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Defence Spending, Economic Growth and Regional Balance: Evidence from Azerbaijan and Armenia

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ABSTRACT

Military expenditures have a significant impact not only on the socioeconomic condition of a state but also on the regional balance of power. In this study it will be examined the relationship between military expenditures and economic conditions in Azerbaijan and Armenia and impacts of military expenditures on the regional balance. In the context of the diplomatic history from the First Karabakh War to the Second Karabakh War, the regional balance between the two states is clarified. Then the complex relationship between military expenditures and economic conditions is empirically analyzed via using non-linear ARDL and ARDL limited test methods.

The empirical findings indicate that in Azerbaijan, military spending aligns with the Military-led Standard of Living Improvement Hypothesis, whereas its positive effect on well-being in Armenia is minimal. Specifically, military expenditure positively influences the standard of living and well-being in Azerbaijan, as evidenced by both the ARDL Bound and multiplier effect. Conversely, according to the Military Burden Hypothesis, military spending poses a burden on the budgets of both countries. Nevertheless, this burden is more pronounced for Azerbaijan compared to Armenia, where the adverse impact of military expenditure is comparatively lesser.

Keywords

Azerbaijan, Armenia, Nagorno Karabakh, Military Spending.

JEL Classification

F50, F51, F52, O1, O57, P16

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Savunma Harcamaları, Ekonomik Büyüme ve Bölgesel Denge: Azerbaycan ve Ermenistan'dan Kanıtlar

ÖZ

Askeri harcamalar sadece bir devletin sosyoekonomik durumu üzerinde değil, aynı zamanda bölgesel güç dengesi üzerinde de önemli bir etkiye sahiptir. Bu çalışmada, Azerbaycan ve Ermenistan'daki askeri harcamalar ile ekonomik koşullar arasındaki ilişki ve bu harcamaların bölgesel denge üzerindeki etkileri incelenmektedir. Birinci Karabağ Savaşı'ndan İkinci Karabağ Savaşı'na kadar olan diplomasi tarihi bağlamında, iki devlet arasındaki bölgesel denge açıklığa kavuşturulmaktadır. Ardından, askeri harcamalar ile ekonomik koşullar arasındaki karmaşık ilişki, non-linear ARDL ve ARDL sınırlı test yöntemleriyle empirik olarak analiz edilmektedir. Empirik bulgular, Azerbaycan'da askeri harcamaların Askeri Destekli Yaşam Standardı İyileştirme Hipotezi ile uyumlu olduğunu, Ermenistan'da ise refah üzerindeki olumlu etkisinin minimal düzeyde olduğunu göstermektedir. Özellikle, askeri harcamalar, hem ARDL Bağlantısı hem de çarpan etkisi ile kanıtlandığı üzere, Azerbaycan'da yaşam standardını ve refahı olumlu yönde etkilemektedir. Tersine, Askeri Yük Hipotezine göre, askeri harcamalar her iki ülkenin bütçeleri üzerinde bir yük oluşturmaktadır. Bununla birlikte, bu yük, askeri harcamaların olumsuz etkisinin nispeten daha az olduğu Ermenistan'a kıyasla Azerbaycan için daha belirgindir.

Anahtar Kelimeler
Azerbaycan,
Ermenistan, Dağlık
Karabağ, Askeri
Harcama

JEL Kodu
F50, F51, F52, O1,
O57, P16

1. Introduction

Throughout history, the Transcaucasus attracted the attention of important actors such as the Abbasids, the Byzantine Empire, the Ottoman Empire, the Safavids and the Russian Tsarist Empire was the scene of important power struggles. One of the actors that dominated the region was the Union of Soviet Socialist Republics (USSR). With their nearly 100 years of hegemonic experience, the Russians took advantage of the historical enmity of the peoples in the region during the period USSR and were able to rule by “divide and rule”. The Nagorno-Karabakh problem was one of the aforementioned enmities. The demographic policy and political system of the Russians since the 19th century played an important role in the Nagorno-Karabakh conflict between Azerbaijani Turks and Armenians. During the USSR period, Armenians repeatedly argued that Nagorno-Karabakh, whose population was majority Armenian (due to the the demography policy of the Russian Tsarist Empire), should be ceded to Armenia, and not to Azerbaijan. Since the 1970s, this demand of Armenians was voiced repeatedly. Until the dissolution of the USSR, the status quo in the region didn't change and Nagorno-Karabakh remained a part of Azerbaijan.

With the dissolution of the USSR, the frozen or protracted conflicts between the Soviet republics resurfaced due to the power vacuum. The Nagorno-Karabakh problem was one of them as well. Armenia occupied Nagorno-Karabakh and seven adjacent rayons with Russia's support. The Illegal status quo, which continued with Armenia's domination, first changed with the "Four-Day War" in 2016, and then ended with the Tovuz War in July 2020 and the Second Karabakh War (Forty-Four Day War) with the ceasefire on November 10, 2020.

This study analyzes the economic conditions of Azerbaijan and Armenia in changing the regional balance between the two states from the First Karabakh War to the Second Karabakh War and impact of the above economic conditions on the military expenditures of the two states.

2. Analysis of Azerbaijan's and Armenia's Foreign Policy Decisions in the South Caucasus Regional Subsystem

The 20th century has been called the "Age of Extremes" by historian Eric Hobsbawm. Eric Hobsbawm was right with this term, because the 20th century witnessed two world wars, the Cold War and many tragedies in the history of mankind (Hobsbawm, 1994). In the 20th century, there was an important turning point not only for world history, but also for Russian history: The dissolution of the USSR. President of the Russian Federation (RF) Vladimir Putin described the dissolution of the USSR as "the biggest geopolitical disaster of the century" (Shlapentokh, 2017: 219). One of the consequences of this disaster is ethnic conflicts such as the Chechen-Ingush conflict, the Tajik civil war, Abkhazian problem, South Ossetian problem and the Transdniestrian problem which arose from the power vacuum after the dissolution of the USSR. The Azerbaijan-Armenia war related to the occupation of Nagorno Karabakh and seven adjacent Azerbaijani rayons was among the most important ethnic and religious conflicts in the post-Cold War period.

The Azerbaijani-Armenian conflict which began in 1988, continued with the proclamation of the de facto and unrecognized Armenian Republic of Artsakh by the Karabakh Armenians on December 10, 1991 (Aslanlı, 2001: 402). Following this development, Armenians supported by RF massacred Azerbaijanis in Khojaly on February 25-26, 1992. After the Khojaly massacre, Armenians occupied Shusha, Lachin, Kelbajar, Aghdam, Akderen, Fuzuli, Jabrayil, Gubatli and Zengilan (İşyar, 2017: 293-294, Hasanoğlu-Cemilli, 2006: 86). On July 27, 1994, the ceasefire agreement (Bishkek Protocol) was signed at the initiative of the RF (Özdal, 2019: 196). The status quo, which has persisted in favor of Armenia since 1994, changed with the "Four-Day War" that took place from April 2-5, 2016, at the end of which

Azerbaijan captured % 1 of its occupied territory (Özdamar, 2017: 46). The situation that turned in Azerbaijan's favor continued with the Tovuz and the “Second Karabakh War” - also known as the Forty-Four Days War - from September 27 to November 10, 2020. Azerbaijan liberated seven rayons and Susha under Armenian occupation. Thus, Azerbaijan gained both psychological and military superiority over Armenia.

There are many reasons why the supremacy in the war between Azerbaijan and Armenia gradually passed to Azerbaijan. Azerbaijan has rich hydrocarbon resources, higher GDP than Armenia and high-tech weapons. But beyond that, Azerbaijan has developed a foreign policy that knows its foreign policy tools and limits. Azerbaijan was aware that it was surrounded by strong regional powers such as Iran, RF, and Turkey. Therefore, Azerbaijan had to take appropriate and thoughtful diplomatic steps to stand up to Armenia and become an important South Caucasian state. This awareness of diplomacy is the result of the lessons learned from the mistakes made after independence in the period from Ayaz Muttalibov to Abulfaz Elchibey.

The first president of Azerbaijan was Ayaz Muttalibov. Ayaz Muttalibov was a pro-Russian leader, and his general policy was bandwagoning (Valiyev, Mamishova, 2019: 2). Before the Khojaly Massacre, the RF delivered 220 tanks, 220 military vehicles, 285 cannons, 100 military aircraft, and 50 helicopters to Azerbaijan (İşyar, 2004: 426). However, after the Khojaly massacre and the loss of Susha and Lachin to Armenia, Muttalibov had to resign (Valiyev, Mamishova, 2019: 2). After Muttalibov, Abulfaz Elchibey became president of Azerbaijan. Elchibey pursued an ideology-centered foreign policy and neglected regional dynamics. In parallel with this ideologically oriented policy, Azerbaijan refused to join the Russian-led international organization Commonwealth of Independence States (CIS) and pursued a pro-Western and Turkish-oriented policy. Elchibey's irredentist rhetoric against Turks in Iran damaged relations between Azerbaijan and Iran. Turkey also prioritized Turkey-RF relations rather than nationalist discourse of Elchibey and approached cautiously to Elchibey (Shaffer, 2012: 74-76). Despite being pro-Western due to the pressure of the well-organised Armenian lobby in the United States of America (USA), Azerbaijan couldn't benefit from the United States Freedom Support Act Section 907. Section 907 states that "United States assistance under this or any other Act may not be provided to the Government of Azerbaijan until the President determines and reports to Congress that the Government of Azerbaijan is taking demonstrable steps to cease all blockades and other offensive uses of force against Armenia and Nagorno-Karabakh (Habibbeyli, 2017: 31). Elchibey's discourses and ideological foreign policy also disturbed RF. Azerbaijan's pro-Western policies and negotiations with

Western oil companies reinforced Russian support for Armenia in the Nagorno-Karabakh problem (Valiyev, Mamishova, 2019: 2). While the 104th Russian Infantry Regiment withdrew from Azerbaijan in May 1993, it left most of its weapons to Suret Huseynov, who would later coup against Elchibey. This situation shook Elchibey's power (İşyar, 2004: 442). Elchibey's foreign policy decisions isolated Azerbaijan in the South Caucasus and harmed Azerbaijan's interests vis-à-vis Armenia on the Nagorno-Karabakh issue. The Elchibey period was also referred to as the “lost years of independence” in Azerbaijan (Habibbeyli, 2017: 32). During the Elchibey period, the only positive aspects of the Nagorno-Karabakh conflict were the United Nations Security Council (UNSC) resolutions against the Armenian occupation: resolutions 822, 853, 874, and 884 (Özdal, 2019: 196). Failures in Nagorno-Karabakh led to domestic political instability in Azerbaijan, and after Suret Huseynov's coup, former Komitet Gosudarstvennoy Bezopasnosti (KGB - Committee for State Security) employee Heydar Aliyev became president of Azerbaijan in 1993. Azerbaijan began to solve some problems gradually. Behind Heydar Aliyev's relative success was multi-vectoral (multilayered) diplomacy and pragmatic usage of Azerbaijan's potential in a rational way. In this context, six main features of Heydar Aliyev's foreign policy can be enumerated (Shaffer, 2012: 75):

- Balanced relations between regional and global powers.
- Absence of an identity factor in the foreign policy decision-making process.
- Establishment of relations within the principle of sovereign equality with all actors in the international system.
- Abandonment of the “Greater Azerbaijan” discourse.
- Transportation of energy resources.
- Territorial integrity with regard to the occupation of Nagorno-Karabakh and seven adjacent rayons.

Studying the above features of foreign policy, it is understood that the foreign policy of Azerbaijan in the period of Heydar Aliyev can be analyzed in three dimensions. These are the multicultural dimension of Azerbaijan, the creation of balanced relations with important actors in the international system, and the aspiration to be an influential player in the New Great Game through hydrocarbon resources.

Azerbaijan has a complex and multilayered geopolitical identity. In this regard, Aliyev's foreign policy was based on cooperation and inclusion of all identities that Azerbaijan has in

order to strengthen its own interests. It can be considered as “Azerbaijani model of multiculturalism”. In this perspective, Azerbaijan has adopted Western and Eastern values as a bridge between the West and the East, different cultures such as Christians, Muslims and Jews live in coexistence in Azerbaijan (Habibbeyli, 2017: 40-41). As a result, Azerbaijan is part of different historical experiences. For example, Azerbaijan has been part of Russian history, especially since the 19th century (Treaties of Kürekçay, Gülistan, Türkmençay and Edirne) (Asker, Şeyban, 2021: 34). Former President Heydar Aliyev was also an important KGB officer (USSR). In addition to Azerbaijan's place in Russian history, Azerbaijan also considers itself part of Islamic culture. Officially, it has been stated that belonging to the Islamic world is one of the main priorities of Azerbaijan's foreign policy (mfa.gov.az). In this framework, Azerbaijan became a member of the Organization of Islamic Cooperation (OIC) in 1991. Moreover, Azerbaijan is part of the Turkish world and part of the European world by becoming a member of the European Council in 2001. This approach has also been called the “ideology of Azerbaijanism” based on the *raison d'état* (Mammadov, 2017: 24-26).

The second dimension is about balanced relations with regional and global actors. Azerbaijan maintains good relations with the European Union (EU), is a member of the Russian-led international organization CIS and a member of the IOC (Mammadov, 2018: 85), part of the Collective Security Treaty Organization (CSTO), from which it withdrew in 1999 and entered into cooperation with NATO on joining the Kosovo Force (KFOR) (Valiyev, Mamishova, 2019: 6, 8). In addition to the multifaceted international institutional viewpoints, Azerbaijan also emphasised relations with regional actors. For example, Azerbaijan cared about the stability of Georgia and supported the integration of Azerbaijanis living in Georgia and invested in the Georgian transport sector. Apart from relations with Georgia, it can be argued that relations with Iran were better on a discursive basis during the Aliyev period. In other words, Azerbaijan paid more attention to its relations with Iran during the Aliyev period than to its relations with Turks in Iran (Shaffer, 2012: 78-79).

The third dimension of Aliyev's balanced foreign policy is related to the second dimension. This dimension is about the geopolitical and geo-economic importance of Azerbaijan in the New Great Game on the “Great Chessboard”. In short, the Great Game was the power struggle between the Russian Empire and Great Britain in the 19th century. The geopolitical space of the Great Game was Central Asia and the Caucasus (Ongun, 2021: 493; Çapraz, 2012: 111). After the dissolution of the USSR, the geography of the Great Game was opened to other actors of the international system. After the dissolution of the USSR, space of the Great Game

was opened to other actors of the international system. After the end of the Cold War, regional and non-regional actors such as China, USA, EU, Turkey and Iran entered to hegemonic struggle in the geopolitical space of the Great Game (Cuthbertson, 1994). One of the central issues of the above-mentioned power struggle was Caspian hydrocarbon sources. Heydar Aliyev opened Azeri – Chirag – Guneshli oil fields to international actors with “Contract of Century” signed on September 20, 1994 shortly after the Bishkek Protocol (Valiyev, Mamishova, 2019: 7). According to the contract signed in 1994, the shares of the companies are as follows (Pamir, 2011: 360):

Table 1

Shares of Companies Related to Contract of Century

Company (State)	Share
BP (UK)	34.14 %
UNOCAL (USA)	10.28 %
SOCAR (Azerbaijan)	10 %
INPEX (Japan)	10 %
Statoil (Norway)	8.56 %
ExxonMobil (USA)	8 %
TPAO (Turkey)	6.75 %
DEVON Energy (USA)	5.63 %
ITOCHU (Japan)	3.52 %
Amerada Hess (USA)	2.72 %

Valiyev and Mamishova stated, “This was the first time a former Soviet state signed an agreement to bring its oil to international markets bypassing Russia.”. RF accused Azerbaijan of expanding Western influence in the region, imposed sanctions, and protested Azerbaijan. As a result, Lukoil took a 10% stake in Century's contract (Valiyev, Mamishova, 2019: 8).

As can be seen from the above developments, Heydar Aliyev sought to balance RF by using Azerbaijan’s resources in a multilateral and balanced diplomacy, but without ignoring and neglecting RF in the regional dynamics. In other words, Azerbaijan’s economic resources and geopolitical position allowed for a multifaceted foreign policy during the Aliyev period.

Heydar Aliyev's balanced-rational foreign policy and multivectoral diplomacy continued under his son Ilham Aliyev. One of the most important indicators of this was that Ilham Aliyev's first foreign visit was to France, a member of the UNSC responsible for balance (Aslanlı, 2011). During Ilham Aliyev’s period, Azerbaijan further strengthened its position in the international system with multidimensional diplomacy by maintaining balanced relations

with regional actors other than Armenia. The following developments can be cited as examples of this sustained policy:

- In the first national security document published on May 23, 2007, it was stated that Azerbaijan's identity was Western and Eastern, Euro-Atlantic and Islamic (Aslanlı, 2011).
- Continuation of close relations despite sanctions against Iran in 2006 and 2007, sanctions against RF in 2014 (Mammadov, 2017: 27).
- Azerbaijan became a member of the Non-Aligned Movement in 2011 (Mammadov, 2017: 27).
- Azerbaijan's multidimensional diplomacy led to temporary membership in the UNSC in 2012-2013 (Habibbeyli, 2017: 29).
- Participation in trilateral cooperations in the South Caucasus such as Azerbaijan-Iran-Turkey, Azerbaijan-Georgia-Turkey, Azerbaijan-RF-Iran (Habibbeyli, 2017: 37).
- Admission as a dialogue partner of the Shanghai Cooperation Organization (SCO) in 2016 (Tanrısever, 2016: 121).
- Appointment as an associate member of the NATO Parliamentary Assembly (Valiyev, Mamishova, 2019: 11) and important role in NATO Operation in Afghanistan, especially due to the geopolitical position (Mammadov, 2018: 90-91).
- Azerbaijan tripled its diplomatic missions and increased its military power after its oil revenues increased in 2005 and established the Azerbaijan Diplomatic Academy (ADA) in 2006 (Shaffer, 2010: 56-57).
- Azerbaijan maintains good relations with Israel to balance Iran. It's also observed that relations between Azerbaijan-Israel have become closer after 2012. The relations of the two states have improved since 2012 in terms of economic and military issues (Göksel, 2015: 655-656).

As far as understood, Azerbaijan pursues a relatively successful, balanced, and multifaceted foreign policy. Geopolitical and geoeconomic importance, hydrocarbon reserves, and revenues played important roles for Azerbaijan. In contrast, Armenia has some foreign policy disadvantages compared to Azerbaijan. Armenia has occupied Nagorno-Karabakh in violation of international law. UNSC Resolutions 822, 853, 874, and 884 recognised that

Azerbaijani territories were occupied by Armenia (Özdal, 2019: 196). In addition to the relations between Azerbaijan and Armenia, Armenia also has problems with Georgia. Ethnic Armenians living in the Javakheti region cause problems for Georgia. Armenians living in the region have problems with the Georgian central government from time to time, for example, demanding self-government (Yenigün, Bolat, 2010: 473). The Javakheti problem is not only about the territorial integrity of Georgia, but also about the security of the Baku-Tblisi-Ceyhan pipeline (Cornell, 2001: 169) and the Nagorno-Karabakh problem. Therefore, Armenians in Javakheti supported Armenians in Nagorno-Karabakh against Azerbaijan (Ter-Matevosyan, Currie, 2019: 355). In other words, the presence of the Javakh Armenians directly affected the economic and political interests of the three states (Azerbaijan, Georgia, and Turkey) in the Transcaucasia regional subsystem. It should be noted that the Armenian Independence Constitution contains expansionist goals. Article 13 of the Armenian Constitution includes Mount Ağrı (Mount Ararat) in the coat of arms of the Republic of Armenia (President. Am, 2015). Mount Ağrı is located within the borders of Turkey. Thus, it can be understood as an expansionist intention of Armenia towards Turkey. Moreover, the Armenian Declaration of Independence contains expansionist goals. Article 11 of the Declaration of Independence states, “*The Republic of Armenia supports the task of achieving international recognition of the 1915 genocide in Ottoman Turkey and Western Armenia.*” (Gov. Am). It’s clear that Armenia not only recognizes and supports the claims regarding the 1915 events as genocide, but also claims and pursues a policy of expansion by using the phrase “*Western Armenia*” towards the eastern part of Turkey.

These statements in the legal documents of Armenia are consistent with the Hay-Dat doctrine. The Hay-Dat doctrine, which is one of the main frameworks of Armenia’s foreign policy, has three goals (Cabbarlı, 2019: 33):

- Creating the “Greater Armenia” that includes the legal territories of Turkey and Georgia.
- Ensuring the return of Armenians scattered throughout the world to the so-called Greater Armenia.
- Creating a social state.

As can be seen from the above examples, Armenia is an isolated actor in the South Caucasus. The actor with which Armenia has close relations other than RF is Iran. In particular, Armenia communicates with the world through southern Yerevan and Iran (Zarifian, 2009:

387). However, as is well known, Iran is an actor that has been demonized by the West since the Islamic Revolution and isolated from the international system due to its nuclear activities. In this regard, Iran-Armenia relations involve, as Şenyurt puts it, “solidarity against isolation” (Şenyurt, 2012). However, as we know, Iran is an actor demonized by the West since the Islamic Revolution and isolated from the international system due to its nuclear activities. This situation can also be a disadvantage for Armenia.

Indeed, during the tenure of Levon Ter-Petrosyan, the first president, Armenia took steps to resolve the Nagorno-Karabakh problem and overcome regional isolation. Ter-Petrosyan was aware that the situation in Nagorno-Karabakh was untenable without a final solution. He wanted to include Armenia in the Baku-Ceyhan pipeline. However, malicious Russian propaganda, which claimed that Caspian sources were not important and were sufficient for the Armenian economy, influenced Armenian public opinion. Armenians began to believe that Armenia did not need a compromise on Nagorno-Karabakh and should participate in regional cooperation projects. Supporters of compromise were accused of being cowards and “defeatists”. Then Ter-Petrosyan was forced to resign, and Robert Kocharian, a Karabakh Armenian, became Armenia's president in 1998. Kocharian tended to increase tensions between Turkey and Azerbaijan (Grigoryan, 2018: 69). As understood that, RF is an effective and influential actor for Armenia. Because as Grigossian stated, Armenia is dependent on RF with “3G” (weapons, gas, goods) (Giragossian, 2019 :5). Armenia is not only dependent on RF with 3G, but also in the electricity sector. Electric Networks of Armenia, the monopoly electricity supplier in Armenia, is owned by the Russian Inter RAO, whose chairman Igor Sechin has close relations with Putin (Luhn, 2015).

Since 2010, there have been developments in Armenia’s security policy that have negatively affected RF relations with Armenia. Between 2010 and 2014, RF and Azerbaijan signed agreements worth \$4 billion for the supply of helicopters, air defence systems, tanks, and artillery. Reacting to the agreements, Maria Zaharova, the Russian Foreign Ministry spokeswoman at the time, stated that the arms deliveries to Azerbaijan were made taking into account the “balance of power” in the region (Sputniknews, 2016). Moreover, RF put pressure on Armenia to choose between the EU and the Russian-led Eurasian Economic Union (EEU). Prior to the EU’s Vilnius Summit, RF had increased the price of natural gas for Armenia by 50%. Former Russian Ambassador to Armenia Vyacheslav Kovalenko urged Armenia that if Armenia-EU relations improved, RF relations would deteriorate and RF would side with Azerbaijan in the Nagorno-Karabakh issue. After the pressure from RF, Armenia didn’t sign

the free trade agreement with the EU (Ismayıl, 2016: 140-141). After this political move, Armenia preferred the Eurasian integration process led by RF in the European-Eurasian competition. In this context, Armenia became a member of the EEU on January 1, 2015 (Elbir, 2017).

Despite this preference for Armenia, the arms trade between RF and Azerbaijan continued and Azerbaijan won the “Four-Day War” that took place from April 2-6, 2016. After the “Four-Day War”, Armenia signed a Comprehensive and Enhanced Partnership Agreement (CEPA) in November 2017, which entered into force on March 1, 2021 (euneighbours.eu, 2021). These and similar policy decisions have led RF to be skeptical of Serzh Sargsyan's government. Sargsyan's post-Armenian policies created important fractures in RF -Armenia relations. Sargsyan's desire to change the constitution in order to stay in power longer met with a strong reaction from the Armenian opposition. The victory of Nikol Pashinyan against former GAZPROM employee Karen Karapetyan, who is believed to be supported by RF, as well as the fact that he worked with individuals who opposed RF and the EEU, were pro-Western, and even had organic ties to the Soros Foundation, such as Armen Grigoryan, negatively affected RF -Armenia relations and even brought to mind the question “A new Maidan?” (Quated Jane, 2020: 392-393). Russian scepticism about Pashinyan led to Armenia's defeat in the Second Karabakh War (Forty-Four Days War) in 2020. RF didn't intervene in the war until Azerbaijan captured Shusha. Azerbaijan recaptured 7 rayons adjacent to Nagorno-Karabakh and Shusha with ceasefire at the end of the war. According to the ceasefire, Russian peacekeepers are stationed in the Lachin corridor. The ceasefire is similar to the proposed Lavrov plan, which calls for Armenia's withdrawal from the occupied territories around Nagorno-Karabakh, and a Russian peacekeeping force would enter the region to ensure the safety of Armenians in Karabakh (De Waal, 2020). RF displayed its hegemony in South Caucasus with Second Karabakh War and events before it.

As can be seen from the above developments, Azerbaijan and Armenia are seeking an alternative foreign policy. But Azerbaijan has a more versatile set of foreign policy tools compared to Armenia. After the time of Heydar Aliyev, Azerbaijan has pursued a balanced and neutral foreign policy and commercialized Azerbaijani hydrocarbon resources. Azerbaijan also maintains good and balanced relations with Georgia, RF, and Turkey. In the Elchibey period, Azerbaijan had poor relations with Iran, but after the Elchibey period, relations between Iran and Azerbaijan became more balanced. A versatile foreign policy gave Azerbaijan advantages, Azerbaijan's economy began to grow and the economic gap between Azerbaijan and Armenia

became in Azerbaijan's favor. Unlike Azerbaijan, Armenia has problems with international law, and Armenian foreign policy is essentially focused on the Nagorno-Karabakh problem. There beside Armenia is perceived as threat by Turkey, Georgia and Azerbaijan. So that Armenia is isolated in region and became dependent on RF militarily and economically. Therefore, Armenia's alternative foreign policy attempts like EU cause security problems for Armenia. As seen in the Second Karabakh War, the alternative cost of Western-oriented foreign policies for Armenia has been the loss of status in Karabakh. The economic development of Azerbaijan resulting from its versatile foreign policy has also been reflected in its military expenditures, and this has deeply affected the Azerbaijan-Armenia relations. In addition, Armenia is perceived as a threat by Turkey, Georgia, and Azerbaijan. As a result, Armenia has become isolated in the region and militarily and economically dependent on RF. Therefore, Armenia's alternative foreign policy attempts such as the EU cause security problems for Armenia. As the Second Karabakh War has shown, the price of a Western-oriented foreign policy for Armenia has been the loss of status in Karabakh. Azerbaijan's economic development, resulting from its multifaceted foreign policy, has also been reflected in its military spending, which has severely affected relations between Azerbaijan and Armenia.

3. Existing Arguments about Military Expansion and Economic Development

Some studies such as (Deger and Smith, 1983), (Deger, 1986), (Dunne and Smith 2010) and (Dimitraki and Ali, 2013) argue that due to the transfer of resources from the civilian sector to the military sector, which imposes a heavy financial burden on the civilian sector and also reduces private savings, there is a negative relationship between military spending and economic development. In contrast, some of the studies such as Ram (1995) find a positive relationship between military spending and economic development. Benoit (1973) and (Fanini et. al 1984) indicate that military spending has a growth promoting effect on the economy in 44 developing countries. (Smith and Smith, 1980) claims that military spending helps states protect themselves from external threats and encourages foreign investment. Dunne (1996), considering developing countries, summarises that military spending has no significant impact on economic growth.

Dunne and Uye (2008) point out that 39% of panel data studies (cross-country) and 35% of time series studies (case studies) show that military spending has a negative effect on growth, but about 20% of both types of studies show a positive effect (Dimitraki and Ali, 2015). A more comprehensive analysis (Furuokaa, Oishib, and Karim, 2014) estimates five different models to study the relationship between military spending and economic development. These models

can generally be divided into three main hypotheses. They are “Military-led Standard of Living Improvement Hypothesis”, “Military Burden Hypothesis” and “Military-led Economic Growth Hypothesis”. The variables of the models are almost identical but the variables must use different values (current, real and aggregate value). These hypotheses and their submodels can be formulated as follows:

1. Military-led Standard of Living Improvement Hypothesis
 - a. The model in current value: which examines the relationship between GDP per capita in current value and military spending per capita in current value.
 - b. The model in real value: which examines the relationship between GDP per capita in constant value and military spending per capita in constant value.
2. Military-led Economic Growth Hypothesis:
 - a. The model in Aggregate Value: It examines the relationship between GDP in current value and military spending in current value.
3. Military Burden Hypothesis
 - a. Military Burden Hypothesis: It examines the relationship between the growth rate of GDP per capita in constant value and military spending as a share of GDP) which is a proxy for military burden.

As you can see, there is no other difference between Military-led Standard of Living Improvement Hypothesis and Military-led Economic Growth Hypothesis. Therefore, we can extend findings of one hypothesis to another one. Therefore, we can apply the results of one hypothesis to the other. (Furuoka, Oishi, and Karim 2016) used the current value of GDP per capita and military spending per capita to examine the relationship between military spending and economic development in China. They give three reasons for this: the first reason is China's huge population, so the per capita indicators rather than the total value of GDP might be sufficient as variables to capture the relationship between military spending. The second reason is the price effect, and another reason is methodological problems caused by the same denominator due to the use of ratio variables.

Although Armenia and Azerbaijan have small populations compared to China, looking at the per capita index may be more appropriate to determine the relationship between military spending and its impact on individual households.

Considering previous studies, data availability, and the above comments, we choose a model for Military-led Standard of Living Improvement Hypothesis which could be also covering Military-led Economic Growth Hypothesis, and Military Burden Hypothesis. For a

clear understanding of the impact on our hypothesis and also considering the order of integration of series, each model is estimated using three different methods: One of them is the ARDL Bound Model developed by (Pesaran, Shin, and Smith 2001) which in our case can be written as follows:

$$\Delta GDP_{cpc} = \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta GDP_{cpc,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta MS_{cpc,t-q} + \beta_0 GDP_{cpc,t-1} + \beta_1 MS_{cpc,t-1} + \varepsilon_t$$

Eq1

Where Δ is the difference operator and q the number of lags of each variable. GDP_{cpc} is per capita GDP in current value, MS_{cpc} : per capita military spending in current value. The null hypothesis is: $H_0: \beta_0 = \beta_1 = 0$ and $H_1: \beta_0 \neq 0, \beta_1 \neq 0$

The second and third is NARDL and multiplier model developed by (Shin et al. 2014) and (Greenwood-Nimmo, Shin, and van Treeck n.d.) which in our case can be written as follows:

Considering the asymmetric long-run relationship for the Nonlinear ARDL model: $y_t = \beta^+ x_t^+ + \beta^- x_t^- + u_t$ where x_t : $k \times 1$ vector of regressors decomposed as $x_t = x_0 + x_t^+ + x_t^-$ Where x_t^+ ve x_t^- are partial sum processes of positive and negative changes in x_t defined by

$$x_t^+ = \sum_{j=1}^t \Delta x_j^+ = \sum_{j=1}^t \max(\Delta x_j, 0), x_t^- = \sum_{j=1}^t \Delta x_j^- = \sum_{j=1}^t \min(\Delta x_j, 0)$$

and β^+ , β^- are the associated asymmetric long-run parameters. The model can be written in error-correction form as follows:

$$\Delta y_t = \rho y_{t-1} + \theta^+ x_{t-1}^+ + \theta^- x_{t-1}^- + \sum_{j=1}^{p-1} \gamma_j \Delta y_{t-j} + \sum_{j=0}^q (\pi_j^+ \Delta x_{t-j}^+ + \pi_j^- \Delta x_{t-j}^-) + \varepsilon_t,$$

The null hypothesis: $\rho = \theta^{\text{pos}} = \theta^{\text{neg}} = 0$

The steady state of the model is:

$$m_h^+ = \sum_{j=0}^h \frac{\partial y_{t+j}}{\partial x_t^+} \quad h=0, 1, 2, \dots$$

$$m_h^- = \sum_{j=0}^h \frac{\partial y_{t+j}}{\partial x_t^-}$$

where m_h^+ and m_h^- tend toward the respective asymmetric long-run coefficients $\beta^+ = \theta^+ / -\rho$ and $\beta^- = \theta^- / -\rho$, respectively, as $h \rightarrow \infty$. In our case NARDL:

$$\begin{aligned} \Delta GDP_{cpc_{AR}} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta GDP_{cpc,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta MS_{cpc,t-q}^{pos} + \\ & \sum_{q=0}^{p3} \alpha_{3q} \Delta MS_{cpc,t-q}^{neg} + \beta_0 GDP_{cpc,t-1} + \\ & \beta_1 MS_{cpc,t-1}^{pos} + \beta_2 MS_{cpc,t-1}^{neg} + \varepsilon_t \end{aligned}$$

Eq2

Δ Where is the difference operator and q the number of lags of each variable. The null hypothesis is: $H_0 : \beta_0 = \beta_1 = \beta_2 = 0$ and alternative hypothesis is: $H_1 : \beta_0 \neq 0, \beta_1 \neq 0, \beta_2 \neq 0$

4. Military-led Standard of Living Improvement Hypothesis:

ARDL (Eq3) and NARDL (Eq4) models for estimating of Military-led Standard of Living Improvement Hypothesis for Armenia:

$$\begin{aligned} \Delta LGDP_{cpc_{AR}} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{cpc_{AR},t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{cpc_{AR},t-q} \\ & + \beta_0 LGDP_{cpc_{AR},t-1} + \beta_1 LMS_{cpc_{AR},t-1} + \varepsilon_t \end{aligned}$$

Eq3

$$\begin{aligned} \Delta LGDP_{cpc_{AR}} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{cpc_{AR},t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{cpc_{AR},t-q}^{pos} + \\ & \sum_{q=0}^{p3} \alpha_{3q} \Delta LMS_{cpc_{AR},t-q}^{neg} + \beta_0 LGDP_{cpc_{AR},t-1} + \\ & \beta_1 LMS_{cpc_{AR},t-1}^{pos} + \beta_2 LMS_{cpc_{AR},t-1}^{neg} + \varepsilon_t \end{aligned}$$

Eq4

ARDL (Eq5) and NARDL (Eq6) models for estimating of Military-led Standard of Living Improvement Hypothesis for Azerbaijan:

$$\begin{aligned} \Delta LGDP_{cpc_{AZ}} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{cpc_{AZ},t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{cpc_{AZ},t-q} + \beta_0 LGDP_{cpc_{AZ},t-1} \\ & + \beta_1 LMS_{cpc_{AZ},t-1} + \varepsilon_t \end{aligned}$$

Eq5

$$\begin{aligned} \Delta LGDP_{cpc_AZ} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{cpc_AZ,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{cpc_AZ,t-q}^{pos} + \\ & \sum_{q=0}^{p3} \alpha_{3q} \Delta LMS_{cpc_AZ,t-q}^{neg} + \beta_0 LGDP_{cpc_AZ,t-1} + \\ & \beta_1 LMS_{cpc_AZ,t-1}^{pos} + \beta_2 LMS_{cpc_AZ,t-1}^{neg} + \varepsilon_t \end{aligned}$$

Eq6

Where; $LGDP_{CPC_AR}$: log of per capita GDP in current value in Armenia
 LMS_{CPC_AR} : log of per capita military spending in current value in Armenia
 $LGDP_{CPC_AZ}$: log of per capita GDP in current value in Azerbaijan
 LMS_{CPC_AZ} : log of per capita military spending in current value in Azerbaijan

5. Military Burden Hypothesis:

In this model, we examine the relationship between growth rate of GDP per capita in constant value and military spending (military spending as a share of GDP) which is a proxy for military burden. ARDL (Eq7) and NARDL (Eq8) models for estimating of Military Burden Hypothesis for Armenia:

$$\begin{aligned} \Delta LGDP_{PCGROWTH_AR} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{PCGROWTH_AR,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{PCGROWTH_AR,t-q} \\ & + \beta_0 LGDP_{cpc_AR,t-1} + \beta_1 LMS_{PCGROWTH_AR,t-1} + \varepsilon_t \end{aligned}$$

Eq7

$$\begin{aligned} \Delta GDP_{PCGROWTH_AR} = & \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{PCGROWTH_AR,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{PCGROWTH_AR,t-q}^{pos} \\ & + \sum_{q=0}^{p3} \alpha_{3q} \Delta LMS_{PCGROWTH_AR,t-q}^{neg} + \beta_0 LGDP_{PCGROWTH_AR,t-1} \\ & + \beta_1 LMS_{PCGROWTH_AR,t-1}^{pos} + \beta_2 LMS_{PCGROWTH_AR,t-1}^{neg} + \varepsilon_t \end{aligned}$$

Eq8

ARDL (Eq9) and NARDL (Eq10) models for estimating of Military Burden Hypothesis for Azerbaijan:

$$\Delta LGDP_{PCGROWTH_AZ} = \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{PCGROWTH_AZ,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{PCGROWTH_AZ,t-q} + \beta_0 LGDP_{PCGROWTH_AZ,t-1} + \beta_1 LMS_{PCGROWTH_AZ,t-1} + \varepsilon_t$$

Eq9

$$\begin{aligned} \Delta GDP_{PCGROWTH_AZ} &= \alpha_0 + \sum_{q=1}^{p1} \alpha_{1q} \Delta LGDP_{PCGROWTH_AZ,t-q} + \sum_{q=0}^{p2} \alpha_{2q} \Delta LMS_{PCGROWTH_AZ,t-q}^{pos} \\ &+ \sum_{q=0}^{p3} \alpha_{3q} \Delta LMS_{PCGROWTH_AZ,t-q}^{pos} + \beta_0 LGDP_{PCGROWTH_AZ,t-1} \\ &+ \beta_1 LMS_{PCGROWTH_AZ,t-1}^{pos} + \beta_2 LMS_{PCGROWTH_AZ,t-1}^{neg} + \varepsilon_t \end{aligned}$$

Eq10

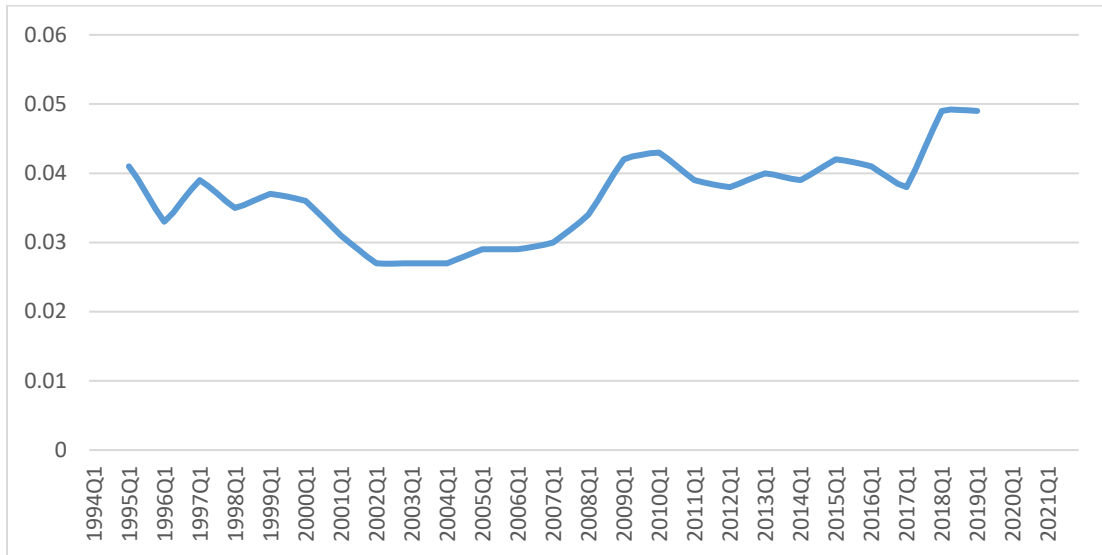
Where; $GDP_{PCGROWTH_AR}$: growth rate of GDP per capita in current value in Armenia
 $GDP_{PCGROWTH_AZ}$: growth rate of GDP per capita in current value in Azerbaijan
 $MS_{PCGROWTH_AZ}$: growth rate of MS per capita in current value in Azerbaijan
 $MS_{PCGROWTH_AR}$: growth rate of MS per capita in current value in Armenia

GDP (gross domestic product of Azerbaijan, in US dollars) and military spending in US dollars over the period of 1994 to 2020. Data for military spendings were obtained from Stockholm International Peace Research Institute (SIPRI)¹, GDP and growth of GDP from World Bank (World Development Indicators (WDI) and IMF.

¹ <https://www.sipri.org/databases>

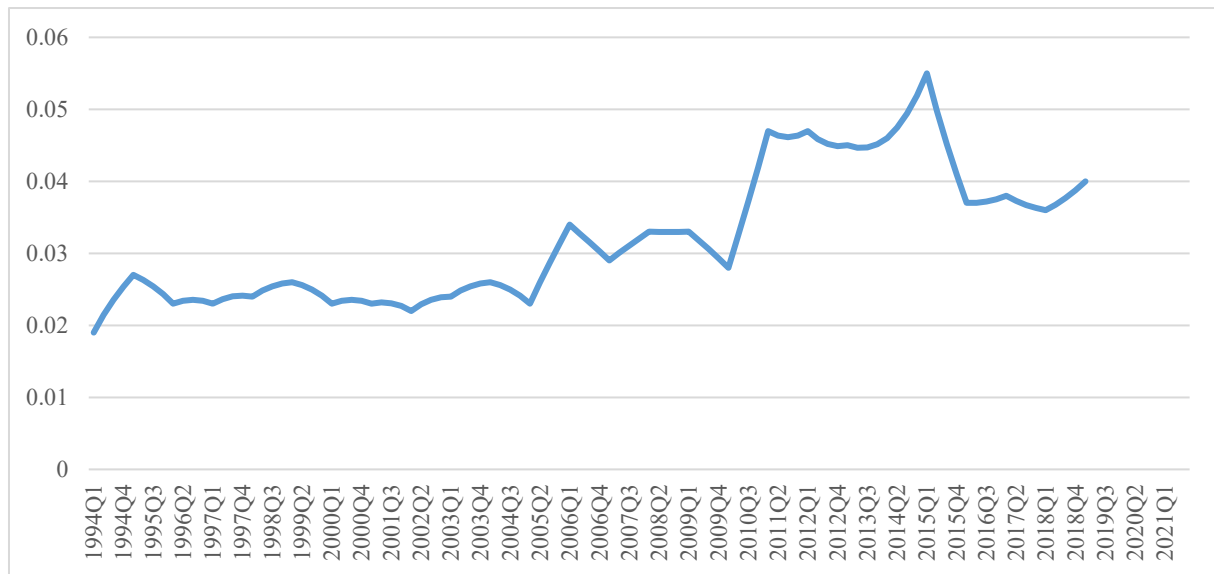
6. Empirical Evidence

Officially, frequency of the series are yearly. Due to degree of freedom, the variables are transformed from yearly frequency into quarterly frequency by using Litterman methodology. Graph 1 shows Military Spending Share of GDP for Armenia:



Graph 1. Military Spending Share of GDP for Armenia

Dataset and graph 1 provides a comprehensive view of Armenia's military spending share of GDP from 1995Q1 to 2019Q4. Analyzing the data reveals several key insights. There is a discernible trend in military spending share over time, indicating fluctuations and potential shifts in national priorities or geopolitical circumstances. Based on the data, The average military spending share of GDP over the specified quarters is approximately 0.036. The median military spending share of GDP is approximately 0.037. The standard deviation measures the dispersion of data around the mean. Standard deviation of Armenia's military spending share of GDP is 0.0059. Graph 2 shows Azerbaijan's military spending share of GDP.



Graph 2. Military Spending Share of GDP for Azerbaijan

According to Graph 2, the share of military spending in relation to GDP has demonstrated fluctuations over the years, witnessing both periods of increase and decrease. Assessing the data, the average share of military spending in GDP across the specified quarters stands at approximately 0.032, with a median close to 0.030. The standard deviation serves as a measure of data dispersion around the mean, with Armenia's military spending share of GDP exhibiting a standard deviation of 0.0089. To determine the order of integration of the series Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests have been applied.

Table 2

Unit Root Test²

Variables	ADF ³		PP ⁴	
	Intercept	Intercept and trend	Intercept	Intercept and trend
<i>LGDP_{CPC_AR}</i>	-1.45(7)	-1.39 (7)	-0.21(7)	-2.31(8)
<i>ΔLGDP_{CPC_AR}</i>	-2.64(9)*	-3.20(6)**	-3.31(4)***	-3.21(4)*
<i>LGDP_{CPC_AZ}</i>	-1.78(7)	-1.90(7)	-0.50(8)	-2.35(8)
<i>ΔGDP_{CPC_AZ}</i>	-2.70(6)**	-2.56(5)*	-2.58(2)**	-2.44(2)
<i>LMS_{CPC_AR}</i>	-1.00(10)	-1.79(10)	-2.60(6)*	-3.65(6)**
<i>ΔLMS_{CPC_AR}</i>	-2.70(9)**	-2.75(9)	-5.05(4)***	-4.94(4)***
<i>LMS_{CPC_AZ}</i>	-1.88(6)	-1.03(6)	-2.49(5)	-2.14(5)
<i>ΔLMS_{CPC_AZ}</i>	-3.23(5)**	-3.59(5)**	-7.71(2)***	-7.43(2)***
<i>GDP_{PCGROWTH_AZ}</i>	-1.97(7)	-2.29(7)	-2.72(7)**	-2.70(7)
<i>ΔGDP_{PCGROWTH_AZ}</i>	-3.14(6)**	-3.16(6)*	-2.89(5)**	-2.98(6)*

² All series are seasonally adjusted

³ Based on Schwartz Info Criterion

⁴ Based on Bartlett Kernel

$GDP_{PCGROWTH_AR}$	-3.34(1)***	-3.52(1)**	-2.27(3)	-2.38(3)
$\Delta GDP_{PCGROWTH_AR}$	-4.60(0)***	-4.58(0)***	-4.82(2)***	-4.80(2)***
$MS_{PCGROWTH_AZ}$	-1.13(5)	-2.22(5)	-1.59(3)	-2.18(2)
$\Delta MS_{PCGROWTH_AZ}$	-4.36(4)***	-4.33(4)***	-5.02(0)***	-4.98(0)***
$MS_{PCGROWTH_AR}$	-1.06(5)	-2.38(5)	-0.76(5)	-2.06(5)
$\Delta MS_{PCGROWTH_AR}$	-2.84(5)**	-3.3(5)*	-3.6(0)***	-3.59(0)**

Note. The signs *, ** and *** represent 10%, 5%, and less than 1% significance level, respectively and parenthesis show the optimum number of lags.

The unit root test results is presented in Table 2. Based on Table 2, some of the series such as LMS_{CPC_AR} , $GDP_{PCGROWTH_AR}$ are stationary at level (I(0)) and other series are stationary at first differences (I(1)). Therefore, none of the series is stationary at I (2) which means we can apply to ARDL and NARDL models.

Table 3 shows long-run coefficients of Military-led Standard of Living Improvement models or long run effect of LMS_{CPC_AR} and LMS_{CPC_AZ} to $LGDP_{CPC}$ for both Azerbaijan and Armenia.

Table 3

Military-led Standard of Living Improvement Hypothesis

Variables	ARDL(4,4) Model 1 (AR) Eq3	NLARDL (4,1,0) Model 2 (AR) Eq4	ARDL(3,3) Model 3 (AZ) Eq5	NLARDL (3,2,2) Model 4 (AZ) Eq6
	Long Run Coefficients	Long Run Coefficients	Long Run Coefficients	Long Run Coefficients
C	2.082** (22.38)	-0.60 (-0.01)	4.52 (28.42)	4.87*** (27.99)
LMS_{CPC_AR}	1.22** (2.48)	-	0.77*** (22.8)	-
LMS_{CPC}^+	-	1.55 (0.18)	-	0.78*** (5.19)
LMS_{CPC}^-	-	2.45 (0.12)	-	0.95*** (5.19)
EC_{-1}	0.005 ⁵ (0.65)	0.00006 ⁶	-0.015 ⁷ ** (-2.34)	-0.014 ⁸ ** (-2.14)
F-Bounds	1.92	1.32	3.53*	1.67
χ^2_{RESET}	3.05	2.08	1.08	9.01
CUSUM	Stable	stable	stable	stable
CUSUMQ	Usstable	stable	unstable	stable

Note. The signs *, ** and *** represent 10%, 5%, and less than 1% significance level, respectively.

⁵ $EC_{-1} = LGDP_{CPC_AR} - (1.22 \times LMS_{CPC_AR} + 2.08)$

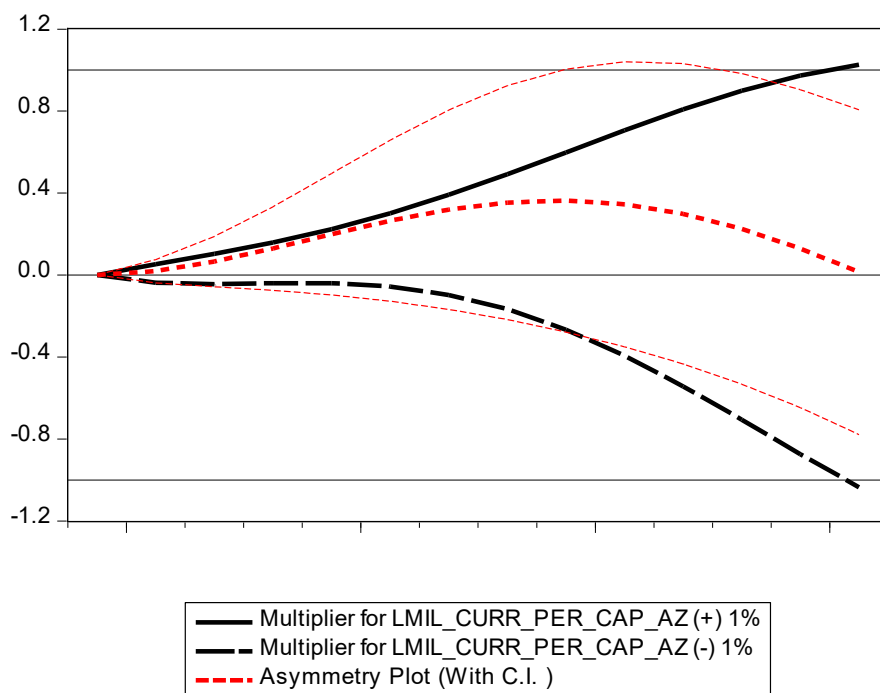
⁶ $EC_{-1} = LGDP_{CPC_AR} - (1.55 \times LMS_{CPC_AR}^+ + 2.45 \times LMS_{CPC_AR}^- - 0.60)$

⁷ $EC_{-1} = LGDP_{CPC_AZ} - (0.76 \times LMS_{CPC_AZ} + 4.52)$

⁸ $EC_{-1} = LGDP_{CPC_AZ} - (0.78 \times LMS_{CPC_AZ}^+ + 0.95 \times LMS_{CPC_AZ}^- + 4.87)$

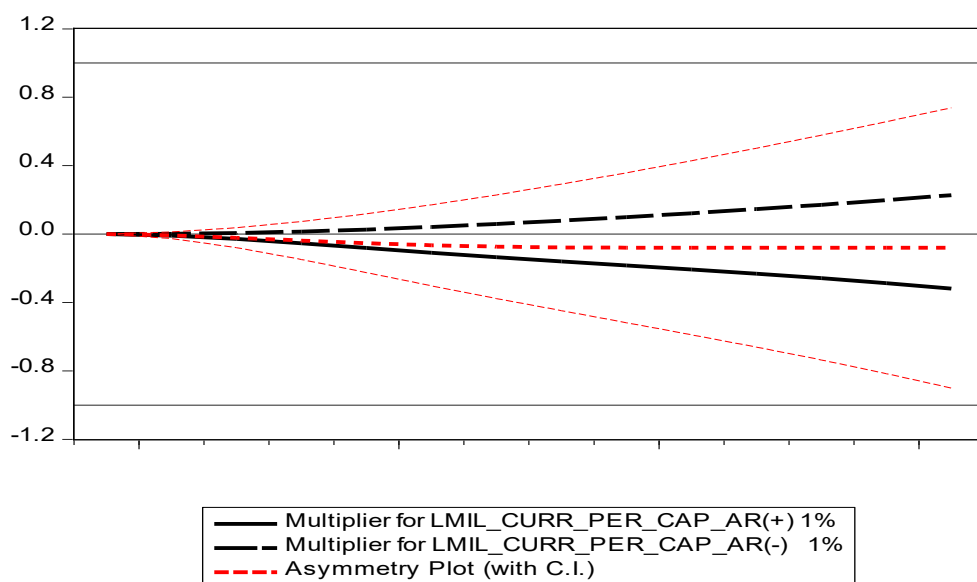
Table 3 shows that the coefficient of military spending in the case of Armenia is positive and statistically significant for the $LGDP_{CPC_AR}$. F-Bound is below the critical value of 95%. The coefficient of the error term is (0.005) which is not in accepted range (between -1 and 0) indicating that there is no long term relationship between the variables. Thus, there is no long term relationship between LMS_{CPC_AR} and $LGDP_{CPC_AR}$. The same result applies to the NARDL model. The coefficient of the error term of NARDL model is (0.00006) which is not acceptable range (between -1 and 0) and also it is not statistically significant. This indicates that speed of adjustment for ARDL Bound and NARDL model for Armenia is explosive.

In the case of Azerbaijan coefficient of ECT(-1) in the ARDL model is -0.015 which is in the accepted range (between -1 and 0) and F-Bound is greater than the upper bound of %95. So, there is a long term relationship between LMS_{CPC_AZ} and $LGDP_{CPC_AZ}$. This relationship is positive and statistically significant. F-Bound of the NARDL model is smaller than the lower bound of confidence level of %90 which means that there is no running effect between the variables. According to the ARDL Bound model, the increase in military spending has a positive impact on the standard of living or well-being of Azerbaijanis. This result is not really confirmed by the results of the NARDL model. For better understanding, we used the multiplier effects. The dynamic multiplier effects of military spending on well-being in Azerbaijan and Armenia are shown in graph 1 and graph 2.



Graph 3. Dynamic Multipliers effect of military spending on well-being of Azerbaijan

According to Graph 3 the differences of the $LMS_{CPC_{AZ}}^+$ and $LMS_{CPC_{AZ}}^-$ has positive affect on $LGDP_{CPC_{AZ}}$ which present same results with ARDL Bound mode in Table 3. According to Graph 4 in case of Armenia; $LMS_{CPC_{AR}}^+$ has negative and $LMS_{CPC_{AR}}^-$ has positive effect on well-being. But differences of the $LMS_{CPC_{AR}}^+$ and $LMS_{CPC_{AR}}^-$ has low-negative affect on $LGDP_{CPC_{AR}}$. While this effect is near zero and it is not statistically important.



Graph 4. Dynamic Multipliers effect of military spending on well-being of Armenia

Thus, the dynamic multiplier effect of military spending has no asymmetric positive impact on the level of living standards or welfare in Armenia. In summary, we can say that military spending has no positive effect on well-being in Armenia, but the effect of military spending on the level of living standards or well-being in Azerbaijan is positive in both the ARDL Bound and the multiplier effect.

Table 4

Military Burden Hypothesis

Variables	ARDL(2,2) Model 1 (AR) Eq7	NLARDL (2,2,0) Model 2 (AR) Eq8	ARDL(3,2) Model 3 (AZ) Eq9	NLARDL (2,3,1) Model 4 (AZ) Eq10
	Long Run Coefficients	Long Run Coefficients	Long Run Coefficients	Long Run Coefficients
C		2.24 (0.58)	35.81*** (2.96)	12.91*** (3.75)
$MS_{PCGROWTH}$	-562.27***	-	-866.9***	

	(-3.20)		(-2.43)	
$MS_{PCGROWTH}^+$	-	-6.15.0***	-	-372.2
		(-3.29)		(-1.17)
$MS_{PCGROWTH}^-$	-	-732.15***	-	-388.7
		(-2.68)		(-0.81)
EC_{-1}	-0.119***	-0.11710***	-0.01111***	-0.0312***
	(-3.59)	(-3.68)	(-3.16)	(-3.08)
F-Bounds	4.57**	4.08**	4.31**	3.37*
χ^2_{RESET}	0.012	0.18	1.73	0.65
CUSUM	stable	stable	stable	Unstable
CUSUMSQ	unstable	unstable	stable	Stable

Note. The signs *, ** and *** represent 10%, 5%, and less than 1% significance level, respectively.

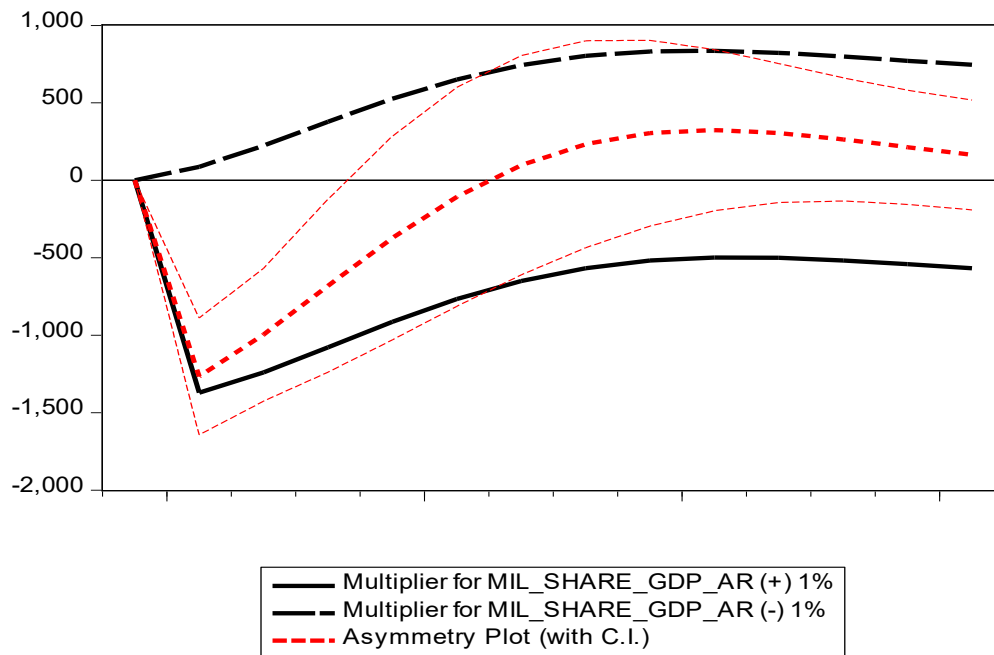
According to the results of Table 4, the variables are cointegrated in all four models and there is a long-term relationship between $GDP_{PCGROWTH}$ and all variables of $MS_{PCGROWTH}$ in all models for both Azerbaijan and Armenia. This relationship for both countries is negative and statistically significant (except NARDL model for Azerbaijan, which is not statistically significant). This shows that military spending is a burden for households of both country. To better understand the models, we estimate the dynamic multiplier effect of $MS_{PCGROWTH}$ on $GDP_{PCGROWTH}$. The results are shown in Graph 5 and Graph 6:

⁹ $EC_{-1} = GDP_{PCGROWTH_AR} - (-562.27 \times MS_{PCGROWTH_AR} + 27.31)$

¹⁰ $EC_{-1} = GDP_{PCGROWTH_AR} - (-615.02 \times MS_{PCGROWTH_AR}^+ - 732.15 \times MS_{PCGROWTH_AR}^- + 2.24)$

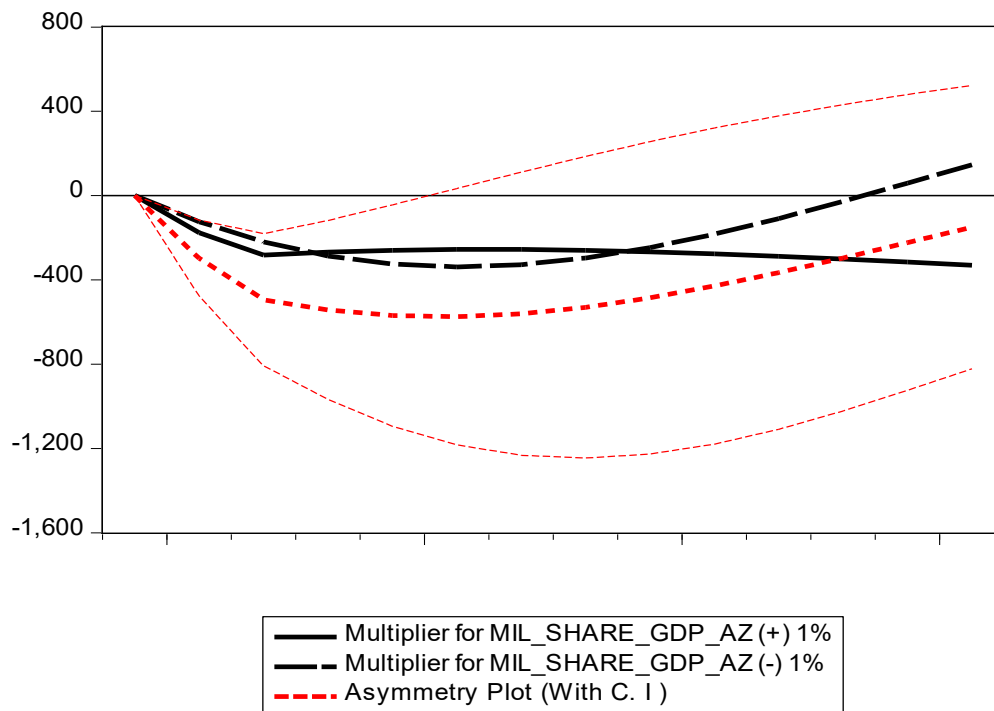
¹¹ $EC_{-1} = GDP_{PCGROWTH_AZ} - (-866.93 \times MS_{PCGROWTH_AZ}^+ + 35.81)$

¹² $EC_{-1} = GDP_{PCGROWTH_AZ} - (-372.29 \times MS_{PCGROWTH_AZ}^+ + 388.77 \times MS_{PCGROWTH_AZ}^- + 12.91)$



Graph 5. Dynamic Multipliers effect of differences of $MS_{PCGROWTH_AR}$ to $GDP_{PCGROWTH_AR}$ for Armenia: (Military Burden Hypothesis for Armenia)

According to graph 5, the effect of $MS_{PCGROWTH_AR}^+$ and $MS_{PCGROWTH_AR}^-$ on $GDP_{PCGROWTH_AR}$ are mainly negative. While after 2017q03 this effect changed to positive which indicates that the effect of military spending after 2017q03 has not Military Burden on Armenia. As graph 4 shows; in case of Azerbaijan the effect of $MS_{PCGROWTH_AZ}^+$ and $MS_{PCGROWTH_AZ}^-$ on in all period are negative which indicate that military spending was Military Burden on Azerbaijanian.



Graph 6. Dynamic Multipliers of differences of $MS_{PCGROWTH_AZ}$ to $GDP_{PCGROWTH_AZ}$ for Azerbaijan: (Military Burden Hypothesis for Azerbaijan)

As in Graph 6, the effects of $MS_{PCGROWTH}^+$ and $MS_{PCGROWTH}^-$ on $GDP_{PCGROWTH}$ are mostly negative. However, in the case of Armenia, the negative effect (in the dynamic case) changed to positive after 2017q3. While this effect is completely negative for Azerbaijan, which shows that the military burden hypothesis holds for both countries, but this negative effect for Armenia is not as strong as for Azerbaijan.

7. Conclusion

The dissolution of the USSR had an enormous impact not only on the nature of the international system but also on relations among the newly independent post-Soviet states. Particularly protracted conflicts destabilized the post-Soviet regions. The Nagorno-Karabakh problem is also one of these protracted conflicts. At first glance, the Nagorno-Karabakh problem seems to be between Azerbaijan and Armenia. But this problem is historically deep-rooted and dates back to the time of the Russian Tsarist Empire. So, the political entities created by the Russians played an important role in the Nagorno-Karabakh problem. But Nagorno-Karabakh problem became internationalized after ending Cold War but still RF was determinant actor on this problem. It's the fact that RF should definitely not be neglected in this protracted problem but it doesn't mean that Azerbaijan and Armenia are completely passive actors in South Caucasus sub-regional system. So foreign policy skills and versatility became

determinant factor from the First Karabakh War to Second Karabakh War. But the Nagorno-Karabakh problem was internationalized after the end of the Cold War, but RF was still the determining actor in this problem. However, the fact that RF should definitely not be neglected in this protracted problem doesn't mean that Azerbaijan and Armenia are completely passive actors in the subregional system of the South Caucasus. Thus, foreign policy capabilities and versatility became a decisive factor between the First and Second Karabakh Wars. In other words, Azerbaijan changed the status quo in Nagorno-Karabakh vis-à-vis Armenia through a multivectoral foreign policy and the use of natural resources without neglecting RF interests in the region. The multivectoral foreign policy brought Azerbaijan good economic conditions and military advantages over Armenia.

In this study, we mainly try to investigate the long-term relationship between military expenditure and economic conditions under Military Burden Hypothesis and Military-led Standard of Living Improvement Hypothesis formwork in Azerbaijan and Armenia case, during period 1994 to 2020.

The results of the emperical work show that military spending in Azerbaijan supports the Military-led Standard of Living Improvement Hypothesis in Azerbaijan while military spending has little positive impact on well-being in Armenia. The impact of military spending on the level of living standard or well-being in Azerbaijan is positive in both the ARDL Bound and multiplier effect.

In the case of Military Burden Hypothesis, military spending is a burden on the budgets of both states. However, Military Burden is much more effective for Azerbaijan than Armenia and the negative impact of military spending is smaller in Armenia than in Azerbaijan.

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List of abbreviations:

AZ: Azerbaijan

AR: Armenia

ADF: Augmented Dickey-Fuller

ARDL: Autoregressive Distributed Lag (ARDL)

NARDL: A Nonlinear Autoregressive Distributed Lag

CUSUM: Cumulative Sum Control

CUSUMQ: Cumulative Sum of Squares

ECT or EC: Error Correction Term(S)

GDP: Gross domestic product

IMF: International Monetary Fund

PP: Phillips-Perron

***LGDP_{CPC_AR}*:** log of per capita GDP in current value in Armenia

***LMS_{CPC_AR}*:** log of per capita military spending in current value in Armenia

***LGDP_{CPC_AZ}*:** log of per capita GDP in current value in Azerbaijan

***LMS_{CPC_AZ}*:** log of per capita military spending in current value in Azerbaijan

***GDP_{PCGROWTH_AR}*:** growth rate of per capita GDP in current value in Armenia

***GDP_{PCGROWTH_AZ}*:** growth rate of per capita GDP in current value in Azerbaijan

***MS_{PCGROWTH_AZ}*:** growth rate of per capita MS in current value in Azerbaijan

***MS_{PCGROWTH_AR}*:** growth rate of per capita MS in current value in Armenia