbaijan(Abbasov,2021). More broadly a shared historical background has positively affected the nations' business linkages, as per studies(E.Cornell 2018). That being said Azerbaijan wants to narrow down its reliance on Russian goods as much as possible- working towards that through nonexclusive pursuit of new markets in different continents and bolstering trade relationships across borders(eg.,Abbasov,2021). Nevertheless, analysis from Table 1 indicates its dependence on Russian companies for imports with over sixty percent of critical resources provided. The following chapters will explore how imports from Russia had a substantial impact on critical supplies during wartime. This dependency ultimately resulted in higher inflation rates which inflated costs and significantly raised prices for essential food items that were more than doubled in price. (Azerbaijan | Data, n.d.).

Commodities	Quantity	Value, thsd. US dollar	Share in Overall Import
Wheat, thsd. tons	1094.2	\$ 315,191.70	95.3%
Wheat flour, tons	3478.3	\$ 1,403.80	98.7%
Margarine, other nutrient mixtures, tons	17819.1	\$ 27,353.30	77.0%
Sausages of meat and analogical products, tons	4268.2	\$ 11,063.40	76.7%
Chocolate and chocolate products, tons	20438.8	\$ 53,584.00	70.4%
Natural sands, tons	64753.4	\$ 3,052.50	94.7%
Quartz, tons	23665.9	\$ 1,955.50	71.3%
Mineral fertilizers, tons	103870	\$ 30,795.50	79.9%
Coke of coal, tons	25254.6	\$ 3,409.50	99.2%
Electric energy, mln. kW.h	103.7	\$ 4,180.70	63.0%
Longitudinal sawn timber, thsd. cubic metre	888.1	\$ 120,569.40	97.2%
Sticky veneer, thsd. cubic metre	72.6	\$ 32,874.50	94.9%
News print, tons	1868	\$ 892.10	100.0%
Sanitary and hygienic articles of paper and paperboard, tons	8655.4	\$ 11,566.70	70.0%

Table 1. Main Commodities Imported from Russia.

### 1.3.2.Ukraine.

As far as imports go, Azerbaijan's relationship with Ukraine lacks significance over time. The insights provided in recent literature by Abbasov (2021) and E. Cornell (2018) show that their trade relations are very limited in scope; thus faring relatively low in volume when it comes to imports from Ukraine into Azerbaijani markets mainly due to Ukrainian geographic distance from there accompanied by deficient transportation infrastructure hampering deliveries that would stimulate economic growth through increased international trade between them both.

Predictable enough, these factors have constrained trade activities within this region where Russia & Turkey constitute more critical commercial partners than occasional collaborations seen with Ukrainian businesses (Abbasov, 2021 & E.Cornell, 2018).

Consequently , there genuinely appears to have missing historical or cultural ties or similarities analogous to those shared between Azerbaijani people & Russians rather than Ukrainians. Although Ukraine did spend time in the same federation as Azerbaijan under Soviet Rule, those links are far from being robust( Cornell &E.,2018).

Ukraine has not been a significant trading partner for Azerbaijan in terms of imports, as evidenced by the limited trade relations and volume of imports between the two countries. Azerbaijan has been diversifying its import sources to reduce dependence on any single country, including Ukraine, and exploring trade opportunities with other countries for greater economic resilience.

Table 2 shows most dominant imports of Azerbaijan which are mainly bought from Ukraine. Although there are certain goods that are commonly used (Poultry, bovine animals etc.) generally it is easy to find substitutes for those type of commodities if needed.

(Azerbaijan | Data, n.d.).

Commodities	Quantity	Value, thsd. US dollar	Share in Overall Import
Meat of bovine animals, tons	3615.6	\$ 15,044.40	67.4%
Poultry meat and its additional products, tons	20975.8	\$ 27,230.50	65.9%
Tobacco, tons	4467	\$ 65,284.00	85.9%
Cigarettes, mln. units	482.7	\$ 12,093.60	80.9%
Granite, other monumental or building stone, tons	6364.2	\$ 1,676.30	64.9%

*Table 2. Main Commodities Imported from Ukraine*

## 1.4.How important warring parties were for Azerbaijan in terms of exports

### 1.4.1.Russia.

In terms of exports, Russia is an important trading partner for Azerbaijan, as evidenced by the extensive literature on Azerbaijan-Russia trade relations. Shared historical and cultural ties

dating back to the Soviet past between Azerbaijan and Russia led to strong commercial ties between the two countries. Common language, cultural similarities and historical ties facilitated trade and economic cooperation, and created favourable conditions for Azerbaijani exports to Russia (Aliyev, 2019 & Gafarova, 2020). Geographical proximity and properly-advanced transportation infrastructure have also played a big position in improving exchange of goods between Azerbaijan and Russia. The geographical location of Azerbaijan allows for quite less complicated transportation of products and offerings to Russia, making it a natural trading companion for Azerbaijan (Gafarova, 2020). Additionally, Russia has been a first-rate market for Azerbaijani oil and gasoline exports. As Azerbaijan is a big oil and gas manufacturer, Russia has been a critical export destination for Azerbaijani electricity sources. The electricity change among Azerbaijan and Russia has been a key factor in their bilateral trade family members, contributing to the general alternate volume between the two countries (Aliyev, 2019; Gafarova, 2020). It's vital to notice that Azerbaijan has been diversifying its export markets to reduce dependence on various countries, inclusive of Russia. Azerbaijan has been actively exploring new markets and alternate possibilities with other nations in Asia, Europe, and the Middle East to decorate its economic resilience and decrease vulnerability to disruptions in exchange flows (Aliyev, 2019). Russia has been a critical buying and selling partner for Azerbaijan in terms of exports, facilitated with the aid of historical, cultural, geographical, and electricity-associated factors. Azerbaijan has been diversifying its export markets, but Russia has remained a giant vacation spot for Azerbaijani exports, particularly in terms of Petroleum coke and agriculture merchandise. According to Table 3, Russia is not only a massive market for Azerbaijan's oil and gas exports, but also for its agricultural products. It is well known that the majority of Russia has a colder climate, resulting in a low potential for natural grows of goods such as potatoes, vegetables, fruits, etc. Historically and traditionally, the Azerbaijani population has been cultivating that exact type of goods locally, and the country's export volume has increased over time as a result of easy transportation and a suitable market.

Commodities	Quantity	Value, thsd. US dollar	Share in Overall Export
Potatoes, tons	85412.2	\$ 38,476.60	96.0%
Fresh vegetables, tons	160924.5	\$ 175,896.00	97.8%
Fresh fruits, tons	305999	\$ 326,482.14	80.9%
Fruit juice and vegetables, tons	6827.5	\$ 9,383.60	60.7%
Natural grape wine and grape juice, thsd. dkl.	217.8	\$ 2,549.60	64.4%
Bentonite, tons	148469	\$ 8,395.70	86.1%
Petroleum coke, tons	176328.3	\$ 16,531.10	65.2%

Table 3. Main Commodities Exported to Russia

#### **1.4.2.Ukraine.**

According to literature on Azerbaijan's trade relations with Ukraine, Ukraine has been a moderately significant trading partner in the context of export diversification efforts for Azerbaijan. Over the years, the Ukrainian market has been an important destination for Azerbaijani exports, and bilateral trade between the two nations has exhibited positive trends (Hasanov, 2018; Mamadzhanov, 2019).

Azerbaijan's and Ukraine's historical, cultural, and economic ties have facilitated their commercial relations. Common cultural and historical backgrounds, in addition to historical ties from their shared Soviet past, have facilitated economic cooperation (Mamadzhanov, 2019).

Geographical proximity and a well-developed transportation network have also contributed to the expansion of trade between Azerbaijan and Ukraine. The proximity of Azerbaijan and Ukraine makes transportation of goods and services relatively simpler, which has facilitated trade between the two nations (Hasanov, 2018).

In addition, Azerbaijan has been diversifying its export markets to reduce its reliance on a single nation, such as Ukraine. Azerbaijan has been actively exploring new markets and trade opportunities with other nations in Asia, Europe, and the Middle East in an effort to increase its economic resilience and reduce its vulnerability to disruptions in trade flows (Mamadzhanov, 2019).

Notable components of Azerbaijan's exports to Ukraine have included agriculture, machinery, and chemicals. These sectors have made substantial contributions to the overall trade volume between Azerbaijan and Ukraine, demonstrating the economic complementarity and trade potential of the two nations (Hasanov, 2018; Mamadzhanov, 2019).

As a result of ancient, cultural, geographical, and economic elements, Ukraine has been Azerbaijan's maximum critical export trading associate. Azerbaijan has been diversifying its export markets; however, Ukraine has remained a vital market for Azerbaijani exports, especially in sectors along with agriculture, equipment, and chemical products. In Azerbaijan's efforts to diversify its exports, Table 4 affords a further argument for Ukraine's

significance.

Commodities	Quantity	Value, thsd. US dollar	Share in Overall Export
Tea, tons	280.8	\$ 2,109.10	24.8%
Kerosene fuel for jet engine, tons	8758	\$ 4,995.60	10.1%
Oil and smearing, tons	8665.8	\$ 7,102.00	28.4%
Isolated wire and cable, tons	99.4	\$ 711.90	14.2%

Table 4. Main Commodities Exported to Ukraine

## 1.5.Challenges in expanding trade relations.

**Limited Diversification of Export Products.** The limited diversity of Azerbaijan's export products can pose obstacles to expanding trade relations with other nations. Azerbaijan's economy has historically relied heavily on oil and gas exports, making it susceptible to fluctuations in global oil and gas prices, market demand, and geopolitical dynamics (Azerbaijan | Data, n.d.). This can hinder Azerbaijan's ability to diversify its export portfolio and explore new markets, which may be essential for expanding trade relations and reducing overdependence on a single sector.

In addition, the lack of export product diversification can negatively impact Azerbaijan's competitiveness on international markets. As other nations also produce and export comparable oil and gas products, Azerbaijan may face intense competition and price volatility, making it difficult to expand trade relations and maintain a positive trade balance.

To overcome this obstacle, Azerbaijan may need to diversify its export products and investigate new sectors with high international trade potential. This may include investing in non-oil and gas sectors, such as agriculture, manufacturing, and services, and developing products with added value and competitive advantages on global markets. Diversifying the export portfolio can assist Azerbaijan in reducing its sensitivity to fluctuations in oil and gas prices, enhancing its competitiveness in international trade, and broadening its trade relations with a wider variety of nations.

**Geographic Proximity and Transportation Infrastructure.** Inadequate trade infrastructure and logistics can also hinder the expansion of Azerbaijan's trade relations. Effective trade infrastructure, such as transportation networks, ports, customs procedures, and trade facilitation measures, is crucial for facilitating efficient and cost-effective trade flows (UNCTAD, 2020). Inadequate infrastructure and logistics for international trade can result in delays, increased costs, and diminished competitiveness.

Landlocked Azerbaijan faces transportation difficulties due to its reliance on its neighbours for access to international markets. The availability and quality of transportation networks, such as roads, railways, and ports, can have an effect on the productivity and competitiveness of Azerbaijan's trade. Inadequate transportation infrastructure can result in higher transportation costs, delays, and potential disruptions in trade flows, limiting a nation's ability to expand its trade relations with distant markets.

Furthermore, cumbersome customs procedures and trade facilitation bottlenecks can hinder efforts to expand trade. Lengthy and intricate customs procedures, bureaucratic obstacles, and insufficient trade facilitation measures can increase the time and cost of trading, thereby diminishing Azerbaijan's attractiveness as a trading partner. This can make it difficult to establish and maintain trade relations with other nations, especially those with more effective trade facilitation measures.

To address these challenges, Azerbaijan may need to invest in modernizing its trade infrastructure, including its transportation networks, ports, and customs procedures, in order to increase trade efficiency, decrease trade costs, and enhance its international trade competitiveness. This can include modernizing customs processes, simplifying trade procedures, enhancing logistics and transportation networks, and adopting best practices on trade facilitation. Such measures can assist Azerbaijan in enhancing its trade environment and expanding its trade ties with other nations.

**Tariffs and Non-Tariff Barriers.** Non-tariff barriers (NTBs) to exchange pose an additional impediment to the expansion of Azerbaijan's trade members of the family. Non-tariff obstacles are regulatory, technical, and administrative measures which can impede exchange despite the absence of tariffs or customs responsibilities. NTBs consist of, amongst different things, product requirements, certifications, licensing requirements, quotas, and technical policies (Azerbaijan barriers can create extra expenses, delays, and uncertainty in worldwide trade, and can have a disproportionate effect on smaller or much less evolved economies, along with Azerbaijan. Compliance with complicated and diverse NTBs can be time-consuming, expensive, and require specialised understanding, which may be tough for smaller organizations and exporters. In addition, nations may also use NTBs as protectionist measures to safeguard their home industries, that could further restrict Azerbaijan's admission to foreign markets and obstruct efforts to extend trade. Azerbaijan has to make concerted efforts to enhance its regulatory environment, align its standards and guidelines with worldwide norms, and streamline its administrative approaches in order to overcome NTBs. This might also

contain increasing regulatory transparency, streamlining certification and licensing methods, enhancing product standards, and engaging in international harmonization tasks.

Strengthening institutional capacities and regulatory frameworks can assist Azerbaijan in overcoming non-tariff boundaries and facilitating trade with different international locations.

**Lack of Market Information and Access.** The loss of marketplace statistics and to get an admission is another barrier to Azerbaijan's growth of exchange relations. Information available on the market, which include demand, supply, prices, policies, and marketplace tendencies, is important for organizations to make informed decisions regarding capability export opportunities. Accessing accurate and contemporary marketplace facts can be tough, particularly for small and medium-sized firms (SMEs) with restricted assets and international alternate enjoy. Lack of market entry can also prevent Azerbaijan from increasing its exchange family members. Accessing new markets regularly necessitates navigating problematic trade rules, customs approaches, price lists, non-tariff limitations, and cultural differences. In addition, Azerbaijani companies may additionally lack the networks, connections, and marketplace intelligence necessary to become aware of and attain ability customers, distributors, and companions in worldwide markets. The government, business associations, and other stakeholders must collaborate to address the challenges posed by a dearth of market information and access. This may involve initiatives like:

- The government and relevant agencies can invest in research and data collection to provide businesses with accurate and current information about target markets, including demand, competition, regulations, and trade policies. This can be accomplished through market research reports, international trade missions, and partnerships with international trade organizations.
- Trade promotion and facilitation: The government can facilitate market access by simplifying trade procedures, reducing tariffs and non-tariff barriers, and providing businesses with support services such as export promotion programs, trade missions, and business matchmaking events. This may also involve negotiating and implementing trade agreements that grant Azerbaijani products preferential market access.
- Through training programs, workshops, and seminars on international trade, export procedures, market research, and market entry strategies, the capacity of Azerbaijani businesses to understand and navigate international markets can be enhanced.

Government agencies, business associations, and international trade organizations can facilitate this.

- Establishing networks and partnerships with foreign counterparts, such as business associations, chambers of commerce, and industry groups, can give Azerbaijani businesses access to market information, contacts, and opportunities. By facilitating business-to-business (B2B) gatherings, trade fairs, and networking events, the government can support such initiatives.

**Political and geopolitical factors.** These variables can include diplomatic relations, trade disputes, sanctions, and geopolitical tensions, all of which can influence trade policies, regulations, and market access.

Trade disputes with other nations are a further political factor that can impact trade relations. Trade tensions and disputes can result from disagreements over trade policies, tariffs, and non-tariff barriers, resulting in reduced market access and trade disruptions. This can present obstacles for Azerbaijani companies seeking to expand trade relations with nations embroiled in trade disputes.

Azerbaijan's trade relations may also be affected by geopolitical factors such as shifts in regional or global political dynamics. Changes in key trading partners' alliances, trade agreements, or political regimes can impact trade policies, regulations, and market access. These alterations can create uncertainty and difficulties for Azerbaijani companies seeking to establish or expand trade relations with these nations.



## **Chapter 2. Initial trade balance reflection of phenomenon at the start of Russian-Ukrainian war**

### **2.1. General insight about COVID-19 impact on trade balance**

#### **2.1.1. Oil and Gas sector.**

As previously noted, the export of crude oil, gas, and petroleum products comprises over 90% of the total export and has been significantly impacted by the Covid-19 pandemic. Since 2016, Azerbaijan has become a member of OPEC+ and has collaborated with other key members of OPEC and OPEC+ to regulate oil prices in the market by controlling the volume of oil being sold. Examining the broader market conditions can provide insight into the performance of oil and gas exports conceptually amidst the pandemic. Firstly, general information about OPEC will give insight to further process.

**OPEC and OPEC+.** The Organization of Petroleum Exporting Countries (OPEC) is an intergovernmental organization comprising 14 member states. Collectively, these countries exercise control over 44% of global crude oil production and 73% of "proven" crude oil reserves (OPEC, 2021). The Organization was founded in 1960 with the aim of harmonizing and consolidating the oil policy of its constituent states, with a particular emphasis on guaranteeing the stability of oil prices in the global marketplace.

OPEC's organizational framework is founded upon a system of quotas. The production level or quota of each member state is subject to periodic review and modification. The determination of production quota is contingent upon various factors such as a country's oil reserves, production capacity, and economic and political interests. The quota system serves the objective of ensuring that the production level of each member state is proportionate to its share in the worldwide oil market, thereby upholding the stability of the global oil market.

The OPEC Plus accord represents the most recent occurrence that was implemented in 2016. The accord encompasses a total of 24 nations, comprising the initial 14 constituent states of the Organization of the Petroleum Exporting Countries (OPEC) and an additional 10 non-OPEC nations, namely Russia, Kazakhstan, Mexico, and Azerbaijan. The primary objective of the OPEC Plus accord is to achieve stabilization of the worldwide petroleum market through the regulation of production levels and imposition of supply constraints. According to the International Energy Agency (IEA) in 2021, the market has been stabilized effectively by the agreement, resulting in a consistent increase in oil prices since 2017 (IEA, 2021).

Compliance with production quotas stands out as a crucial challenge confronting OPEC and OPEC Plus. It is possible for member states to surpass their allocated quotas, resulting in a surplus of oil in the market and consequent reduction in oil prices. Conversely, certain nations may exhibit a preference for underproduction, resulting in a dearth of supply within the market and subsequent escalation of petroleum prices. Throughout its history, the organization has employed a range of strategies aimed at promoting adherence to established protocols. These measures have included the use of social influence, surveillance technologies, and punitive measures.

The nation's belonging to OPEC and OPEC Plus hold a crucial position in the worldwide oil industry, as they exercise control over a substantial proportion of the planet's crude oil reserves and production. The primary objective of the organization is to uphold stable oil prices in the global market through the implementation of quotas and production control mechanisms. Notwithstanding persistent challenges, such as adherence to production quotas, the organization has effectively fulfilled its role in stabilizing markets and bolstering the general stability of the global economy.

The COVID-19 pandemic has had a substantial impact on the worldwide economy, encompassing the oil and gas industry. The implementation of quarantines and travel restrictions by various countries globally has resulted in a significant decline in the demand for oil and natural gas. The ongoing price competition between Saudi Arabia and Russia has contributed to the exacerbation of the decrease in demand, ultimately resulting in a reduction of oil prices.

**Covid-19 and Oil markets.** As per the U.S. Energy Information Administration's data, there was a decline of approximately 9.3 million barrels per day in the worldwide demand for oil in the year 2020. According to the Energy Information Administration (EIA) report of 2021, the most substantial reduction in volume was observed in April, with a decline of 25 million barrels per day. The reduction in market demand has resulted in a surplus of oil supply, thereby causing a decrease in the prices of oil. The month of April in the year 2020 witnessed a significant decline in oil prices, reaching the lowest levels in several decades. The West Texas Intermediate (WTI) crude oil price in the United States even experienced a brief dip below zero, as reported by the Energy Information Administration (EIA) in 2021.

To mitigate the effects of the COVID-19 pandemic on the oil and gas industry, OPEC and its affiliated parties, known as OPEC+, entered into a sequence of accords to curtail production in April of 2020. As per the accord, the nations involved concurred to curtail their production

by 9.7 million barrels per day, and subsequently, this decision was prolonged until April 2022 (OPEC, 2021). The implementation of production cuts has contributed to the stabilization of the oil market and facilitated a gradual upsurge in oil prices.

OPEC has established a monitoring mechanism to verify adherence to the production reduction conditions. The Joint Ministerial Supervisory Committee (JMMC) was instituted with the purpose of overseeing the execution of production reductions and assessing prevailing market circumstances. The production level of JMMC is subject to regular review, and adjustments to the production quota may be proposed as deemed necessary.

It is noteworthy that the COVID-19 pandemic has exerted a substantial influence on the oil and gas industry, resulting in a decrease in demand and a surplus of oil in the market. In response to the crisis, OPEC and its allies implemented production cuts in order to stabilize the market and mitigate the impact of the pandemic on the global economy. The implementation of production reduction measures effectively achieved market stabilization and facilitated the gradual upsurge of oil prices.

The outbreak of the epidemic has resulted in a reduction in the demand for oil and natural gas, thereby causing a decline in the export earnings and government revenues of Azerbaijan. As per the report by the National Oil Company of the Republic of Azerbaijan (SOCAR), there was a decline of 4.8% in the oil production of Azerbaijan in 2020 as compared to the preceding year. Additionally, the natural gas production also witnessed a decline of 7.4% during the same period (SOCAR, 2021). The primary factor contributing to the reduction in output is the decrease in the market demand for petroleum and natural gas, which is linked to the global health crisis. The reduction in output has resulted in a decline in Azerbaijan's export earnings, given its significant reliance on the exportation of oil and gas.

The epidemic's effect on Azerbaijan's export earnings turned into compounded by way of the reduction in oil and gasoline prices, alongside the decline in manufacturing. The value of Azeri Light crude oil, which serves as a trendy for the export of Azerbaijani oil, reached its lowest factor in the past two decades for the duration of the month of April. The decrease in charges may be attributed to a confluence of things, comprising a reduction in demand and a pricing battle between Saudi Arabia and Russia. Azerbaijan has implemented numerous measures to alleviate the effect of the epidemic on its oil and gas region, along with the implementation of cost-saving measures and the discount of manufacturing levels. Azerbaijan became a signatory to the OPEC production reduction agreement in April 2020, committing to a discount of 164,000 barrels in line with day (BP, 2021). The curtailment of production

contributed to market stabilization and facilitated a sluggish upswing in petroleum costs. Amidst the pandemic, the Azerbaijani government has applied numerous measures to offer help to the oil and gas sector, together with tax reductions and economic aid to the State Oil Company of Azerbaijan Republic (SOCAR). Furthermore, the governmental authorities have initiated an approach aimed at broadening the monetary base and mitigating reliance at the hydrocarbon industry (World Bank, 2021).

The COVID-19 pandemic has had a notable influence on the oil and gas industry of Azerbaijan, resulting in a reduction in production, export earnings, and government revenues. Azerbaijan has implemented various measures to alleviate the repercussions of the epidemic, such as decreasing production capacities, enacting cost-reducing strategies, and providing support to the oil and gas industry. The enduring consequences of the epidemic on Azerbaijan's oil and gas industry are presently indeterminate.

### **2.1.2. Non-oil and gas sector.**

The economy of Azerbaijan, consisting of its non-oil and gas sectors, has been notably laid low with the Covid-19 pandemic. Azerbaijan is currently engaged in efforts to beautify monetary diversification, lower its reliance on the oil and gas enterprise, and inspire the increase of non-oil and fuel exports. The epidemic has had a destructive impact at the aforementioned undertaking's, resulting in a reduction in exports that are not associated with the oil and gasoline industry. As per the statistics provided by way of the State Customs Commission of Azerbaijan, there has been a decline of 8% in non-oil and gasoline exports within the 12 months 2020 as compared to the previous 12 months. The number one cause for the decrease become predominantly attributed to the reduction in the marketplace demand for non-oil and gasoline commodities, which turned into related to the pandemic, further to the disturbances within the supply chain and transportation. The reduction within the quantity of exports has led to a concomitant decline in Azerbaijan's foreign money income, that's a critical source of support for its economy, given the heavy reliance on exports. The outbreak has had an impact on numerous domain names of Azerbaijan's economy, encompassing agriculture, enterprise, and tourism. The agricultural industry, which constitutes a full-size portion of non-oil and fuel exports, is encountering obstacles in its supply chain and transportation structures, ensuing in a discount in its export volume. The business sector, encompassing each manufacturing and production, downgraded in terms of exports as, supply chain interruptions and dwindled call for from alternate buddies. Tourism is an essential contributor that supports non-oil and gas exports; hence its decline due to ongoing epidemics significantly impacts Azerbaijan's economy negatively. To minimize further spread of

COVID-19 transmission within its borders, a series of travel restrictions coupled with border closures were imposed by Azerbaijan's government leading to reductions in tourist visits dramatically reducing income generated from this sector affecting auxiliary sectors such as retail along with hospitality even more severely. To cope up with this challenge timely, multiple governmental responses ranging from granting tax incentives plus providing financial assistance towards companies critically hit have been rolled out. Promoting local products globally through providing both technical plus monetary assistance towards committed exporters similarly achieved results aided greatly (Ministry of Economy, 2021). Undoubtedly though due to these outbreaks international trading patterns are disrupted hindering import demands resulting more expenditures following delayed logistical issues arising from restricted transportation also being significantly affected. According to the records of the State Customs Commission of Azerbaijan, the overall import volume decreased by 9.4% in the year 2020 compared to the previous year. The main reason for the decline can be attributed to a 10.2% decline in imports of non-oil and non-natural gas related goods. A decrease in imported goods has resulted in reduced consumer spending and reduced profits for businesses that depend on imports. The impact of the pandemic has been felt in various sectors of the Azerbaijani economy, including those that rely heavily on imported goods such as retail trade and the construction industry. The imposition of border closures and travel restrictions had a disruptive impact on the supply chain, resulting in delays and increased costs for imported goods. The decrease in imports affected the supply of some goods in the market, resulting in higher prices and a decline in consumer demand. The Azerbaijani government has implemented several measures to alleviate the impact of the epidemic on non-oil and gas imports. These measures include providing financial assistance and tax reductions to companies that have been affected. The Ministry of Economy (2021) has initiated a programme aimed at bolstering domestic production, extending financial and technical aid to indigenous enterprises, and invigorating the present production of imported commodities.

## **2.2. Adaptation process and tendency of trade relations.**

The Azerbaijani government announced a state of emergency in March 2020, which entailed limitations on mobility, border closures, and cessation of global air and rail transportation. The authorities have implemented measures such as the closure of educational institutions, prohibition of large-scale events, and the adoption of social distancing protocols. The aforementioned measures are intended to decelerate the transmission of the virus and forestall the overburdening of the healthcare infrastructure.

The government of Azerbaijan has implemented several economic measures aimed at alleviating the impact of the epidemic on both businesses and individuals. The government offers financial aid to impacted businesses, such as tax incentives and loans, and implements strategies to aid the most susceptible segments of the population, such as retirees and households with limited financial resources.

Furthermore, the government of Azerbaijan initiated a nationwide vaccination drive in January of 2021. The procurement of vaccines by the government from diverse sources, such as China and Russia, and their subsequent distribution to the populace without any cost is a common practice. According to Our World data in April 2023, the COVID-19 vaccine has been administered to over 4 million individuals in Azerbaijan, representing approximately 40% of the country's population.

The Azerbaijani Government has implemented a comprehensive response to the COVID-19 pandemic with the objective of mitigating the spread of the virus and minimizing its impact on both public health and the economy. Despite the ongoing epidemic, governmental interventions have effectively mitigated the transmission of the virus and provided assistance to impacted enterprises and individuals.

One of the primary strategies implemented by the government involves the provision of monetary aid to companies that have been impacted. The proposed measures encompass reductions in tax rates and provision of loans at favorable interest rates to enterprises encountering economic challenges as a result of the COVID-19 outbreak. Furthermore, the government has initiated a program for direct remittance to underprivileged households in order to assist them in managing the financial repercussions of the pandemic.

The governmental authorities have implemented measures to sustain commercial operations amidst the ongoing pandemic. During the state of emergency in March 2020, the government declared that trade operations should persist, provided that specific security agreements were met. This measure serves to guarantee the continuity of business operations and the economy in the event of a pandemic.

Furthermore, the Azerbaijani Government has implemented measures to provide assistance to the nation's exports amidst the ongoing pandemic. Specifically, the government extends financial assistance to exporters through measures such as subsidized loans and reduced tariffs on select commodities. The objective of this initiative is to sustain the nation's export

operations amidst instances of worldwide economic instability and to facilitate enterprises in their pursuit of global market penetration.

The measures implemented by the Azerbaijani Government to mitigate the economic impact of the COVID-19 pandemic on businesses and trade activities are comprehensive and designed to provide support. Despite the ongoing epidemic, governmental interventions have provided assistance to enterprises and maintained economic operations amidst challenging circumstances.

Since the onset of 2020, the government of Azerbaijan has exhibited prompt action in addressing the swift proliferation of the COVID-19 pandemic in numerous nations across the globe. In accordance with the directive of President Ilham Aliyev, specialized headquarters have been established under the purview of the Cabinet of Ministers to conduct a comprehensive analysis of the ramifications of the pandemic, execute measures for social distancing, and mitigate the adverse effects on the economy. A roadmap has been developed for the short- and medium-term implementation of the Presidential Order aimed at mitigating the adverse effects of the pandemic and the resulting volatility in global energy and stock markets on the economy, macroeconomic stability, employment, and entrepreneurship in the nation. The aforementioned plan encompasses three distinct domains:

- Support to the economic growth and entrepreneurship
- Support to the employment and social welfare
- Macroeconomic and financial stability

The COVID-19 pandemic has had a significant impact on foreign trade, as various sectors of the economy have encountered challenges. Amidst the pandemic, heightened levels of ambiguity in the commercial and financial sectors resulted in a decline of the economies of significant trade allies and a decrease in prospective transactions. As a result, there was a decline in both the volume and value of foreign trade turnover. The Azerbaijani government has taken swift and proactive measures to prevent a decrease in non-oil exports by implementing supportive and stimulating policies.

Incorporating the sales mechanism of goods bearing an export mark into the Tax Code, whereby a zero (0) VAT rate is applied, is a measure that aligns with global practices and can potentially stimulate the export of non-oil products. This initiative could confer a competitive pricing edge to domestic products. The implementation of customs duty exemptions for items listed as relevant is a strategy aimed at enhancing the competitiveness of domestic industries

that rely on imported and non-domestically produced raw materials and intermediate goods. This measure is intended to bolster the competitiveness of exported products. The analysis conducted on various sectors reveals that certain goods and products that are exported lack a comparative advantage in terms of their domestic production. The procurement of these unprocessed materials and intermediate goods and their integration into the manufacturing process will enhance the cost competitiveness of the exported commodity in international markets.

Implementing strategies to encourage domestic entrepreneurs to utilize specialized customs procedures and incentivizing measures can facilitate an increase in foreign orders. Ensuring the safeguarding of physical and traditional services exports from the adverse impacts of the pandemic is imperative to avoid the contraction of economic activity.

The legislative and enforcement processes in Azerbaijan exhibit reforms aimed at facilitating the country's shift towards an export-oriented production strategy. Prior to the onset of the pandemic, various incentivizing measures were instituted with the aim of augmenting productivity and facilitating entry into international markets. The diversification of foreign trade is a crucial prerequisite for ensuring the prosperity of both importers and exporters, as well as for maintaining macroeconomic stability over time. The diversification of imports holds equal importance to that of export diversification. The absence of diversification in imports has an adverse impact on the sustainable production and services of multiple sectors. The diversification of imports is equally important as the diversification of exports, with regards to both product variety and geographical distribution. The diversification of imports in terms of geography and products is primarily indicative of the quality of trade, rather than solely reflecting statistical growth in trade. Simultaneously, the diversification of imports has an impact on the diversification of exports. Several resolutions passed by the Cabinet of Ministers of the Republic of Azerbaijan, pertaining to modifications in the Commodity nomenclature of foreign economic activity of the Republic of Azerbaijan, import and export customs duty rates, as well as the Action Plan to prevent the spread of the coronavirus (COVID-19) pandemic and mitigate the resulting fluctuations in global energy and stock markets, have necessitated the implementation of customs duty exemptions on the relevant list. This measure aims to enhance the competitiveness of domestic industries that rely on imported and non-domestically produced raw materials and intermediate goods, while simultaneously promoting exports and increasing competitiveness.



In order to enhance the competitiveness of exports, it is imperative to procure raw material components that are both cost-effective and of superior quality. As per statistical data, the scope of imported commodities in Azerbaijan witnessed a surge of 20.6% in the year 2020 in comparison to the year 2015. The export operations' composition of the oil sector share encompasses commodity positions ranging from 2709 to 2715. The oil and gas sector exhibits a low level of diversification, with crude oil being the dominant commodity. However, despite this limitation, there has been a notable increase of 12.3% in the variety of goods that are exported. The underlying principle of the liberalization policy in global trade, including Azerbaijan's foreign trade, is not solely focused on augmenting consumer accessibility to less expensive goods, but also on expanding the magnitude and worth of exports to guarantee macroeconomic equilibrium. The diversification of imports in Azerbaijan is more extensive in terms of foreign trade participants, products, and geography, compared to the diversification of exports.

The outbreak of the COVID-19 pandemic has had an adverse impact on the export sector of Azerbaijan. The examination of the composition of commodities reveals the need for further reforms to enhance diversification. The significance of the diversification policy has consistently been underscored during the meetings presided over by President Ilham Aliyev. As per the report published by the State Statistics Committee of Azerbaijan, the earnings generated from the export of crude oil experienced a decline of 36.8% in the year 2020, amounting to 9.4 billion US dollars. Similarly, the revenues generated from oil products also witnessed a decline of 36.2%, amounting to 295.1 million US dollars. Similar observations can be made when examining the export of natural gas. The export earnings generated by natural gas in 2019 were valued at 2.4 billion US dollars. However, during the pandemic year, this amount experienced a decline of 7.4%, resulting in a total of 2.2 billion US dollars. Upon examination of statistical metrics, it is evident that the proportion of the processing industry's contribution to the exportation of the oil and gas sector is relatively minor. The institutional reforms constitute the primary principle of the reforms that are directed towards the advancement of the processing industry. In light of the various procedures and uncertainties inherent in the global economy, particularly with regards to the foreign oil market, a Decree was enacted to enhance the competitiveness of the State Oil Company of the Republic of Azerbaijan in the international arena. This was achieved through the improvement of its financial sustainability in the medium and long term, management, investment efficiency, and asset value, by means of enhancing the corporate governance system and business model.

The government has implemented measures to mitigate the impact of Covid-19 on export contractions, with the objective of promoting and bolstering export activity. The aforementioned assistance is expected to yield a favorable outcome in terms of expanding the range of exported goods. The onerous financial burden faced by entrepreneurs when attempting to penetrate foreign markets results in a reduction in their ability to compete on the basis of pricing. The provision of governmental assistance is expected to mitigate the deceleration of extant exports and enable the entry of unconventional commodities into international markets.

The Covid-19 pandemic was associated with a reduction in foreign orders, which in turn resulted in a 2.5% decline in the range of goods and products within the export portfolio. Based on the statistical data spanning from 2017 to 2019, as well as the quarterly outcomes of 2020, it can be observed that the non-oil export sector is primarily dominated by nine key driving products. The marginal alterations observed in the constituent elements of the nine driving commodities, ranging from 0.2 to 0.3 percent of the export basket, since 2017, coupled with the significant shift in the proportion of these commodities in exports by approximately 50 percent, serve as evidence of the elevated level of export concentration.

Based on historical statistical data, it can be observed that a limited range of commodities, which possess a significant proportion of exports, have experienced negligible alterations despite the impact of the pandemic. The primary objective of this study is to offer micro and macro assistance in order to mitigate the risk associated with the limited number of goods that serve as the primary drivers of exports within the export basket.

The adoption of strategies, ranging from the incorporation of novel approaches to the finalization of unrestricted commercial pacts, are efficacious measures employed in global application. Furthermore, the relaxation of regulatory restrictions in the commercial sphere and the promotion of fair competition among exporters are expected to facilitate the expansion of export varieties during the period following the pandemic. In order to enhance the proportion of small and medium-sized enterprises in the export market, it is recommended to offer affordable financial resources, export-oriented loans, and diverse support measures such as adhering to international quality standards and covering research and development expenses. These initiatives are expected to broaden the spectrum of export diversification in the aftermath of the pandemic.

The pandemic-induced export restrictions have led to significant challenges in the export sector, which may have long-lasting implications. However, it is anticipated that these

challenges will ultimately drive the promotion of free trade in the post-pandemic era. One of the primary obstacles to Azerbaijan's integration into the global trade market is the task of securing membership in trade and customs unions that offer favorable incentives and support.

The correlation between export diversification and economic diversification is direct. The emphasis on export diversification strategies as a means of attaining economic progress and expansion is associated with the process of international trade liberalization. In contemporary times, commodities that possess a comparative advantage are required to exhibit a competitive price edge and conform to established benchmarks of quality. The proclivity of the business environment in Azerbaijan towards innovative solutions, coupled with the utilization of knowledge-based models and inventions by commercial entities to discern products with a comparative advantage, is poised to expedite the process of diversification.

### **2.3. Impact of war and COVID-19.**

For clearly understanding effects of both Covid-19 and war between Russia and Ukraine on trade balance of Azerbaijan implementing simulation of existing data will be helpful. So, in this section of research paper I conducted simulation in statistical software program called R for getting insides about the impacts. First of all, what is R, how to use it and how our model works?

#### **2.3.1. Why R?**

R is a robust programming language and software platform utilized for statistical analysis and visualization. The platform offers a diverse array of resources and collections for the purposes of scrutinizing data, constructing statistical models, generating visual representations, and implementing machine learning algorithms. The following is a synopsis of the statistical applications of the R programming language.

The R programming language offers a wide range of functions that facilitate the execution of inferential statistical analyses. The methodology encompasses hypothesis testing techniques, namely t-tests, chi-square tests, ANOVA, and regression analysis. These assessments facilitate the process of making logical deductions and arriving at decisive outcomes regarding entire groups by utilizing data obtained from a subset of the population. R provides a wide range of options for data visualization, such as bar plots, histograms, scatter plots, line graphs, box plots, and other types of visualizations. The ggplot2 package offers a versatile and user-friendly syntax for generating customizable and high-quality visualizations suitable for publication.

Statistical modeling is a common application of R programming language. The software offers a range of packages that cater to various statistical analyses, including but not limited to linear regression, logistic regression, time series analysis, survival analysis, and clustering. The utilization of models facilitates comprehension of interconnections, prognostication, and recognition of patterns within datasets.

The widespread adoption of R within the statistical community can be attributed to its vast array of statistical functions and libraries, its adaptable nature, and the ongoing support provided by its active community. This tool finds extensive usage in the academic, research, industrial, and data science domains for a diverse set of statistical applications.

### **2.3.2. Data.**

The primary source of input for the simulation comprises data obtained from the official websites of the Azerbaijani government, namely the National Statistics and Costumes Committee. The data presented from this point forward has been modified and manipulated for the specific purpose of conducting multivariate regression analysis, and should not be considered in its original form. Samples obtained from the data have been included in the appendices. Appendix A presents a table containing import and export data for the Azerbaijan Republic spanning the years 1991 to 2022. Notably, the table includes additional columns indicating the presence of Covid-19 or War during the respective years. Appendix B and C respectively illustrate the monthly import trend of Azerbaijan over the years and the export trend during the period of 2011-2023 (first three months of 2023). The constraint at hand pertains to the accessibility of monthly trade balance data, thereby restricting the utilization of solely official information spanning approximately 13 years.

Following several stages of data manipulation (filtering the data including several stages of combining and separating unnecessary information and transferring main data to a single worksheet) the current draft data has been rendered fit for purpose and is now primed for use in simulation. Appendix D illustrates the appearance of the data in its final form prior to simulation. In total, 26 multivariate regression analyses were performed, encompassing yearly simulations of both imports and exports, as well as monthly simulations of imports and exports for each individual month. The data presented in Appendix D was extracted from the monthly dataset and subsequently imported into R without any further manipulation.

Another topic to be addressed pertains to the supplementary columns present in the dataset, which serve as binary indicators for two affected variables of interest. The initial dummy variable for war was incorporated in two manners, akin to the Covid-19 dummy. The variable

for the annual simulation of war is set to 1 exclusively for the year 2022, due to the outbreak of hostilities between the involved parties in February of that year. Similarly, the COVID-19 pandemic was publicly and officially declared to have commenced in February 2020. It is worth noting that the Covid-19 phenomenon is a significant variable for the year 2020 and beyond.

To mitigate the potential bias associated with the uncontrolled variable of January, we performed monthly simulations and observed a significant impact on the outcome. Data is collected on a monthly basis utilizing a consistent methodology; however, the process is somewhat intricate and the utilization of dummy variables yields greater precision. The appendices reveal that the war variable is only equal to 1 from February 2022 onwards, while on other occasions it is equal to 0. Analogous to a military training tool, the Covid-19 variable remains at a value of 0 prior to February 2020, and subsequently transitions to a value of 1.

### 2.3.3. Model.

The main goal in this simulation is to determine how the trade is affected, is it even significant in both import and export either positive or negative. In order to find the significance of the affection of war we also included Covid-19 to get inside if there were any affections of the pandemic on war. For this purpose, our model includes Covid-19 dummy, import/export result, war dummy variables and one element to represent all the other reasons that change the trade balance and error term. When putting it to the math, the formula of it may be represented as follows:

$$Y_t = \beta_0 + \beta_1 * COVID19_t + \beta_2 * WAR_t + \lambda_t + \epsilon_t$$

In this particular model,  $Y_t$  is the amount of export or import the country makes during time  $t$  depending on if the regression inputs were export or import.  $\beta_0$  is the intercept and refers to the value of the dependent variable  $Y_t$  when all of the independent variables are 0.  $\beta_1$  and  $\beta_2$  are the slopes or regression coefficients and represent the change in outcome  $Y_t$  when independent variables change 1 unit correspondingly.  $COVID19_t$  and  $WAR_t$  are independent variables and dummies in this case, that get 1 if the corresponding variable was present at time  $t$ , 0 otherwise.  $\lambda_t$  represents all other factors that can potentially affect the trade balance and for the simplicity of the model we include all of them into one variable. For the sole purpose of focusing on the two given phenomena we assume that  $\lambda_t$  to be 0 for this research.  $\epsilon_t$  is the error term and by definition is considered to be 0.

### 2.3.4. Simulation.

After having all the necessary data at hand and settling with the model we can finally start to emulate the practice. As mentioned, before we used R to for getting result and in the program the library called **readxl** is needed to perform the initial data reading process. After making data familiar with the program, it is time to code and getting results from the R. In order to get the output from the program series of codes need to be written for both yearly and monthly simulation of the research. The full R code about simulation process is written in the appendix which includes both yearly and monthly multivariate regressions.

For this model our null hypothesis will be War does not have any impact on trade balance of Azerbaijan and alternate hypothesis is war does have impact on Azerbaijani trade balance:

$$H_0 = \beta_2 = 0$$

$$H_1 = \beta_2 \neq 0$$

### 2.3.5. Results.

The final results of the R simulations can be confusing as we run 26 different regressions for the sole purpose so, here is the concise form of the results table:

		January	February	March	April	May	June
<b>Import</b>	COVID-19	252654 (127252)	169842 (167190)	166753 (124464)	-41690 (167949)	-30658 (170976)	131632 (134851)
	WAR	528806* (201202)	173377 (213870)	281594 (159215)	241024 (263125)	272721 (267868)	311476 (211270)
<b>Export</b>	COVID-19	886329 (478510)	-428015 (406965)	-273102 (1462510)	310486 (559694)	-829121 (495437)	-431984 (420259)
	WAR	431552 (682344)	1628297* (520592)	427910* (547385)	1676274 (876873)	2727472** (776201)	2014262* (658419)
<b>F statistics</b>	Import	11.32	2.32	6.73	0.46	0.60	3.18
	Export	2.21	5.65	4.54	3.49	6.19	4.90
	Observation	13	13	13	12	12	12

*Table 5. January to June, monthly simulation result*

		July	August	September	October	November	December
<b>Import</b>	COVID-19	-2442 (180763)	92689 (125671)	189860 (106570)	61733 (141523)	146274 (78416)	91325 (121090)
	WAR	227602 (283201)	453027 (196889)	360320 (166964)	325911 (221724)	305170 (122855)	481260 (189712)
<b>Export</b>	COVID-19	330236 (472453)	-530358 (419186)	-285176 (448201)	353593 (445537)	248948 (596985)	164693 (464163)
	WAR	2079822 (740191)	2557013** (656739)	2120105* (702196)	3225676** (698022)	-260065 (935295)	210700 (727203)
<b>F statistics</b>	Import	0.44	5.23	8.15	2.08	9.96	6.19
	Export	7.17	7.99	5.17	17.75	0.09	0.22
<b>Observation</b>		12	12	12	12	12	12

*Table 6. July to December, monthly simulation result*

	<b>Import</b>	<b>Export</b>
<b>COVID-19</b>	<b>7676</b> <b>(8289)</b>	<b>6212.3</b> <b>(2909.2)</b>
<b>WAR</b>	<b>20177</b> <b>(13886)</b>	<b>3321</b> <b>(4873.7)</b>
<b>F statistics</b>	<b>3.249</b>	<b>4.831</b>
<b>Observation</b>	<b>32</b>	<b>32</b>

*Table 7. Yearly simulation result*

Firstly, let's look through monthly multivariate regression result and get conclusion about it. Initially, import-wise we cannot seem to be having any significant results from simulation as there is only one 1 starred coefficient (\*) which is in overall very low level. As always, if there is 3 stars above coefficient it is statistically significant in 0.1%, 2 stars means 1% significance, 1 star means the result 5% statistically significant. If there is no stars or any other signs then

it means the statistical findings can be ignored. In case of imports on both Covid-19 and war impact there is only one significant output and it can be seen in war coefficient in January regression. Main reasons for this kind of result may be related to the facts that:

1. Importance of Ukraine in terms of import partner of Azerbaijan is not significant and can be substituted with other trade routes.
2. As we already discussed in the first chapter that significance of Russia as both import and export destination is undeniable for that reason the first clause does not apply to Russia. On the other hand, Russia exports to Azerbaijan is not affected as much as Ukraine. Russia has direct border with Azerbaijan unlike Ukraine so, the trade route is very short as well as over 100 years of having roads, pipelines and other infrastructures provide huge number of opportunities to trade even though Russia is currently a participant in a huge and long war.
3. The other side of the matter is trading with the eastern allies which are mainly China. The trade volumes between countries grow over the time so we can assume that as there are no sanctions with eastern partners currently, they can be substitutes to some countries in terms of mainly industrial products.

On the export side of the process the thing is different as, war impact of the simulation can be clearly seen. Out of 12 months that simulation conducted 7 months seem to be having significantly impact because of the war. The overall impact is described to be anywhere between 1.6mln to 3.2mln USD which is huge amount of export if we take into account Azerbaijani overall export trade numbers (see chapter 1):

1. The overall export values go up mainly because of the oil and gas sector. As the war continued, EU and USA sanctioned Russia and started to stop buying the Russian oil and gas products. Being the one of the main resources of oil and gas supplier having Russia out of the EU market created huge increase in oil prices. Oil and gas being main export of Azerbaijan (see chapter 1).
2. Secondly, as mentioned in the first clause, because of the losing huge supplier EU turned to other oil and gas suppliers around the region to get resource. Azerbaijan is one of the players in the gas market for EU as most of the gas exports goes to Italy. EU and Azerbaijan agreed on a contract to extend the relationships and increase to total export output of gas supply
3. On the other hand, it may not be as significant as the first two reasons, but being sanctioned around the EU, Russia start to buy more of non-oil and gas product of



Azerbaijan for the local market. This may be another factor that contributing upward trend in export of Azerbaijan.

## **Chapter 3. How the trade balance reflection of phenomenon settling down in long term.**

### **3.1. What if the war goes on for another period?**

#### **3.1.1. Future perspectives of trading with warring parties.**

One potential benefit of engaging in trade with conflicting parties is the possibility of economic opportunities for the adjacent nation. The provision of vital commodities, amenities, or philanthropic assistance to sustain impacted communities may be entailed. In certain instances, there exist prospects for reconstruction and infrastructure enhancement subsequent to the cessation of conflict.

The political ramifications of trading with belligerent factions can be significant. It is imperative for contiguous nations to contemplate their diplomatic ties and the plausible repercussions on the stability of the region. Achieving a harmonious equilibrium between economic interests and political considerations, such as endorsing global sanctions or promoting peace initiatives, is imperative.

The act of engaging in trade with belligerent factions gives rise to ethical concerns of a humanitarian nature. The neighbouring nations may have to evaluate the probable consequences of providing assistance to economies that are involved in conflicts, which could lead to unintentional facilitation of human rights violations or protraction of the conflict. The evaluation of humanitarian concerns and the well-being of populations impacted by a given situation should be conducted with utmost care and attention.

The act of participating in commerce with belligerent nations can have implications for a state's position within the global arena in the field of International Relations. The possibility exists that it could result in examination or censure from foreign countries, global institutions, or proponents of human rights. The evaluation of probable outcomes on a nation's standing and its diplomatic ties with other countries is of paramount importance.

Post-conflict transition can be facilitated by engaging in trade with the parties that were previously involved in the conflict. The act has the potential to facilitate the restoration of confidence, stimulate financial growth, and advance stability within the area. Nonetheless, the process of transitioning necessitates meticulous planning and contemplation of the sustainability of the long-term.

The act of engaging in trade with belligerent factions as a neighbouring nation entails a careful consideration of various factors, such as economic prospects, political intricacies, humanitarian issues, global diplomacy, and the enduring objective of ensuring regional stability. Thorough examination and contemplation of the particular context and circumstances of the conflict, as well as the interests and values of the adjacent nation, are necessary.

### **3.1.2. Alternative ways of minimizing the impact**

When addressing the ramifications of engaging in commerce with nations in conflict, an adjacent state may implement various strategies to mitigate any possible adverse consequences. The following strategies may be deemed worthy of consideration:

One strategy to mitigate dependence on nations engaged in conflict is to broaden the scope of trade partners. The act of broadening trade ties with foreign nations can potentially reduce a country's susceptibility to economic volatility and uncertainty that may arise from engaging in commerce with conflicting entities. Diversification can serve as a means of preserving stability and securing alternative markets for commodities and services.

Another potential strategy to mitigate the adverse effects of trading with countries in conflict is to enhance regional integration. This can be achieved by promoting greater economic cooperation among neighboring countries, which may serve as a protective measure. This may entail enhancing regional trade agreements, customs unions, or economic blocs. The promotion of intra-regional trade and cooperation among neighboring countries can potentially bolster their resilience and mitigate reliance on conflicting parties.

Next strategy to mitigate the impact of conflict is to prioritize trade in sectors that are less susceptible to its effects. The identification of industries or commodities that are not directly associated with the conflict can aid in preserving economic stability and fostering growth. The act of diversifying trade among sectors that are less affected by the conflict can serve as a means of mitigating potential disruptions and decreasing reliance on the conflicting parties.

Other potential course of action for neighboring countries is to establish and execute risk management strategies aimed at reducing the negative consequences of engaging in trade with countries embroiled in conflict. The process may entail evaluating and comprehending the probable hazards and susceptibilities linked with said commerce, and formulating backup strategies to tackle any interruptions. Potential strategies could encompass actions such as

accumulating critical commodities, developing substitute distribution networks, or devising financial instruments to mitigate the impact of economic disruptions.

Fortifying the internal economy can enhance its ability to withstand external disruptions. Establishing infrastructure, facilitating innovation and technological progress, and providing support for local industries can contribute to developing a strong and diverse economic base. The act of establishing buffers against consequences of engaging in commerce with conflicting nations. Neighbouring nations have the ability to apply their diplomatic leverage to promote discourse, facilitation and deal-making between conflicting factions. Minimizing negative impacts on trade and regional relations can be achieved through promoting peace and stability. It is essential to recognize that each situation is unique and implement precise strategies

## **3.2.What if war finishes**

### **3.2.1.Possible turnaround of events**

The cessation of hostilities between the conflicting factions has the potential to trigger various transformative occurrences for the adjacent nation. Below are several potential options:

The cessation of hostilities can create prospects for economic recuperation and reconstruction. The enhancement of trade and investment can be advantageous for neighboring nations, given that the erstwhile conflicting factions concentrate on the reconstruction of their respective economies. The aforementioned could potentially result in the emergence of fresh business prospects, the undertaking of infrastructure development initiatives, and a surge in the requisition of commodities and amenities.

The resolution of the conflict may lead to the lifting or reduction of trade barriers and restrictions, resulting in an expansion of trade. The outcome of this could potentially lead to enhanced trade connections and expanded market entry opportunities among the formerly conflicting factions and the adjacent nation. Eliminating trade disruptions and tensions can establish fresh opportunities for economic collaboration and trade amplification.

The termination of a conflict has the potential to promote regional stability. The implementation of measures to mitigate spill-over effects, such as refugee flows, cross-border conflicts, or the spread of violence, can lead to a reduction in associated risks. The provision of a secure and stable environment can facilitate economic growth, investment, and cooperation among neighboring countries.

The cessation of hostilities between nations can present a favorable occasion for the restoration of diplomatic ties and the reestablishment of amicable relations with erstwhile adversaries. The implementation of diplomatic initiatives and reconciliation procedures can facilitate the restoration of damaged relationships and promote collaboration across multiple domains, such as commerce, safeguarding, and territorial unification. The restoration of positive relations has the potential to establish a favorable atmosphere for collaborative efforts and reciprocal advancement.

During the post-conflict phase, there is often a substantial requirement for humanitarian aid, which can be addressed through the provision of development assistance by international organizations and neighboring nations. The aforementioned activities encompass the provision of humanitarian assistance, facilitation of repatriation of displaced communities, and promotion of social and economic progress in areas affected by armed conflict. The involvement of the adjacent nation could be pivotal in the coordination and facilitation of these endeavors.

In the long run, the cessation of hostilities can facilitate enduring stability and economic growth within the area. The presence of peaceful conditions enables nations to concentrate on enhancing their social and economic progress, fortifying their institutions, and refining their governance. The establishment of such an environment can foster investment, entrepreneurship, and overall economic expansion, thereby conferring benefits upon both the adjacent nation and the erstwhile belligerent factions.

It is noteworthy that the precise sequence of occurrences is contingent upon the particular circumstances, the character of the conflict, and the interplay among the nations implicated. Achieving a peaceful transition necessitates persistent endeavors, constructive communication, and cooperative engagement among all concerned parties to guarantee enduring stability, conciliation, and mutual economic growth.

### **3.2.2. Diversification perspectives**

Azerbaijan experienced a period of significant expansion, resulting in a tenfold increase in real GDP per capita from 2001 to 2014. However, the country faced an economic slowdown in 2015, as reported by the World Bank in 2017. The economy experienced some recovery in late 2017, largely due to marginal increases in oil prices and tight macroeconomic measures. However, the economy has yet to reach the output levels seen before the crisis. The depreciation of the domestic currency, namely the manat, during the period 2015–2016 increased the inflation rate from 1.4% in 2014 to 12.4% in 2016, as reported by the European

Bank for Reconstruction and Development in 2017. In 2016, the majority of exports, 90.8% of the total, consisted of crude oil, petroleum gas, and refined petroleum. This figure was slightly lower than in previous years, possibly due to the drop in oil prices.

However, there was a notable increase of 24% in non-oil exports during the same period. The decline in oil prices has also had a negative impact on the demand within Azerbaijan's primary non-oil external market. The economic disturbances experienced during the period of 2014-15 have underscored the significance of broadening economic pursuits, specifically in the realm of exports. In 2017, the primary countries to which non-oil exports were sent were Russia, accounting for 35.93% of exports, followed by Turkey at 18.99%, Switzerland at 9.33%, Georgia at 8.95%, and Italy at 3.67%.

The implementation of diversification strategies presents Azerbaijan with the prospect of transitioning towards a growth model that is more comprehensive and inclusive. The hydrocarbon industry exhibits a high degree of capital intensity. Despite contributing slightly over 32% to the Gross Domestic Product (GDP) in 2016, official statistics indicate that it only provided employment to a meager 2% of the labor force.

Simultaneously, approximately 37% of the labor force is engaged in industries where the mean productivity level is below fifty percent of the overall national average. The development of a thriving urban sector that is not reliant on natural resources is expected to play a pivotal role in achieving widespread economic well-being in the future.

In light of the need for diversification, the government has initiated a comprehensive reform program aimed at enhancing the competitiveness of the non-oil industry. In December of 2016, the President implemented a set of 12 "Strategic Roadmaps" aimed at outlining objectives in various sectors of the national economy such as oil and gas, agriculture, tourism, financial services, and small and medium-sized enterprises. These roadmaps delineate both short-term, medium-term, and long-term goals. The adoption of corresponding action plans for the years 2016-20 was accompanied by the delegation of responsibility to the Centre for Economic Reforms Analysis and Communication for the purpose of overseeing and monitoring their implementation.

Azerbaijan has demonstrated a proactive approach towards the reformation of its business environment. The country has demonstrated noteworthy advancement as per the 2019 Doing Business report by the World Bank, having ascended to the 25th rank from its previous position of 57th in 2018 (refer to Box 1). Considerable endeavors have been made to

rationalize administrative prerequisites, resulting in a decrease in the number of licensed activities from 59 to 37 and a reduction in the number of permits from 330 to 86. The provision of e-government services has undergone substantial expansion, enabling the completion of various procedures such as company registration, business licensing, public procurement, customs, and visa applications through online platforms. This has resulted in enhanced convenience and transparency in the aforementioned processes. Until 1 January 2021, specific business inspections have been subjected to a moratorium, thereby alleviating the regulatory encumbrance on businesses.

In the context of Azerbaijan's efforts to diversify its economy, the development of small and medium-sized organizations (SMEs) is an important objective of coverage. Small and medium-sized companies (SMEs) have the capacity to serve as a catalyst for employment generation and long-term financial growth. This may be finished through their position in selling a transition towards an extra varied economy, stimulating the development of non-oil industries, and enhancing innovation and performance. At gift, Azerbaijan has yet to absolutely realise the potential of small and medium-sized firms (SMEs). In 2016, small and medium-sized organisations (SMEs) contributed 4% to the overall value brought and 18.5% to employment. This is in contrast to OECD countries where SMEs account for 60% of overall price brought and 60-70% of employment.

### **3.3.Relationships shaping with third parties.**

The ongoing conflict between Russia and Ukraine has prompted all member states of the European Union to contemplate dependable sources of energy. The energy sector of Azerbaijan, particularly its gas exports, holds significant value in terms of facilitating the diversification of energy sources and routes. However, it is noteworthy that the volume of gas received by Europe from Azerbaijan is not comparable to that received from Russia, and therefore cannot compete with it. The European Union has recognized Azerbaijan's significant contribution in offering an alternative energy source for the European markets, especially in light of the escalating natural gas prices and Europe's attempts to reduce its dependence on Russian gas.

The exportation of gas to Europe through the SGC was initiated by Azerbaijan in December of 2020. Despite constituting less than two percent of the EU's overall gas imports, the Azerbaijani gas holds significant strategic value for certain Eastern European nations. It is noteworthy that Azerbaijan is perceived as a potential alternative gas exporter amidst Europe's endeavors to decrease its reliance on Russia for gas supply. The International Energy Agency

has proposed a ten-point plan aimed at reducing Europe's reliance on Russian gas. As part of this plan, Azerbaijan has been suggested as a potential alternative source. In recent times, there have been extensive discussions between European authorities and the Azerbaijani administration to investigate the potential avenues for augmenting the export of Azerbaijani gas to Europe.

At the Eighth Ministerial Meeting of the Southern Gas Corridor Advisory Council, which took place on February 4, 2022 in Baku, Kadri Simson, the EU Commissioner for Energy, and Oliver Varhelyi, the EU Commissioner for Neighborhood and Enlargement, reiterated the strategic energy partnership between the Republic of Azerbaijan and the European Union. This partnership is founded on the mutual objectives of ensuring long-term energy security, supply security, and facilitating the transition towards green energy. The parties emphasized the successful results of the initial year of operation of the SGC, which has effectively facilitated the provision of dependable, cost-effective, and competitive energy resources from Azerbaijan to various markets in Georgia, Turkey, and Europe.<sup>34</sup> The increasing significance of Azerbaijan's strategic position as a supplier of secure, stable, and cost-effective energy to Europe is becoming more prominent in light of the prevailing gas shortages and elevated prices in the global energy markets.

On July 18, 2022, a significant agreement was reached between Azerbaijan and the European Union. The European Commission signed a new "Memorandum of Understanding on a Strategic Partnership in the Field of Energy" with Azerbaijan, aimed at boosting the importation of Azerbaijani natural gas to Europe by a minimum of 20 bcm/y by 2027. This agreement is considered groundbreaking. This document marked the beginning of a novel phase of collaboration between Brussels and Baku.

For a considerable duration, Azerbaijan has demonstrated its dependability as an energy collaborator with Europe. Presently, the energy partnership between Azerbaijan and the European Union is progressing towards a fresh stage. Azerbaijan's extensive energy resources, inclusive of renewable sources, have the potential to elevate its significance in the forthcoming energy security of Europe. It is noteworthy that Azerbaijan presently provides natural gas to several countries including Turkey, Georgia, Greece, Bulgaria, and Italy.

The year 2021 saw Azerbaijan's exportation of approximately 19 billion cubic meters of natural gas, with a notable 8.2 billion cubic meters being directed towards the European market. Anticipated for the year 2022 is the provision of 22 billion cubic meters of gas, with a projected allocation of 11.5 billion cubic meters to the European region. The escalating global



energy crisis has led to a discernible surge in the demand for natural gas. Azerbaijan, with its abundant gas reserves in the Caspian Sea and the possibility of accessing natural gas sources from other nations, has the potential to augment gas deliveries to Europe.

Azerbaijan has set a goal to enhance the provision of natural gas to Europe by increasing it up to 20 bcm by 2027. Additionally, the capacity of TANAP is expected to be raised from 16 to 32 bcm/y.

There are tremendous opportunities for joint energy cooperation between the European Union and Azerbaijan, which will enable both parties to boost their growth potential and enhance their standards of living. The main thrust of this cooperation will be the fostering of collaboration in the areas of natural gas provision and development of more sustainable forms of energy. Evidently, developments in the field of energy in Azerbaijan will only boost the nation's export potential in the next decade. Furthermore, Azerbaijan has the potential to serve as a significant energy hub within the region, facilitating the exportation of Caspian energy resources to Western energy markets. Furthermore, through the promotion of renewable energy sources, Azerbaijan can effectively manage the utilization of natural gas and renewables in the generation of electricity, thereby paving the way for novel prospects in electricity production and exportation.

Finally, the implementation of energy policies has cemented Azerbaijan's geopolitical importance on a global scale, and pursuing energy-related strategies will continue to be a priority for the country abroad in the political field. So far, Azerbaijan's energy policy has focused on modernizing the energy sector and reforming policy tools and regulatory frameworks to accommodate the rapidly developing energy market of Azerbaijan's energy policy primarily to increase the efficiency of the power plant and to establish a reliable power supply system. In the forthcoming decades, the energy sector will remain the primary export of Azerbaijan. Consequently, it is imperative that the country undertakes essential structural and organizational reforms, alongside innovative measures, to ensure the growth and development of its energy sector. In summary, Azerbaijan has prioritized the safeguarding of its national interests and the provision of assistance to Europe's energy security as its primary strategy. The impact of global energy market advancements, particularly the role of natural gas in Europe's decarbonization initiatives, will persistently influence Azerbaijan's energy partnerships.

The Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor, is a prominent land route in Eurasia that seeks to enhance connectivity between the Eastern

and Western regions. The Middle Corridor is a recently established multimodal transit route that spans from the China-Kazakhstan border to Europe, traversing Kazakhstan, the Caspian Sea, and Azerbaijan and Georgia, utilizing various transportation modes such as rail, road, and sea connections. The Coordinating Committee, comprising Azerbaijan, Georgia, Kazakhstan, Romania, and Turkey, is deemed to have been established symbolically in October 2013. The aim of this particular mode of freight transportation is to enhance the flow of goods between China, Central Asia, the Caspian and Black Sea regions, as well as European nations. This is achieved by circumventing the established routes through Russia and instead traversing Azerbaijan.

A significant advancement in this context occurred on February 20, 2014, with the formation of the Coordination Committee comprising Azerbaijan, Kazakhstan, and Georgia, aimed at facilitating the progress of the TITR.

The topic of Eurasian connectivity and the Middle Corridor has garnered significant attention and acknowledgement in the aftermath of the Russia-Ukraine conflict.

The imposition of sanctions by the European Union and the United States on Russia has resulted in significant repercussions for global transportation and the conveyance of goods. The conventional trade routes have been deemed obsolete, as the global movement of goods from East to West has undergone a shift, resulting in a significant redirection of cargo from the northern to the southern regions. Even nations that maintain a neutral stance in the ongoing conflict are redirecting their cargo transportation routes and exploring alternative means of delivering their merchandise. The imposition of sanctions has significantly expedited the increase in cargo volume that has been observed in freight transportation along the TITR, also known as the Middle Corridor, in recent years.

As part of the fifth package of sanctions, the European Union implemented measures that included imposing sanctions on Russian Railways OJSC (РЖД). responded to the recent imposition of sanctions on Russian and Belarusian trucks by the EU. On April 9, these logistics operators have taken measures to address the impact of the sanctions on transit-logistics.

The cessation of collaboration with Russian Railways has been implemented. A novel transportation route for cargo trains has been established by the Chinese government, connecting the city of Xi'an located in the northwestern region of Shaanxi province to Mannheim, a city in Germany.

On April 13, the inaugural train, which was carrying 42 containers and had a weight of 316 tonnes, departed from Xi'an. According to reports, the route covered a distance of 11,300 km and traversed several countries including Kazakhstan, Azerbaijan, Georgia, Romania, Hungary, Slovakia, and the Czech Republic before ultimately arriving at the city of Manheim.<sup>50</sup>

It is noteworthy that the quantity of rail container transportation between China and the European Union via Russia's territory had attained one million standard containers (TEU) by the end of 2021. The rise in the quantity of transported goods can be attributed primarily to the consistent performance of railway transportation amidst the COVID-19 pandemic. Amidst the ongoing pandemic, railway transport has notably exhibited its most competitive attributes, including but not limited to reliability, regularity, environmental cleanliness, delivery speed, and price stability.

Before China's Belt and Road plan, there had been long-term international institutional transport integration development programs; the Transport Corridor Europe-Caucasus-Asia (TRACECA) was the most famous. However, compared to other modes of transportation, rail traffic in the Middle Corridor has never been of major importance until lately.

As previously mentioned, discussions were conducted on March 9-10, 2022, involving delegates from the Ministry of Industry and Infrastructure Development.

The entities involved in this collaboration are the Republic of Kazakhstan, the Ministry of Digital Development and Transport of Azerbaijan, and the Ministry of Economy and Sustainable Development of Georgia. To facilitate the TITR route, a collaborative effort has been initiated between the involved parties to establish a joint venture. The primary objective of this venture is to address concerns pertaining to tariff determination, cargo declaration, employment of standardized IT solutions, and consolidation of transit cargo. Following the commencement of the collaborative enterprise, it is anticipated that the transportation capacity of up to 10 million metric tonnes per annum, encompassing a maximum of 200,000 containers, will be feasible through this pathway.

It is anticipated that the formalization of the joint venture will be finalized within the timeframe of early to mid-2023. There is a proposed plan to create a collaborative business venture involving the railway systems of the four member nations of the Trans-Caspian International Transport Route Association. In late March, the most recent assembly of the proficient working committee concerning the establishment of the global transportation

passageway took place in Almaty, Kazakhstan. Due to a significant surge in the need for cargo transportation, the association members opted to expedite the establishment of a unified logistics operator through a collaborative enterprise.

In light of the findings for the initial quarter of 2022, it has been observed that the aforementioned route, which was previously functioning at 25% of its full capacity, has now attained a rate of 95%. Between January and April, a total of 8,696 TEU containers were transported via the Middle Corridor. There has been a 30% surge in comparison to the corresponding time frame of the previous year. The government of Azerbaijan anticipates a growth rate of three times or more by the conclusion of the current year, in comparison to the conditions observed in 2021. Additionally, the Trans-Caspian International Transport Route Association convened a plenary session in which it projected a twofold rise in container traffic for the year 2022 in comparison to the preceding year, along with a sixfold escalation in cargo quantities, amounting to 3.2 million tonnes in 2022. According to Levan Davitashvili, the Minister of Economy in Georgia, there has been a 30% rise in the freight turnover along the Middle Corridor this year. Additionally, the cargo flow from Kazakhstan to Georgia has increased sixfold in comparison to the previous year. As per the statement of Natig Jafarov, the Director of ADY Container LLC, the transportation of container cargo on the TITR witnessed a significant increase of 45% during the initial 10 months of 2022 in comparison to the corresponding period of the preceding year.

Despite the various limitations associated with the Middle Corridor, which may pose potential challenges, it currently presents a favorable prospect. The establishment of an efficient Middle Corridor has the potential to enhance the diversification and resilience of supply chains across the European continent. As of November 18, 2022, there has been a 45% increase in container cargo transportation along the Middle Corridor over the course of the past 10 months.

In conclusion, it is anticipated that a considerable portion of conventional traffic will persist in transitioning to the Middle Corridor in the immediate future, given the persistent geopolitical tension in the region. As noted by the President of Azerbaijan, Ilham Aliyev, the current era necessitates attention to matters pertaining to the progress of the Middle Corridor.

The significance of access to the Black Sea through Georgian ports, which offer ferry connections to ports in Bulgaria and Romania, cannot be overstated. New feeder vessels have been introduced by companies hailing from Georgia, Azerbaijan, and Kazakhstan, which are currently in operation between the ports of Poti in Georgia and Constanta in Romania. Maersk

has introduced a novel rail-sea transportation service that links Asia and Europe via Central Asia, in order to address the dynamic requirements of its clientele's supply chain. Simultaneously, Nurminen Logistics from Finland has also become a participant in the Middle Corridor.

ADY Container, an Azerbaijani company, has initiated a ferry transportation system in the Black Sea region that connects the Georgian ports of Batumi and Poti to the Romanian port of Constanta. The Azerbaijani feeder vessel, Rasul Rza, which had previously been utilized for the transportation of goods from China to Europe, recently accomplished the transportation of cargo from Central Asia to Romania on September 5, 2022. Rasul Rza engages in the transportation of containers between Batumi and Constanta port on a regular basis, conducting round trips on a monthly basis. The recently established transportation route between the Teiuş terminal located in Romania and Duisburg, Germany, which was finalized in September of 2022, presents a promising prospect for future expansion towards the port of Constanta. This development has the potential to significantly contribute to the Middle Corridor.

The provision of EU assistance through the TEN-T initiative would serve to enhance the Middle Corridor's capacity. A study was initiated by the European Bank for Reconstruction and Development (EBRD) in November 2022 to investigate optimal linkages between Central Asian nations and the European TEN-T network. This is expected to persist until the summer of 2023. As per the evaluation conducted by the European Bank for Reconstruction and Development (EBRD), there exists a significant disparity in the capacity between the Northern Route and the Middle Corridor. In light of the fact that the Russian route facilitated the transportation of 1.5 million twenty-foot equivalent units (TEUs) in the year 2021, it is projected that the Middle Corridor will attain a maximum capacity of approximately 80,000 TEUs in the year 2022, which is in close proximity to its uppermost capacity range of 100,000 to 120,000 TEUs.

The Middle Corridor holds significant importance as a strategic transit initiative for the central Eurasian region. This project presents participating nations with the prospect of integrating their infrastructure and economies into the broader East-West Eurasian overland transport corridors, which connect the economic powerhouses of Europe and East Asia via road and rail. The Middle Corridor is anticipated to enhance regional collaboration and promote economic and cultural connections between nations, leading to benefits for each country in the form of amplified trade and investment. The potential for securing economic

futures of Eurasian neighbors may lie in the promising opportunity presented by the growing regional integration and access to the vast market of the European Union.

From a geopolitical perspective, the primary purpose of the route is trade-oriented. Notwithstanding, the project aligns with the strategic objectives of the United States and its Western counterparts, given that the pathway circumvents their primary regional adversaries, namely Russia, China, and Iran, while simultaneously linking a landlocked area to Europe.

The nation of Azerbaijan enjoys a strategic geopolitical location that affords the city of Baku the opportunity to augment the broader connectivity of the entire Eurasian region. The involvement of Azerbaijan in the Middle Corridor initiative is consistent with its assertive diplomatic approach aimed at advancing regional interconnectedness. In recent times, Azerbaijan has made significant investments towards the enhancement of the transit infrastructure in the region.

Despite its challenging nature, the Middle Corridor may emerge as the sole feasible overland pathway. In summary, given the current impetus to reorganize trade patterns, it is imperative for all countries situated along the Middle Corridor to expedite their efforts.

## Conclusion

To conclude, the establishment of economic ties between conflicting nations and Azerbaijan subsequent to the dissolution of the Soviet Union has been a crucial factor in shaping the economic terrain of the area. The aforementioned era constituted a pivotal juncture, wherein erstwhile opponents endeavored to establish symbiotic alliances and leverage nascent prospects in a post-Soviet milieu.

The emergence of newly independent nations, such as Azerbaijan, ensued from the dissolution of the Soviet Union in 1991. Azerbaijan encountered several challenges in the process of transitioning from a centrally planned economy to a market-oriented system. Despite the intricate geopolitical circumstances and the consequences of a devastating conflict with Armenia concerning the Nagorno-Karabakh area, Azerbaijan initiated a trajectory of economic recuperation and restructuring by utilizing its plentiful natural resources and advantageous geographical position.

The recognition of the significance of regional integration and cooperation was a pivotal element in the development of economic relationships. Azerbaijan proactively pursued the establishment of trade connections and the formation of alliances with neighboring nations, acknowledging the potential advantages of economic interdependence. Measures were taken to improve the connectivity of infrastructure, such as the establishment of transportation corridors and energy networks. These initiatives facilitated the cross-border movement of goods, services, and investments.

In addition, the process of normalizing diplomatic relations with previous opponents, namely Russia and Iran, has been instrumental in the enlargement of economic prospects for Azerbaijan. The signing of bilateral agreements has facilitated trade cooperation and investment flows, while simultaneously addressing past conflicts and security issues. The aforementioned advancements have not only expanded the range of Azerbaijan's economic associates, but have also established a structure for addressing persistent conflicts and fostering steadiness within the area.

Moreover, the investigation and utilization of Azerbaijan's extensive energy resources, specifically its oil and gas reserves located in the Caspian Sea, acted as a stimulant for economic advancement and external investment. The establishment of prominent energy initiatives, such as the Baku-Tbilisi-Ceyhan pipeline and the Southern Gas Corridor, has not only facilitated Azerbaijan's attainment of energy autonomy but has also positioned it as a

noteworthy participant in the worldwide energy industry. Consequently, this phenomenon garnered the attention of overseas investors and facilitated economic collaboration with both local and global counterparts.

It is imperative to recognize that the establishment of economic ties between belligerent nations and Azerbaijan has encountered obstacles. The presence of persistent geopolitical tensions, unresolved conflicts, and divergent economic priorities have presented impediments to achieving greater levels of integration and cooperation. However, the endeavors undertaken thus far have established the groundwork for augmented economic relations, heightened stability, and better prospects for sustained affluence.

The process of establishing economic relations between Azerbaijan and countries that were previously at war with each other after the dissolution of the Soviet Union has been a multifaceted and evolving phenomenon. The phenomenon under consideration has entailed a confluence of factors, including the process of regional integration, the establishment of normalized diplomatic ties, and the astute deployment of energy resources. Despite persistent obstacles, the endeavor to establish economic collaboration has played a role in the recuperation of Azerbaijan's economy, promoted the advancement of the region, and cultivated a trajectory towards enduring tranquility and affluence.

On the other side of the spectrum, the analysis conducted in the research showed that war had much larger effect than the Covid-19 which is huge news even if we account for the short period. Export transactions of Azerbaijan hugely affected and in the long perspective it is seems to be the main perspective for Azerbaijan as described in last chapter.



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# Appendix A

Yearly Trade Balance data of Azerbaijan.

Years	Import	Export	Covid-19	War
1991	\$2,121.00	\$1,881.20	0	0
1992	\$1,484.00	\$939.80	0	0
1993	\$724.70	\$628.80	0	0
1994	\$652.70	\$777.90	0	0
1995	\$637.20	\$667.70	0	0
1996	\$631.30	\$960.60	0	0
1997	\$781.30	\$794.40	0	0
1998	\$606.10	\$1,076.50	0	0
1999	\$929.70	\$1,035.90	0	0
2000	\$1,745.20	\$1,172.10	0	0
2001	\$2,314.20	\$1,431.10	0	0
2002	\$2,167.40	\$1,665.50	0	0
2003	\$2,590.40	\$2,626.20	0	0
2004	\$3,615.50	\$3,515.90	0	0
2005	\$4,347.20	\$4,211.20	0	0
2006	\$6,372.20	\$5,266.70	0	0
2007	\$6,058.20	\$5,713.50	0	0
2008	\$47,756.00	\$7,170.00	0	0
2009	\$14,701.40	\$6,123.10	0	0
2010	\$21,360.20	\$6,600.60	0	0
2011	\$26,570.90	\$9,756.00	0	0
2012	\$23,908.00	\$9,652.90	0	0
2013	\$23,975.40	\$10,712.50	0	0
2014	\$21,828.60	\$9,187.70	0	0
2015	\$12,729.10	\$9,216.70	0	0
2016	\$13,457.60	\$8,489.10	0	0
2017	\$15,320.00	\$8,783.30	0	0
2018	\$19,489.10	\$11,465.90	0	0
2019	\$19,635.20	\$13,667.50	0	0
2020	\$13,732.60	\$10,732.00	1	0
2021	\$22,206.70	\$11,705.80	1	0
2022	\$38,146.63	\$14,539.86	1	1

## Appendix B

### Monthly Import data of Azerbaijan

Data	January	February	March	April	May	June
2011	595267.95	734416.88	562876.23	824660.86	752196.52	854614.53
2012	657308.84	675583.01	721262.33	847252.19	772653.39	785132.81
2013	627596	806247.56	777767.76	934394.9	1212156.07	815098.57
2014	535833.29	654215.92	574085.87	970132.81	773258.31	625304.51
2015	574668.88	1134638.63	722165.92	975402.98	665202.2	633053.65
2016	434260.42	542043.71	848945.99	768574.77	737467.67	714503.07
2017	450036.64	530418.48	542335.59	641958.41	651840.42	593271.64
2018	689758.84	762818.57	739133.46	834545.81	829183.87	805000
2019	1024976.43	1132654.51	970233.44	1425910.46	1283923.57	1180834.63
2020	721010.85	1066792.1	850318.77	745239.94	782389.13	823477.33
2021	790328.95	822455.79	918477.59	998675.94	862491.72	996856.86
2022	977123.25	997656.48	953007.97	1112981.41	1095161.27	1221642.78
2023	1412532.47	1238345.73	1378977.2			

Data	July	August	September	October	November	December
2011	797328.27	720879.36	1007241.1	780514.78	879314.33	1246657.98
2012	839997.67	716613.24	750764.54	895486.48	782873.97	1207941.72
2013	1007566.08	951303.41	936088.24	808515.46	851079.74	984688.92
2014	749606.67	728038.85	908587.31	839732.64	751323.81	1075576.87
2015	607658.44	595151.42	681410.23	863279.94	756676.05	1012094.52
2016	712705.22	775590.85	672902.88	757128.45	758947.16	809377.35
2017	959880.46	931770.27	876352.41	780567.21	832364.4	991211.61
2018	1116962.18	1086386.26	1041620.6	1347479.41	1042687.12	1169394
2019	1412727.05	950256.33	993432.77	1077744.77	929344.33	1285199.53
2020	911127.57	790609	1132585	943923.86	901841.14	1061405.56
2021	907195.1	1051654.71	995667.56	990752.25	1076176.72	1295053.48
2022	1136763.35	1374159.02	1424446.4	1293249.03	1294178.53	1659489.01



# Appendix C

## Monthly Export data of Azerbaijan

Data	January	February	March	April	May	June
2011	1572808.42	1816808.74	2055181.92	2559617.78	2578714.51	2508082.26
2012	1848823.54	2200082.79	1791695.43	2592511.11	2301435.76	1976953.37
2013	1922709.05	2261107.98	2161937.48	2071538.87	1948349.26	1604408.17
2014	1870825.67	1907681.82	1598786.89	1778856.72	2323081.07	1766968.5
2015	1277554.36	1056777.24	1049307.69	886604.4	1011977.67	949232.39
2016	640075.35	553633.52	536440.11	670833.18	587032.61	772044.91
2017	1108761.58	1283992.28	1170645.44	1211472.99	1239899.71	1102872.46
2018	1038707.19	1172419.29	1144551.36	2296759.14	1718189.21	1291626.47
2019	1279406.9	1872332.82	1332523.42	2605399.27	1531175.4	1358562.44
2020	2130231.14	1118848.06	957364.78	2099976.41	665495.61	714551.95
2021	1623974.17	1163974.26	1350002.53	2226238.32	1062896.11	1383868.35
2022	3086664.08	2895983.14	2011301.38	3839381.1	3591668	3063472.49
2023	1876809.25	2643433.48	3221086.06			

Data	July	August	September	October	November	December
2011	2392740.53	2313514.49	1947813.96	2393857.28	2504059.6	1927698.8
2012	1371272.82	1744556.11	1962410.56	1948514.14	2355983.49	1813733.07
2013	1893875.81	2090724.27	2103228.44	1863360.73	2072006.21	1982170.72
2014	2002798.01	2102024.63	2005806.94	1838108.03	1518522.39	1115148.2
2015	1240854.84	710943.36	586689.11	994949.09	854204.19	805382.99
2016	768928.67	1353343.71	831898.22	644492.59	956225.26	828371.62
2017	1105600.4	1382198.64	1159314.43	910663.46	1069966.46	1066236.6
2018	2085924.96	2131465.84	1394710.91	1696211.78	1947901.34	1540165.02
2019	2288202.78	1252166.77	1346334.31	1955254.84	1481966.12	1332255.24
2020	1444986.2	748834.8	698832.02	1654802.72	826425.81	680218.13
2021	2582196.24	1541768.52	1694862.02	2218029.9	2951656.63	2407204.07
2022	4093413.51	3702315.02	3316951.58	5162092.32	1628976.34	1754410.71

## Appendix D

Final Monthly Trade Balance that used for simulation (January and December given as samples)

January	Import	Export	Covid-19	War
2011	595267.95	1572808.42	0	0
2012	657308.84	1848823.54	0	0
2013	627596	1922709.05	0	0
2014	535833.29	1870825.67	0	0
2015	574668.88	1277554.36	0	0
2016	434260.42	640075.35	0	0
2017	450036.64	1108761.58	0	0
2018	689758.84	1038707.19	0	0
2019	1024976.43	1279406.9	0	0
2020	721010.85	2130231.14	0	0
2021	790328.95	1623974.17	1	0
2022	977123.25	3086664.08	1	0
2023	1412532.47	1876809.25	1	1

December	Import	Export	Covid-19	War
2011	1246657.98	1927698.8	0	0
2012	1207941.72	1813733.07	0	0
2013	984688.92	1982170.72	0	0
2014	1075576.87	1115148.2	0	0
2015	1012094.52	805382.99	0	0
2016	809377.35	828371.62	0	0
2017	991211.61	1066236.6	0	0
2018	1169394	1540165.02	0	0
2019	1285199.53	1332255.24	0	0
2020	1061405.56	680218.13	1	0
2021	1295053.48	2407204.07	1	0
2022	1659489.01	1754410.71	1	1

## Appendix E

The R code used to get multivariate regression

```
library(readxl)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "January")

Regression.January.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.January.Import)

Regression.January.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.January.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "February")

Regression.February.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.February.Import)

Regression.February.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.February.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "March")

Regression.March.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.March.Import)

Regression.March.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.March.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "April")

Regression.April.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.April.Import)

Regression.April.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.April.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "May")

Regression.May.Import<-lm(Import ~ CVD + War, data = Data_TB)
```

```
summary(Regression.May.Import)

Regression.May.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.May.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "June")

Regression.June.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.June.Import)

Regression.June.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.June.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "July")

Regression.July.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.July.Import)

Regression.July.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.July.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "August")

Regression.August.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.August.Import)

Regression.August.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.August.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "September")

Regression.September.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.September.Import)

Regression.September.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.September.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "October")

Regression.October.Import<-lm(Import ~ CVD + War, data = Data_TB)
```

```
summary(Regression.October.Import)

Regression.October.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.October.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "November")

Regression.November.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.November.Import)

Regression.November.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.November.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "December")

Regression.December.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.December.Import)

Regression.December.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.December.Export)

Data_TB <- read_excel("Data_TB.xlsx", sheet = "Yearly")

Regression.Yearly.Import<-lm(Import ~ CVD + War, data = Data_TB)

summary(Regression.Yearly.Import)

Regression.Yearly.Export<-lm(Export ~ CVD + War, data = Data_TB)

summary(Regression.Yearly.Export)
```