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## **History**

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# **Georgia as a Transit Territory Linking Persia to Europe (the 16th-17th centuries)**

*Alasania Giuli,  
The University of Georgia*

*From ancient times Georgia represented the shortest way to link the Black and Caspian Seas and countries of the East and West. Apart from the Italian city-states, Georgians also had relations with other countries of Europe. It is thought that Poland must have been among the countries Georgia had contact with. From the mid-15th century, Georgia as well as Poland became actively involved in efforts to establish anti-Ottoman coalitions. The paper presents the relationship between Poland, Georgia and the Ottoman Empire, the mutual influence of those countries, their trade and political involvement.*

*In the struggle between the Ottoman Empire and Safavid Persia, Western countries, as a rule, took sides against the Ottoman Empire and considered Persia an ally from which various sorts of goods, mainly silk, was exported to the Western countries and which served as a connecting channel with India. Besides commercial interests, this was also justified from a political perspective: the powerful Ottoman Empire was a permanent threat for Europe in the period when Persia was a comparatively weaker state and posed less of a threat, however was attractive for the west in terms of commercial interests. This position was as strong and sustainable as Georgia's wish to have relations with Europe, for which in many cases Georgia had to compromise its direct interests. Even if Persia in some cases was more dangerous for Georgia, it joined anti-Ottoman coalitions in order to be closer to Europe.*

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In the struggle between the Ottoman Empire and Safavid Persia, Western countries, as a rule, took sides against the Ottoman Empire and considered Persia an ally from which various sorts of goods, mainly silk, was exported to the Western countries and which served as a connecting channel with India. Besides commercial interests, this was also justified from a political perspective: the powerful Ottoman Empire was a permanent threat for Europe in the period when Persia was a comparatively weaker state and posed less of a threat, however was attractive for the west in terms of commercial interests. This position was as strong and sustainable as Georgia's wish to have relations with Europe, for which in many cases Georgia had to compromise its direct interests. Even if Persia in some cases was more dangerous for Georgia, it joined anti-Ottoman coalitions in order to be closer to Europe.

The mutual sympathy of the Polish and Georgian people is based on a long and solid historical background. Frequently during their existence, the aim of both nations had been to gain independence or restore territorial integrity. Despite the geographic distance, common political objectives, economic interests and general orientation sometimes placed these two nations on the same political team, thus leading them towards indirect or direct relations.

Georgia has been the shortest route connecting the Black and the Caspian Seas since ancient times. Even though this route had often been unsafe, it was used more or less actively almost always and Georgia often connected the West and Asia for various purposes – conquest, trade, travel, pilgrimage, cultural or diplomatic relations.

The trade routes through Georgia played an important part in those relations and accordingly drew the attention of western as well as eastern countries. The famous Italian scholar Giuseppe Canale paid attention to the ancient trade route, which crossed Georgia and helped facilitate free and easy trade with Persia (Mamistvalishvili, 1981, p. 11). That route played an essential role in the growth and enrichment of the Italian city-republics – Venice, Genoa and Pisa. It is noteworthy that the route preserved its significance until the discovery of the Cape of Good Hope and the American continent.

After taking Constantinople (1453), the Turks controlled the straits of Dardanelles and the Bosphorus, which damaged the trade for Venice and Genoa. As a result in the 1470s the majority of diplomats travelled to Persia via Georgia.

According to the book of the famous Venetian merchant and traveller Marco Polo, in the last quarter of the 13<sup>th</sup> century Venetians knew the Black Sea coast very well, including the Georgian coast. But as Venetian diplomat Josafat Barbaro writes in his work “Travels to Tana and Persia”, the Venetians did not visit the Georgian coast as frequently as the merchants from Genoa.. This was due to their defeat in the Koji war (1378).

Apart from the Italian city-states, Georgians also had relations with other countries of Europe. It is thought that Poland must have been among the countries Georgia had contact with. After the union of Poland and Lithuania in 1386, the newly formed state sent its fleet through the Black Sea. This voyage was attempted from time to time. It is certain that the Polish-Lithuanian state came into contact with Georgia as well as other Eastern countries through the Genoese colonies located on the Crimean Peninsula, and the product it imported via Kaffa and Sebastopol was salt (Kveliashvili, 2005, pp. 82-83). Georgia and Poland represented the center of the route connecting the West and the East whose importance only increased when navigation was closed from time to time in the Black Sea for whatever reason. Such a situation occurred from the mid-15<sup>th</sup> century due to strengthening of the Ottoman state. Good relations were necessary between Poland and Georgia, because the Ottoman Empire posed a threat to these two states, as well as to others.

During the 15<sup>th</sup>-17<sup>th</sup> centuries, the Georgians and the Poles often participated in attempts to form anti-Ottoman coalitions, with the Cossacks also joining these coalitions. At the same time, trade and diplomatic relations were established between the two countries.

After the collapse of Constantinople, the Pope, with the support of Western countries, launched an anti-Ottoman campaign. On September 30, 1453, Pope Nicholas V (1447-1455) proclaimed a crusade against the Turks. Funds were raised and forces were mobilized.

Through a papal order, Nicholas V, as well as his successor, Pope Callixtus III (1455-1458), requested a tenth of the income from European sovereigns. Due to the inertness of Western Europe, which underestimated the importance of this confrontation, this initiative was carried out on a small scale. Nevertheless, Christian forces were able to achieve several victories.

The active involvement of the Pope did not end there, and Georgia remained among the allies, with the envoy of Pope Ludovicus of Bologna arriving in 1456 (Tamarishvili, 1902, p. 56; Paichadze, 1989, p. 81). This was only natural because the strengthening of the Ottoman Empire first of all posed a threat to Georgia, which once had been a powerful state but in the second half of the 15<sup>th</sup> century was divided into three kingdoms and several principalities. Ottoman attacks on Georgian lands began in the mid-15<sup>th</sup> century and became more frequent after the fall of the Empire of Trebizond. During this period Georgians actively participated in the anti-Ottoman coalitions launched on the initiative of the Pope. Georgians saw their salvation in rapprochement with Europe and were even willing to convert to Catholicism and unite again for this purpose.

The bishop of Siena, Enea Silvio de Piccolomini (later Pope Pius II) informed his friend, the Hungarian humanist, chancellor and bishop Giovanni Vitèz, that time had come for the world to unite in struggle against the Ottomans and for that he relied on "the Pope, the Emperor of Venice, Genoa, Trebizond and the Georgian King... together with Hungary, Russia, Germany" (Ninidze, 2003, p. 366). In his opinion, the initial axis of the Vatican and Burgundy had to be strengthened by the Eastern Christians (Georgia, Trabzond), Venice, Hungary and Poland (Kveliashvili, 2005, p. 77). These assumptions were made despite the fact

that during that time Poland was involved in the Thirteen Years' War with the Teutonic Order (1454-1466). During that War, the Pope called on the Poles to end the war (their hostilities) against the Order and resume their struggle against the infidel Ottomans. From the actions of the state, it is clear that these calls were not ignored, and Poland actually considered involvement in an anti-Ottoman movement.

Pope Callixtus III died two years later and was succeeded by the poet, humanist and scientist from Siena, Enea Silvio Bartolommeo De Piccolomini, or Pius II (1458-1464), "the most willing among the crusader Popes" (*Histoire des Papes*, 1842, p. 265).

Giorgi VIII was the first Georgian King who sent envoys to Europe for organizing an anti-Ottoman coalition (1458-1459). However, the European countries preferred an agreement with the Ottoman Empire. Although the envoys sent by the Georgian King – Nikoloz Tbileli, the envoy of Samtskhe Atabeg, Qvarqvare II – Parsadanand others, in 1460, were late for the Congress of Mantua of 1459, the readiness of Georgian rulers to get involved in the struggle against the Ottoman Empire is well documented in the sources (Tamarashvili, 1902, pp. 56-60). According to Layosh Tardy, when the representatives of Hungary were informed in Mantua that the Georgians had planned to participate in the Crusade by supplying a large number of troops, the Hungarian king, in admiration, pledged to commit 10,000 warriors (Tardy, 1980, p. 21).

Despite his best effort, Pius II was unsuccessful in assembling anti-Turkish forces. It appeared to be even more difficult during the reign of his successor, Paul II (1464-1471). The Ottoman Empire represented a rather powerful state by that time and Europe was even more divided. As the Pope and the German Emperor supported the Teutonic Order in the Thirteen Years' War against Poland (1454-1466), this aggravated their relations with this country (Malgozhata, 1995, pp. 74-75). Due to the understandable controversy with the Pope, the anti-Ottoman union was concluded between the King of Poland, Casimir Jagiellon and the King of Bohemia, George of Podebrad (Jerzy z Podiebradu) (1420 - 1471) in May of 1462, which, although unsuccessful, was directed against the initiative of the Pope (Kveliashvili, 2005, pp. 42-44). The King of Bohemia tried to maintain good relations with Catholics and the Pope, but the Catholics rebelled against him and were supported by the

Hungarian King, Matthias Corvinus. However, they could not gain the support of the Polish King (Picheta, 1947, p. 92).

Anti-Ottoman activities were constantly on the agenda in Poland and were carried out together with various allies, Georgia often among them. The significance of Georgia particularly increased after the collapse of Trebizond (1461), which connected Europe to Persia. In terms of the Polish-Georgian relations, the second attempt to form an anti-Ottoman coalition during the Ottoman-Venetian War in 1463-79 was more successful.

On April 12, 1471 the Polish envoy in Venice notified Hungarian King Matthias: "The envoy of the Georgian King, Constantine, arrived and declared that after the governor of their country reached an agreement with Uzun Hassan, he decided to place 30,000 horsemen under the command of the anti-Turkish camp. At the same time, Uzun Hassan also had a large number of troops." According to historian T. Tivadze, Uzun Hassan was the architect of the inclusion of Georgia in the anti-Ottoman coalition. The envoys sent to Venice by the King of Kartli Constantine II in 1471 first arrived from Trebizond to Manzikert and after that was admitted to the palace of the King of Poland, Casimir IV. Casimir Jagiellon sent his envoys with this mission (Ninidze, 2003, p. 377). That same year Nikoloz Tbileli, the envoy of the Kakhetian King George, arrived at Venice and met with the Pope and the King of Naples to form a coalition against the Ottoman Empire and Egypt. From this period onwards, cooperation between the Georgians and the Poles became more active. "From the letter sent to the envoys staying at the Palace of the Sicilian King by the Signoria of Venice dated April 22, 1471, we learn that a new delegation had arrived in Venice composed of Polish and Georgian envoys and the envoys of Uzun Hassan" (Tardy, 1980, p. 22). We know from Italian sources that there were four envoys: Azimamet, Morat, Nikolo and Kefarsa, serious and authoritative persons (Mamistvalishvili, 1981, p. 21). The envoy of Venice, Caterino Zeno easily managed to convince the Iranian ruler to take the White Sheep Turkomen's weapon against the Ottomans. The ensuing military campaign did not bring the desired result to the allies, as the Persians were forced to repel a large army at the Euphrates River. The tension in the relations with the Ottomans resulted in ending of Zeno back to Europe at that time as an envoy of the

Persian monarch with the hope of getting assistance from Hungary and Poland. It is true that Zeno's mission was unsuccessful both in Eastern and Western Europe, since neither Poland nor Hungary were ready to fight against Turkey at the time.

During the Ottoman-Venetian War (1463-1479), the Sultan knew about the contacts between Poland and Uzun Hassan. Negotiations were held between Uzun Hassan and Casimir Jagiellon prior to the defeat of Uzun Hassan by Mehmed II in 1473, and the creation of an anti-Ottoman coalition, as well as support for a Polish-Czech-Hungarian Union were considered along with giving control of the entire Black Sea coast, Greece, and Constantinople to Poland (Kveliashvili, 2005, p. 52). The Georgians had a political as well as a familial relationship with Uzun Hassan. It is known that the spouse of Uzun Hassan, Theodora or Katharina, was the daughter of the Emperor of Trebizond, whose mother was Georgian.

Goods imported from the eastern kingdoms via the Black Sea crossed Moldova, arriving in Lvov, which belonged to the Polish-Lithuanian state, and then, via Poland, they were sent to Eastern European countries. Since 1387, Moldova had formally been a feudal possession of the Kingdom of Poland; however, Hungary also laid claim to it. Moldova maintained its independence as much as possible, using this rivalry to its advantage (In September of the same year Stephen III became a vassal of the King of Poland). In 1475, the Sultan of the Ottoman Empire conquered Kaffa, which was followed by the seizure of Taman, Kerch, Azov, Anapa, Kuban, Kopa, Balaklava, and Sudak. In 1475, the Crimean Khan Mengli Giray mentioned in a letter sent to Mehmed Giray that he would be an enemy to any enemy of the Sultan, and a friend to his friend. A difficult period began for foreigners residing in Kaffa. Valachians, Polish, Russians, Georgians, and Circassians were the first to learn their fate: they were to be deprived of their property and sold as slaves or imprisoned (Gade, n.d., pg. 180).

The anti-Ottoman union was established in Eastern Europe in the 1480s, composed of the Grand Duchy of Moscow, Hungary and Moldova. The Crimean Khan resumed attacks on the southern territories of the Polish-Lithuanian state. Simultaneously, Ottoman operations were underway in the northern Black Sea region, resulting in the loss of the Black Sea ports

of Kiliya and Ackerman, located on the territory of the Principality of Moldova in 1484, which was a major blow for Poland. Navigation on the Black Sea stopped. Poland was prohibited from interfering in the affairs of the Black Sea region and the Crimean Tatars were instructed to attack the southern possessions of the Polish-Lithuanian state.

Ten years later the Turks attacked the capital of Moldova – Suceava, and afterward the ruler of the city, Stephen the Great, pledged an oath of loyalty to be placed under the permanent protection of the King of Poland, Casimir and his descendants (Malgozhata, 1995, p. 76). However, a year later, when the King of Poland appeared in Moldova with the intent to crown his brother Sigmund, Stephen III declared himself a vassal of the Turks.

After the (maritime) routes were transferred to the Turkish control, Kaffa was connected by sea (and later by land routes) to Poland to Germany. During all this time the slave trade was thriving. There is evidence of merchants trying to obtain permission from the Pope to take captives out of Kaffa in 1465 through "St. George's Bank". At the same time the Genoese obtained a similar permission from the German Emperor for taking captives out of the Black Sea region (Heyd, 1923, pg. 61; Beradze, 1980, pg 122). Captives were taken out of Georgia to Genoa via Lvov. This route gained particular significance after the Sultan of the Ottoman Empire, Mehmed II, occupied Karaman Beylerbeylik which connected the Mediterranean Sea coast and Iran (1468) (Inalcik, 1973, p. 28). It is known that the lines of communication between Venice and the Persian governor Uzun Hassan was via German cities, Poland, Kaffa and Georgia. This is the route that was taken by the envoy Caterino Zeno, and he returned to his country by the same route in 1470s. From the writings of the Polish Chancellor, Italian philosopher and historian, Filippo Buonaccorsi we learn that when he arrived in Poland, Zeno travelled to Kaffa accompanied by an army of guards of the King of Poland, boarded a vessel there and headed to Sebastopol (Sukhumi). Calimah, the chancellor of Jan Olbracht, the King of Poland, described the journey of Zeno. According to him, the kings of Poland and Georgia ensured safe passage for Zeno to the court of the Shah of Persia. Zeno moved from the following state to Europe via, accompanied by the envoys of Hungary and Poland. Upon reaching Poland in 1474, he met the envoy of Venice,

Paolo Ognibene, who was travelling to Georgia and Persia. Zeno gave the letters addressed to Uzun Hassan, Qvarqvare Atabeg and the Prince of Megrelia to Ognibene describing the results of his negotiations with the King of Poland (Tardy, 1980, pp. 23-25).

The second envoy, Ambrogio Contarini, arrived in Persia using the same route in 1474 but encountered obstacles on his way back in 1475 (Georgia-Black Sea-Danube route) (Tsintsadze, 1966, p. 28). After it was learned that the Turks had seized Kaffa, some of the envoys, who were in Poti, a coastal city on the Black Sea in Western Georgia, decided to return through Shemakha-Baku-Derbent, by way of Astrakhan and Volga and Moscow, while still others – via Circassia. As was mentioned above, the envoys of the King of Kakheti, George VIII, also arrived in Venice in 1474 and then travelled to Rome and Naples. However, attempts by the Georgian envoys to establish contacts with European countries were futile (Tardy, 1980, pp. 25-26).

During that period Poland had to play a double game. The decision made at the Petrkovski Seimin April of 1477 was not followed by military operations against Porte, despite the fact that attacks on its southern borders continued. In the 1480s the Holy Roman Empire, Venice and the Pope, Innocent VIII (1484-1492) launched an initiative to create a coalition. The King of Poland, Casimir Jagiellon, decided to join the anti-Ottoman coalition. In 1485, he tried to regain Kiliya and Ackerman and negotiated with the rulers of the Volga Horde (sons of Ahmed Khan) to oppose the Crimea. Despite the fact that this initiative appeared to be successful and both the Poles and the Lithuanians achieved victory, Poland chose to have peaceful relations with the Ottoman Empire. Negotiations with the Ottoman Empire were held through the mediation of Venice. Despite the fluid situation marked by attacks of the Crimean Tatars on the southern territories of Poland in 1487 and counter-attacks by the Poles against Crimea, negotiations continued and peace was concluded between the two countries on March 23, 1489 (Kveliashvili, 2005, pp. 59-67). It is easy to discern the consequences of this decision from the events that followed. At the same time, the general situation remained unchanged: attacks of the Crimean Tatars continued, including on Kiev and Ljubljana, and the Jagiellons maintained their claims in Central, Eastern and South-Eastern Europe, as well as their desire to

participate in an anti-Ottoman coalition. Navigation in the Black Sea was also on the agenda.

Despite the closure of access to the Black Sea, a route connecting Europe and Asia through Georgia was actively used: this was from the Black Sea coast of Georgia to the Dnieper Estuary, then to Kiev and on to West European states via Lithuanian-Polish territory. This route was used by Georgian envoys going to Lithuania in the late 15<sup>th</sup> century, on their way to deliver a special message to the Queen of Spain.

The anti-Ottoman union was formed between Georgia and Egypt by sending Nilo, the spiritual adviser of Constantine II, to the Mamluk Sultan of Egypt, with a special mission in 1493-94. On his way home, while in Jerusalem, Nilo learned from Spanish envoys about the termination of the Reconquista in Spain and invited them to Georgia where they arrived in autumn of 1494 (Tsintsadze, 1966, p. 17). The King of Kartli sent a letter dated March 10, 1495 with Nilo, the envoy Zakaria and these Spanish envoys (Tsintsadze, 1966, p. 16). This letter has drawn the attention of researchers a number of times (Ninidze, 2003, p.386). It was discovered in Poland and logically led I. Tsintsadze to assume that the Georgian and Spanish envoys arrived in Spain via the Lithuanian-Polish state (Tsintsadze, 1966, pp. 31-34). This opinion is shared by other researchers as well. The historical record a number of times emphasizes the significance of the letter, as evident by its inclusion in the parish register of Lithuania, which happened only in rare cases. Under the conditions of on-going anti-Ottoman preparations, the Georgian envoys travelling to Spain arrived to Vilno. Constantine II was trying to get in touch with the Poles (whose disposition was in accordance with the plans of the Georgian King) through his envoys (Ninidze, 2003, pp. 82-83).

According to Bohdan Baranowski, it is possible that the representative of the King of Kartli was taking a letter to the King of Poland (Tabutsadze, 1991, pg. 148). This assumption is totally –justified considering the precedent of 1471.

The Georgian envoys brought to Europe an action plan regarding a two-front assault on the Turks: by the Spanish fleet (in the Mediterranean), and by the much safer land route passing through the Lithuanian-Polish

state, which would be carried out by the King Constantine and the Sultan of Egypt.

During the 16<sup>th</sup>-17<sup>th</sup> centuries, Europe tried hard to find a way to connect to oriental markets. However, these attempts were hindered by the resurgent Ottoman Empire. Particular attention was paid to Persia and the export of silk from there (Zevakin & Polievktov, 1933, p. 1). For this purpose, safe routes were constantly sought. Attempts to put together anti-Ottoman coalitions continued throughout the 16<sup>th</sup> century and Europeans relied on the assistance of the Persians and Georgians. As soon as the Battle of Chaldiran (1514) ended, Shah Ismail sent envoys to the Sultan of Egypt to create an anti-Ottoman coalition together with the Georgian and Hungarian Kings.

In the late 15<sup>th</sup> century, Cossacks had been attacking from the Black Sea and the Sea of Azov. One letter written in Hungarian in 1555 states: "The Great Duke of Moscow and the Cossack leaders, who are neighbors and relatives of each other, commanded their troops against the Tatars. The Megrelians, bordering the Russians and the Cossacks, became involved in the campaign earlier. Their number reached more than 200,000. Their commanders are Megrelians and Circassians who are sure of the seizure of Turkey ... When they defeat the Tatars there, they can go to Moldova and then to Turkey via the Danube" (Tardy, 1980, p. 63). The 16<sup>th</sup> century Ottoman author, Mustafa Ali, in his world history – "The essence of events" -begins the story of the Ottoman campaign to Astrakhan in 1569 and the attempt to build the Volga-Don channel by relating the Ottoman campaign to western Georgia and the expulsion of the Qizilbash from there, followed by their first campaign to the north (Ali Mustafa Ben Ahmet, n.d., pg. 565). This means that despite the Peace of Amasya signed between Persia and the Ottoman Empire in 1555, according to which western Georgia fell under the control of the Ottoman Empire, western Georgia was also in contact with Persia. This situation was repeated later as well, for example in the 1630-1640's. The European missionary has no doubts that "Levan II Dadiani wanted to be a friend of Persia more than of the Ottoman Empire" (Tamarashvili, 1902, p. 162).

The Jagiellon Dynasty ceased to exist in 1572. Other rulers came to govern Poland, but relations with Georgia continued in various forms. There is information that in the 1580's the King of Poland, Stephen

Báthory, intended to take advantage of the difficult situation in Russia, seize Moscow, give a hand to the Georgians, Circassians, and Persians and place the Turks in an iron siege. The source of this information is Gregoryde Volan, whose information is derived from P. Pierling. Representatives of the Polish King conducted negotiations on the formation of an anti-Ottoman coalition in Venice, Vienna, Spain and Persia (Tsintsadze, 1966, pp. 39-41), which actively continued until the death of Stephen Báthory in 1586. Information on these attempts was provided to Alexander II, the King of Kakhs as well (Tsintsadze, 1966, p. 40). In 1578, Simon I, released from captivity in Persia, started fighting against the Ottomans, and was soon joined by the Atabeg of Samtskhe, Manuchar, and the Kakhetian King, Alexander II. Sashamkhlo, Sharvan, Dagestan and Georgia joined the anti-Ottoman coalition. The Treaty of Istanbul (1590) was followed by one more attempt to create an anti-Ottoman coalition and this attempt was undertaken by the Pope of Rome, Clement VIII (1592-1605) and the German Emperor, Rudolf II (1576-1608).

In one of the documents published by Gulbenkian covering the events of the early 17<sup>th</sup> century, a secret envoy of the Polish King is mentioned who was sent to the Shah to form an alliance against Turkey (Tabghua, 1987, pp. 127). The letter delivered by the envoy of the Polish King to the Shah addressed the joint actions of Poland and Persia against Turkey (Tabutsadze, 1991, p. 148).

Cossack assaults started in the 1580's. European travelers provide us with information about them. According to Pietro Della Valle (1627), the dukes of Guria and Megrelia established relations with the Cossacks. "They protected their freedom to such an extent that they accept with love the Polish Cossacks who live on the Dnieper Estuary on the Black Sea as Christians in their countries, though they are great enemies of the Turks and caused them great damage then and as well as now" (Material for the history of Georgia, 1899, p. 57). He has saved information on the attempts of the Cossacks to establish a military alliance with Persia with their help via Imereti, which was unsuccessful because the Turks took the most of the envoys captive. "As it is said, the King of Poland maintains a friendship and correspondence with these Dukes. Ships often move from one country to another, which may be rather significant for

Georgians, as Cossacks are the owners of the Black Sea and are much stronger currently; the King of Polsha can help the Georgians in hardship caused them by the Persians or the Turks by the same route, which is too short. On the other hand, Georgians can largely help the Cossacks in their affairs with their ports and safe havens which they have on their shore. Thus Georgians will be helpful for our people too, if we take any great initiative anytime, by sea or by land, against the Ottoman Empire, particularly Constantinople" (Material for the history of Georgia, 1988, p. 57; Beradze, 1989, pp. 129-131).

Jacques François Gamba, who travelled to the South Caucasus in 1820-1830s mentions that the Zaporozhian Cossacks did not let their neighbors – the Russians, Poles, Moldovians, Tatars and Turks – rest for a long time, they were not under the patronage of either of these states, and they put fear into the Ottomans, and because of that "the first paragraph of all agreements concluded between the Ottoman Empire and the Poles provided for a prohibition of navigation on Boristen (Dnieper) and Pontus Euxinus (Black Sea) for Cossacks" (Gamba, 1982, pg.66). Attempts of the Polesto subdue the restiveness of the Cossacks in the 1630s, since it complicated their relations with Ottomans, were unsuccessful (Tymovskij, 2004, pp. 223-226).

Around 1623, the Sacred Congregation De Propaganda Fide sent 4 novitiates of the Dominican Order to the East and among them were Giovanni Guliano Da Luca who left records from which we learn about the Cossack raids against the Ottomans and Tatars. The Cossacks moved by the Danube and the Dnieper on boats and upon returning to Georgia with plunder, they prayed in the church and left money there. Despite the fact that the Cossacks did not have ideal relations with the Georgians and often posed a threat to the Georgian population, and since Western Georgia was formally under the control of the Ottoman Empire according to the Persian-Ottoman Peace Treaty, as well as the treaty concluded between the Prince of Odishiand the Ottoman Empire, and the Prince of Guria and the Ottoman Empire, according to which the Georgians were obliged to hand over the Cossacks from their territory to the Ottoman Empire, they did so only in some cases. There is a legend that the Prince of Odishi, Levan II, paid a ransom to the Cossacks and they helped him to fight against the Turkish fleet (Beradze, 1989, p. 131).

Trade routes led from the Caspian Sea West Coast and Iran to Tbilisi, then to Akhaltsikhe or Kutaisi. From 1612, when the border between Turkey and Persia was closed, the need for finding a safe trade route was put on the agenda again. In 1621, the Dominican leader Paolo Maria Cittadini da Faenza, who was in Georgia in 1616, informs us that two routes (the subsequent quotation describes three routes) led to Georgia from Persia. "The second road leads to Persia, Gilan, from Gilan to Shirvan, from Shirvan to Shemakh, from Shemakh to Demirkap. There is a peaceful route from here to Georgia; the third – from Tabriz to Yerevan, then to Tbilisi via Ganja, from Tbilisi to Zagem; *the fourth from Poland to Kiev, from Kiev to the Black sea, from there you enter Megrelia or Guria by Cossack vessel by the Black Sea*" (Tamarshvili, 1902, p. 84; Tabaghua, 1986, p. 60).

In about the same period, in 1627, in the report submitted to the head of the Catholic Church, Pietro Della Valle addresses the issue of trade routes and mentions that "our people can come to Georgia by three routes. One route, the shorter one, is via Constantinople ... the second route is via Persia, where there are missionaries, Barefoot Carmelites and Augustines who have churches in Persia. *The third and the final route is the route of Polsha (Poland). From the places of this State, which are at the Black Sea coast, it is possible to go to Georgia easily and quickly. It is possible to easily reach this sea from the center of Polsha by the river Dnieper, which flows along Kiev... there are enough monks from Polsha to do this ... the King of Polsha will also provide assistance; he will zealously try to facilitate this movement. There will be many Cossack vessels for this, by which our people will be able to arrive to Georgia ...Polsha Ruten Catholics can provide assistance, who have the Greek church rules yet and will have a great influence among Georgians because of that*"(Report of the traveller, n.d., p. 63; Tabaghua, 1986, p. 210). The same author advises the Theatinian missionary – Don Giuseppe Judici: "You, Holy Fathers, are obliged to use all efforts to persuade the King (Teimuraz – I.T.) to open the route and establish trade relations from the Georgian ports of the Black Sea with Poland which also has ports on the Black Sea coast, including at the Dnieper Estuary, on the embankments of which the Cossacks, vassals of the Polish King, live" (Tabaghua, 1987, 125; Tabutsadze, 1991, p. 150); "At the same time, in his opinion, it would be better if wide trade relations were established between Poland and

*Georgia and a strong alliance was formed between these two countries this way. In this case, there would be no need in Cossacks”* (Tabaghua, 1987, 126). During those years, it was thought that the Turkish threat was eliminated and it was possible to transport Persian silk via Georgia, through the Black Sea and Poland. However, as already mentioned, the fact that the shortest route between Warsaw and Persia passed through Georgia had been known earlier.

In 1630s the Holsteinians became interested in trade with the Persians, who planned to export Persian silk to Europe via Moscow. They sent their envoys to each other. Though these measures did not bring actual results, they caused discontent of the other European merchants who were also trading in Russia and Persia. Because they also wanted access to Persia and Shenberg, the envoy of the Polish King, was among them. *The Swedish and Polish Kings sent letters missive to the Holsteinian Duke (Herzog), proposing that he move towards Persia via the Black Sea and Georgia.* Friedrich rejected this proposal (Zavakin & Polievktov, 1993, p. 7). But the Prince of Odishi, Levan II Dadiani (1611-1657) was particularly active in trying to carry out this trade project in the first half of the 17<sup>th</sup> century (Atelava, 1990). For that reason, he became a relative of Khosro-Mirza, or Rostom Bagrationi, who was the grandson of the Kartlian King Luarsab, and was appointed as the Wali (viceroy) of Kartli by the Persian Shah. He invited European merchants to export Iranian silk and these merchants established a colony there. In this business he was supported by Nikoloz (Nikifor) Irubakidze-Cholokashvili, the envoy of the King Teimuraz to Europe, and upon his advice a mission was established in Odishi. Levan II developed trade with the European countries together with him. The route would pass through Georgia, including Odishi. Giuseppe Judice informs us, that "Prince Dadiani always wanted to bring merchants and settle them in his principality. He wanted to attract merchants and merchandise from distant states very much ..." "If it would be possible to bring some rich Venetian merchants from Constantinople, he would oblige them to sell silk apart from other goods, entirely from his principality and partially from Persia ... If somebody would start trade with silk by the Black Sea, the merchants would deliver silk for them from Persia and Armenia to Odishi more than a half price cheaper than it would cost to take to Halab. The Georgian envoy Nikifor, who was sent to Pope Urban VIII, among other things,

asks His Excellency “to grant the Father Nikifor a common passport and mediate for him before the Emperor and the Polish King, through the countries of whom he will pass when returning to Iberia” (Tamarashvili, 1995, p 559). Thus, as always, the visit of envoys to Rome and Poland was considered. It appears his request was granted. Propaganda gave a recommendation letter to Nikiphor Irbakh ... Owing to recommendations of the Pope and Propaganda, nuncios of Vienna and Warsaw accepted him with great attention and welcome, arranged his meetings with Kings, with whom they were accredited (Tamarashvili, 1995, p. 562). Jean Chardin provides information on Nikiphor. According to him, he had been in Jerusalem several times, travelled around Europe, had been in France, England, Spain, Poland and Italy (Chardin, 1975, p. 141). An opinion predominated that dominates the Georgian historiography is that this mission was intended to create an anti-Iranian coalition. Based on the documentary material discovered by Zh. Vateishvili and I. Tabaghua in the General Archive of Simancas, near the city of Valladolid, Spain (Vateishvili, 1983; Tabaghua, 1986, pp. 141-191). M. Svanidze (1990) substantiates the opinion that this mission intended to create an anti-Ottoman coalition (pp. 197-217).

Relations with Europe were considered to be rather significant, as Europe, in the opinion of many Georgians, would protect Georgia from Persia as well. According to Feiner: “That was the period when the anti-Ottoman coalition was being formed in Europe and some Asian states and Georgians took vigorous participation in it”. The European troops were divided into three groups: 1. Germany, Poland, Hungary; 2. Italy and Spain; 3. France. Iran, for its part, sent five or six missions to the Pope and the Spanish and French Kings, and notified them of the decision to attack the Ottoman Empire and promised them to return Palestine and especially, Jerusalem (Avitabile & Giorgadze, 1977, pp. 4-5). M. Svanidze considers that Teimuraz relied on the assistance of the Poles and Cossacks in this undertaking. The confrontation, which began in the Crimea during the period when the Ottoman Empire was intending to overthrow Mehmed II Khan and place Janibeg Giray on the throne, was supported by Poland and Iran. With the support of the Zaporozhian Cossacks, Mehmed defeated the Ottomans and his brother, Shahin Giray, started creating an anti-Ottoman coalition, which would include some Caucasian countries, in addition to Poland and Iran. For this purpose,

envoys of the Polish Hetman to the Crimea held negotiations with the envoys of the Georgian King who promised to provide a large number of soldiers. At the same time, the Georgian King maintained correspondence with an influential Polish magnate, Krzysztof Zbarsky (Svanidze, 1990, p. 209).

The King of Poland died in 1673. The successor king - John Sobieski started to pursue an anti-Turkish political course and became one of the active members of the anti-Turkish coalition. A similar attitude existed before him as well but John Sobieski chose his priorities according to political circumstances. As was expected relations with Georgia started to become active again. The dispatching of Rotmister of the Royal Court Bogdan Gurdziecki (Baron Buhtam-Beg according to T. Krusinski), who was born of Georgian nobility, as an ambassador to Persia had attracted attention. Despite the Polish government's preference not to assign foreigners as ambassadors (Zedginidze, 1965, pp. 166-173), Bogdan Gurdziecki's brother - Persidon (Parsadan) was also sent as an ambassador to Persia. Primarily, Bogdan was dispatched to Persia as the head of the Polish diplomatic mission by the King of Poland Jan Kazimierz (1648-1668) in 1668, who ordered the Georgian-Polish ambassador to offer Suleyman Shah an alliance against Turkey, as noted by Stanislav Zelensky in his work "Jesuits in Poland" (Zedginidze, 1965, p. 167). According to the royal chancellery instruction made on June 30, 1668 and presented in G. Zedginidze's article (1965), the ambassador had to travel through Georgia during both legs of the journey and had to "investigate and find ways for local traders to go to the Kingdom of Poland, for the purpose of exporting textiles and other goods....". This instruction was issued under the order of the king (p. 169). Presumably the ambassador had completed his task. He presented a letter from the Chancellor of Poland to King Vakhtang V "Shahnawaz".

On the way back the ambassador once more met with Vakhtang V (Shahnawaz) who responded to the letter of the King of Poland. The King of Kartli sent a message to the King of Poland describing the visit of Bogdan Gurdziecki to Georgia as a representative "of your majesty to restore peace and strengthen favorable and friendly ties with Sultan Suleyman" (here Shah Sultan is implied, 1666-1704). The Shah of Persia is presented in the letter as a "superior governor, the greatest, peerless,

the most powerful leader whom even the most threatening enemies worship, who gives the whole world greater wealth compared to wealth taken from the seas and who is to be worshipped more by humans than he actually is." I. Tsintsadze refers to John Kazimir as an addressee by mistake. By the time of writing his reply to Shahnawaz's letter, Michal Korybut Wisniowiecki (1669-1673) was the King of Poland. Bogdan Gurdziecki was the head of the Polish diplomatic mission in Persia later during the period of John Sobieski (1674-1696). According to Chardin and Jan Strase, Wali (viceroy) of Kartli Shahnawaz had a surgeon from Poland, named Adam, who had been sent to him by Bogdan and who lived in Tbilisi for a long time. According to the source, this surgeon married a Georgian woman who lived in Tbilisi. And it is also known that during the period in question many Europeans lived in Georgia (Chardin, 1975, p.74-75, 350, 352; Struys, 1935, pp. 254-255, 260-261). It is assumed by I. Tsintsadze that Vakhtang V's servant was also sent to serve the King of Poland, accompanying Bogdan Gurdziecki who had already been there. My assumption is that the Georgian King in this context refers to the same Bogdan by "servant", who had earlier served Vakhtang V. "Your Majesty, based on benevolent and friendly relations between us we kindly ask you to accept my kind servant as a desired guest to your Highness, as he was for his predecessor" (Tsintsadze, 1966, 352). Presumably, Joan Kazimir is meant by "predecessor," and as for the addressee of the letter, it is King Michal as it has already been noted above. According to Jean Chardin "the Governor had long been talking about his greatest wish to see Europeans settled in his country" in conversation with Padres. The Governor told Padres that "in case representatives of other countries wished to come to, he would grant them liberty and privileges. And for Europeans wishing to go to India, the way through Georgia would be the best alternative for them". Joan Sobieski's victory near Vienna in 1683 and his becoming a member of the anti-Turkish alliance in which 30,000 troops were involved received great admiration in Persia. This information is also supported by a letter sent by Bogdan from Schemacha in 1685.

Along with written sources, trade relations between Georgia and Europe, and particularly with Poland, are evidenced by coins discovered on the territory of Georgia.

Thus, the sources discussed above give us grounds to conclude that:

From ancient times Georgia represented the shortest way to link the Black and Caspian Seas and countries of the East and West;

Poland was one of the most important countries on this route, with which Georgia started to have relations from 1386 (i.e., after the Polish-Lithuanian Union);

From the mid-15<sup>th</sup> century Georgia as well as Poland became actively involved in efforts to establish anti-Ottoman coalitions;

One of the factors strengthening Georgian-Polish ties were the establishment of Catholic missions in western as well as eastern Georgia. Along with representatives of other countries, Polish missionaries were involved in Catholic missions that collected and distributed information on Georgia and the Georgians.

In the struggle between the Ottoman Empire and the Safavid Persia, European countries, as a rule, took sides against the Ottomans and considered Persia an ally from which various sorts of goods, mainly silk, was exported to the Western countries and which served as a connecting channel with India. Besides the commercial interests, this was also justified from a political perspective: the powerful Ottoman Empire was a permanent threat for Europe in the period when Persia was a comparatively weaker state and posed less of a threat to the West. This position was as strong and sustainable as Georgia's wish to have relations with Europe, for which in many cases Georgia had to compromise its direct interests. Even if in some cases Persia was more dangerous for Georgia, it joined anti-Ottoman coalitions to be closer to Europe.

Starting from the 16<sup>th</sup> century the West, as well as Persia, had been constantly in search of secure trade routes. Despite the fact that the territory of Georgia was frequently unattainable, it still functioned as a transit route; the Kings of Poland and Georgia were involved in these activities; the practice of exchanging heads of diplomatic missions between Poland and Georgia was very common and it served two main purposes: first, the creation of an anti-Ottoman coalition and second, the

export of silk from Persia to Europe, for which Georgia was considered the most secure way in most cases.

In particularly difficult times, the Cossacks were employed for this purpose. As a rule Cossacks were under the control of the King of Poland and followed his instructions. Due to developed relations between Poland and Georgia, these two countries were well informed about one another and their common interests led to the development of mutually supportive relations between the two countries.

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# **The Crimea Problem in Ukrainian-Russian Relations: Historical and Political Background**

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*This article researches historical origins and political framework of the Ukrainian-Russian dispute over territorial belonging of Crimea. Broad source base allowed authors to the conclusion that Ukraine has historical, political, legal and economic grounds to demand the return of the Crimean peninsula territory annexed by Russia.*

In March 2014 Russia annexed Ukrainian Crimea. Using the change of power in Ukraine, which resulted in the overthrow of the pro-Kremlin Yanukovich criminal regime, Moscow armed separatists and occupied the Crimea. All attempts made by the Ukrainian authorities and the international community to return the Crimea to international law did not yield results, as the main motive for the "return" of the Crimea to the Russian government was emphasizing the "unlawfulness" of the Crimean Oblast transfer from the RSFSR to the Ukrainian SSR in 1954 and therefore full right of return to the "lost" territory. In this regard, the question of clarifying the historical foundation of problems in Crimea and Ukrainian-Russian relations arises.

The Crimean peninsula has a long and varied history. Located to the south of the Azov-Black Sea steppes, being for millennia a nomadic territory, it was a natural niche of respite for many people. Some of them stayed for a long time on this peninsula, and for the Crimean Tatars this territory was site of the formation of their state. On the other hand, the region has been a subject to encroachment by many empires - ancient and modern. In ancient times Greeks and Romans inhabited it, during medieval - Genoese and Turks built their fortress there; in the modern era the Crimea became part of two empires - firstly the Russian Empire, then –the Soviet Union.

Since ethnic Ukrainians bordered the territory of Crimea, the historical fate of Ukraine and Crimea were interconnected for many centuries. Specifically, this close relationship began in the last third of the eighteenth century, when the Russian Empire, with the valuable support of Ukrainian Cossacks, after the victorious war with Turkey of 1768-1774 incorporated the Crimean Khanate. Under the Küçük Kaynarca peace treaty signed between Russia and Turkey in 1774, Russia took control of some parts of the Azov coast, the area between the Dnieper and Bug rivers, as well as the Kerch and Yeni-Kale fortresses in surrounding areas, that gave Russians the right of free navigation and exit in the Black Sea through the Straits into the Mediterranean. The Crimean Khanate had been under the patronage of the Ottoman Empire since 1475 and then became independent. However, the independence of the Crimean Khanate proved misleading, since it turned into a new dependency –under Russia. The official liquidation date of the Crimean

Tatar state was April 8, 1783, when the Russian Empress Catherine II signed the Manifesto of the incorporation of Crimea into Russia. The Crimean Khanate ceased to exist, despite protests from the indigenous population, which were suppressed by Russian regular army. The loss of independence led to the mass migration of the Crimean Tatars to the Ottoman Empire.

In 1802, Crimea was incorporated into the Taurida Governorate. In the early twentieth century the Taurida Governorate consisted of five Crimean districts (area of 25.6 thousand Square Kilometers with 740 thousand residents) and three counties in northern Taurica (an area of 35.1 thousand sq. kilometers with 1760 thousand residents). In the mainland province, most of the population was Ukrainian - on the Crimean peninsula - Russians and Crimean Tatars (Kulchytskyi, 2004).

In an effort to clearly define the boundaries of ethnographic Ukrainian lands on the eve of the negotiations between the Ukrainian Central Rada (UCR) delegation and the Provisional Government of Russia on the autonomous status of Ukraine as a part of the future federal Russia, UCR in 1917 initiated separation of the Taurida Governorate on the mainland and the island. During the proclamation of the Ukrainian National Republic (UNR) in November 1917, UNR stated a claim only on the mainland counties. Later, Dmytro Doroshenko, the Foreign Minister in the Ukrainian State government of Hetman Skoropadskyi, pointed out that the UCR abandoned the Crimean peninsula for nothing. Indeed, the leaders of UCR could have considered Taurida as a single economic organism as it existed for more than century. Within the whole province, Ukrainians were the majority, 60% of the population, as attested by the first all-Russian census in 1897 (Kulchytskyi, 2004). But at that time, UCR chairman M. Hrushevskyi, a historian, had his understanding that it was important to define boundaries of ethnic territory because, as the modern Ukrainian historian S. Kulchytsky said, "won ... not economic, but ethnographic approach" (Kulchytskyi, 2004).

However, after the government of Hetman Skoropadskyi came to power in Kyiv in April 1918, the fate of the Crimean peninsula and the question of it joining Ukraine became the subject of his attention. During the peace talks between the Ukrainian State and the RSFSR, which began in May 1918, the problem of Crimea was one of the most critical problems.

Its sharpness was intensified by a difficult political situation in the peninsula. In December 1917, representatives of city councils took power in Crimea. Public and political organizations established the Council of Representatives, of which the Kurultai proclaimed the Crimean Republican Bakhchysaray, which was recognized by UCR. But in January 1918, Bolsheviks seized power in Crimea and on March 21 created Soviet Socialist Republic of Taurida.

Displacing Bolshevik troops from the territory of Ukraine, UPR Colonel Corps P. Bolbochan went to the Crimea in late April 1918, but German troops that were in Ukraine on the invitation of UCR did not support this attack and ordered the Ukrainian unit to leave the Crimea. Supporters of the "one and indivisible Russia" took advantage of this situation and created the Crimea Regional Government headed by General Sulkevich who restored the validity of all the laws of the Russian Empire. Sulkevich said he wanted to start building a regional army and put forward claims on the part of the tsar's fleet.

Hetman Pavlo Skoropadskyi drew the attention of the German Government to the strategic importance of the Crimea to the Ukrainian State in his note dated May 10, 1918, directed to Ambassador von Mumm. He wrote:

Ukraine could not become a strong state without Crimea, especially for economic reasons. So unnaturally cut from the sea, Ukraine would have to necessarily increase its aspirations to capture this seacoast, and because of this, relations with the state, to which would be directed toward the possession of Crimea, will worsen. (Doroshenko, 2002)

However, the plans of the Germans didn't include creation of an East European young, economically strong state, so using a formal occasion in III Universal position (20 November 1917) it proclaimed the creation of the Ukrainian National Republic. Where a region was not included in Ukraine, they continued the course of supporting the puppet Sulkevich government (Universals of the Central Rada, n.d.).

This led the Ministry of Foreign Affairs of the Ukrainian State once again to explain the German side position of the government on the Crimean issues and in particular the provisions of the Universal III. In an official

note, directed by Foreign Minister Dmytro Doroshenko on May 30, 1918, it was stressed that:

...above all the Universal in general said only about main Ukrainian territory, meaning that those lands in which Ukrainian population has not an absolute majority will join later. This method of border installation, at first only in general terms, is explained by the fact that at that time the Ukrainian National Republic was seen only as part of a federation with Russia. Similarly, the Crimea, where he joined voluntarily to Ukraine, would also be a federal unit of Russia and so ... in this case Ukrainian State would not lose ties with Crimea, Ukraine economic outpost. Now, when Ukraine was finally on the road to full political independence, a link to the Crimea, as a federal unit may break completely. (Doroshenko, 2002)

To prevent this, the Ukrainian government proposed the accession of Crimea on autonomous basis, but the Sulkevich government supported by Germans did not want any dependence on Ukraine and continued to spin a flywheel anti-Ukrainian campaign. Commenting on the implementation of the principle of self-determination of peoples, the Skoropadskyi government was convinced that the population of the peninsula favored a union with Ukraine. Indeed, even Tartars, while the idea of their own state was very popular among them, did not object to the inclusion of Crimea in Ukraine. This idea was also supported by German colonists, Karaimes and many Russians.

General Sulkevich's government began to struggle with "Ukrainian propaganda" pursued in pro-Ukrainian newspapers and Ukrainian communities by prohibiting taking of government telegrams from Ukraine in Ukrainian language. Under these conditions, the Council of Ministers in mid-August 1918 adopted the draft of Foreign Minister Dmytro Doroshenko on an economic blockade of Crimea: rail and sea traffic and trade were suspended. Under the blockade a complete dependence of the peninsula from the continent was very clear: its economic life was totally paralyzed. This made the Crimean side really look at the things that were happening; additionally, food products supplies from Crimea to Germany were on the verge of collapse. On September 6, The Chief-of-Staff of the German troops in Ukraine, Lieutenant General Hrener addressed the Head of the Council of

Ministers of the Ukrainian State Fedir Lyzohub with telegram, which stated that "due to the fact that the situation of the business relationship between Ukraine and Crimea in recent weeks has been strained in political and in economic terms, that if in the near future there will be no changes a possible threat of further growth problems may occur, and it will be harmful to the interests of Ukraine and Crimea." (Hanza, 2004) Hrener offered to hold talks on this subject in Kyiv with the participation of all parties.

In mid-September 1918, the Crimean delegation arrived in Kyiv, but, as the course of the negotiations, it intended only to seek renewal of economic relations with Ukraine, not to solve the question of Crimea territorial ownership. The Ukrainian side refused to further participate in negotiations and suggested sending another Crimean delegation - representatives of the main ethnic groups. During the negotiations, it was able to produce a provisional condition for joining of the peninsula to Ukraine. This document noted that "Crimea is connected with Ukraine as an autonomous region." (Hanza, 2004) The competence of the Ukrainian government included foreign policy, leadership of the army and navy, a common financial system, operation of railways, post and telegraph. The region received its Regional Government, the national assembly, which developed local laws and a territorial army, administration and Secretary of State for the Council of Ministers on Crimean issues in Ukrainian State. It was planned that peninsula would have its own budget. These conditions were reviewed and approved by the Crimean Tatar Kurultai congresses and national public organizations of Crimea, but the uprising against Hetman Skoropadskyi in November-December 1918 made by the Directory marked the end of the intentions of the Crimea to be part of Ukraine.

At the same time, a fiasco happened and Ukraine lost the fight for the possession of the Black Sea Fleet (BSF) of the Russian Empire. The problem of control of the Black Sea Fleet, which as of April 1917 in total was composed of 177 warships and more than 220 vehicles for various purposes with the number of attached personnel reaching 30 thousand people, actualized after the October 1917 coup in Petrograd: claims to own it were expressed by the Bolshevik People's Commissars and the Ukrainian Central Rada.

We know that throughout its history the Black Sea Fleet was geographically connected with the fate of Ukrainians, who for centuries inhabited the Black Sea region. Provision of logistical and other needs of the Black Sea Fleet was carried out usually by Ukrainian regions. At the end of the First World War, the Black Sea Fleet personnel by 80% was staffed basically from Ukrainian lands. Naturally, this approach to staffing BSF facilitated ongoing regeneration on it by pro-Ukrainian sentiment that during National Democratic Revolution of 1917-1921 helped to implement the process of Ukrainianization of fleet as well as deployment Ukrainian naval construction.

UCR declared the desire to form a national navy by the creation of the General Secretariat of Maritime Affairs on December 22, 1917, which has made the approval of "Temporary Law on fleet Ukrainian People's Republic" on January 14, 1918. It was first formally described the concept of naval doctrine of UCR. Under this law, Ukraine has assumed all costs associated with the maintenance of the Black Sea fleet, which passed into the ownership of the UPR. However, the implementation of this law in real life was prevented by the first Ukrainian-Bolshevik war in the winter of 1917-1918 as well as BSF unresolved problems and the territorial affiliation of Crimea in the Brest-Lytovsk negotiations, and the fact that the UPR and Central Powers deprived the UCR of real influence on Black Sea Fleet.

The Bolshevik seizure of BSF plan was fairly simple: using revolutionary slogans as soon as possible to involve fleet into the maelstrom of civil war, which actually began in Russia. In order to strengthen his regime in Crimea, the Council of People's Commissars provided significantly to local Bolsheviks - 49 million rubles. At the direction of Petrograd, Sevastopol Bolsheviks launched an extensive campaign to discredit the Central Council, and after the overthrow of the Provisional Government qualified them "only as a bourgeois-nationalist counterrevolution." In December 1917 terror started in Sevastopol: pro-Bolshevik sailors committed a series of acts of mob justice, which resulted in 34 officers being shot.

In March 1918, with the approach of German troops allied to Ukraine closer to Crimea, Soviet Russia Council of People's Commissars in order to prevent conversion of the fleet under Ukrainian jurisdiction, said to

the BSF command that the fleet is "the property of the Soviet Republic and not a single ship can not go under the Ukrainian flag." Simultaneously, the Council of People's Commissars demanded immediate evacuation of the newest ships to Novorossiysk, the rest - subject to destruction. As a result of the confrontation between the Russian Council of People's Commissars and the UCR, the BSF underwent significant human and material losses. It destroyed a large part of its property; the fleet lost a huge number of the newest ships and cargo ships.

Not promptly resolved at the Brest-Lyтовsk negotiations, the Crimea Black Sea Fleet problem was the most serious obstacle for UCR implementation of naval policies. This prompted the Ukrainian government to make a desperate step: chieftain Pavlo Bolbochan was ordered to enter Sevastopol ahead of German allies. Sailors who were waiting with hope for Ukrainian troops coming raised Ukrainian national flags on the Black Sea Fleet on April 29, 1918; however, at the beginning of summer 1918 virtually all remnants of the Russian fleet in the Black Sea and Crimean Peninsula as a whole, were in German hands.

In late summer 1918, the Germans began leaning towards giving back the Black Sea Fleet and embankments to Ukraine. But at the same time they put forward the condition that Ukrainian fleet should be sailed under the Ukrainian flag in the Mediterranean Sea for armed demonstrations against the Entente. This requirement was strongly rejected by officials in Kyiv. Given the strong position of the Ukrainian State, the German government agreed to transfer vessels and infrastructures of Black Sea Fleet without such conditions. In mid-August 1918, on behalf of the Council of Ministers of the Ukrainian State, captain Svirsky went to Berlin, where together with German representatives, he helped produced a plan to transfer military and commercial ships that were in the hands of Germans to Ukraine. Forming the basis of the Ukrainian Black Sea Fleet were 35 new ships. Completion of the Ukrainian Black Sea Fleet was prevented by UPR Directory rebellion against Hetman Skoropadskyi and the defeat of Germany in World War I.

After the withdrawal of the German army from Ukraine, the French and the White Army landed in the Crimea. They formed White Guard Regional Government, which, however, did not last long, because in April

1919 the peninsula was taken again by Soviets. D. Ulyanov, Lenin's brother, headed the Government of the Crimean Soviet Republic. This republic lasted about two months. Using troopers from the sea, Crimea was captured by Whites in June 1919 who held out there until November 1920, when they were finally ousted by Soviet troops under the command of Frunze. This enabled the Bolsheviks to announce in October 18, 1921 the creation of the Crimean autonomous republic within the RSFSR.

Republic Taurida was announced in March 1918, and the Crimean Autonomous Republic, formed in 1921, had become an outpost for the penetration of Bolshevism in the East. This confirms the creation of a special Crimean office of the Comintern, which was tasked to intelligence gathering and creating conditions for the deployment of communist revolutions throughout the Black Sea basin.

The importance of Crimea as a communist outpost of the Kremlin is the fact that for nearly two years after the Civil War, the Bolshevik Moscow Center held a huge army on the Crimean peninsula, fearing another attack from Allied troops. In case if such an attack took place, then inevitable hostilities with the enemy had not lead by RSFSR, but the government seems to be an "independent" state - the Crimean Autonomous Republic. For this purpose a kind of "loophole" was made in the Crimean ASRR constitution. This could be interpreted as a autonomous republic, and as an independent entity, equal to other Soviet republics.

In RCP (B) the Government of USSR planned to provide assistance to Crimea. Telling is the fact that for nearly two years after the dissolution of the Southern Front in December 1920 M. Frunze held a position that was called "commander of Ukraine and Crimea." From the name of the position it was understood that Russia intends to keep Crimea.

Characteristically, the Bolsheviks of Ukraine, although they were subject to the Kremlin, also questioned the inclusion of the Crimean peninsula in the Ukrainian SSR. And it was a "headache" for RCP (B). On the one hand, during the Civil War Crimean close relations with Ukraine were very helpful for Moscow, as Ukraine has provided a variety of assistance for peninsula and quickly solved many issues. On the other hand, the central

government realized that it cannot continue similar contacts between Crimea and Ukraine. The leaders of Soviet Ukraine could "get used" to the idea that Crimea belongs to them.

There are several useful facts that the leaders of Soviet Ukraine were seriously concerned about regarding the idea of Crimea joining Ukraine. First of all, it is the attempt of the government of the Ukrainian Soviet People's Republic in early 1918 to create a South federation, which, together with Ukraine and other areas of the South, should include Crimea. In 1919 the chairman of People's Commissars of the Ukrainian SSR Rakovsky tried to establish control on Crimea. There have been attempts to put on the agenda of the forthcoming submission of Crimean Autonomous Republic to Ukraine in 1921, however, all attempts of the Soviet government of Ukraine failed because of the position of Soviet Russia leadership. It was dangerous for Moscow communist empire to give Ukraine the peninsula, that itself has not been properly subdued by them. The Ukrainian national movement remained strong, and was a real threat to the long-range plans of the Bolsheviks needs to restore the Empire.

Another significant cause of the Crimean autonomous republic within the RSFSR was that the indigenous people of Crimea - Tatars - sought to restore what was lost at the end of the eighteenth century, their own state. The Proclamation of the Crimean ASRR allowed the Bolsheviks to take control of the national liberation movement of the Crimean Tatars that during the Civil War got used to the idea of the possibility of the restoration of its statehood. In order for the Bolshevik dictatorship to clamp down on threatening Crimean Tatar national liberation ideas, they (like all other national Soviet republics) moved it into the framework of a controlled Bolshevik leadership process. The "Appeasement" of Crimean Tatars was in the same scenario as in the Ukrainian SSR.

The vital question was what was the character of Crimean autonomy created by the Bolsheviks - national or territorial? Lenin's Council of People's Commissars originally created autonomy of both types, but at the end there was only national. The Crimean ASRR was a unique autonomous entity, which continued to preserve its territorial nature. However, playing with Kemalist Turkey, the leading positions in this republic were given by the Kremlin to mostly people of Crimean Tatar

origin. There was a false impression that Crimean autonomy was, like all other nations. In this case, Crimean Tatars, though an indigenous ethnic group were not dominant in the population of the peninsula.

According to the All-Union census of 1939 the population of Crimea was: Russians - 49.6%, the Crimean Tatars - 19.4, Ukrainians - 13.7, Jews - 5.8, Germans - 4.6%. During the Second World War the total population decreased markedly, and its ethnic composition has significantly changed. In August 1941 the first deportations were made by the KGB on a national basis. They took Germans out from Crimea, about 50 thousand. They were settled there mainly during the times of Empress Catherine II. The wording of the charges was "aiding the Nazi invaders." Instead, the Nazis during the occupation killed 25 thousand Jews. Almost everyone who could not or did not want to evacuate was killed. Together with the Jews the Nazis killed the unique people of small nationalities - Krimchaks. The Nazis thought they were part of 'Jewish race' as they professed Judaism from ancient times.

According to the statutes of the State Committee of Defense of the USSR on May 11 and June 2, 1944 from the Crimea were deported Crimean Tatars, Bulgarians, Greeks and Armenians. Total number of deported to special settlements in Uzbekistan amounted to 228 thousand people. Russians and Ukrainians began to dominate in Crimean population. If previously there was an objective basis for territorial autonomy of Crimea, after the deportation in 1944, this disappeared. By order of the Presidium of the Supreme Council of the USSR on June 30, 1945 The Crimean ASSR was transformed into the Crimean region of the RSFSR, in which it was before transfer to Ukrainian SSR in 1954

The origins of the decision to transfer Crimean Oblast from the RSFSR to Ukrainian SSR also should be seen as tragic to the peninsula history as the 1944 mass deportation of the Crimean Tatars, Greeks, Armenians, Czechs, Bulgarians and Germans caused a deep crisis of the Crimean economy in general and agriculture in particular. Official statistics show that during the war the population in Crimea dropped in twice and in May 1944 it was 780 thousand people, and after deportation about 500 thousand left.

In summer 1944 there was already nobody to collect harvest in most of the Crimean villages. If in 1940 the sown area in the Crimea was 987.4 thousand hectares then in 1950 it had decreased by 100 thousand. (881.9 thousand hectares). In 1950 compared to 1940 Crimea's sale of grain had reduced almost five times, three times - tobacco, twice - vegetables. Going through a deep crisis and social affairs area: in late 1953 in all of Crimea there were only 34 bread stores, 18 - meat, 8 - milk, 2 - fabrics, 9 - shoes, 5 - building materials and 28 bookshops.

In this dire situation the leadership of Crimea not responded by any practical measures that the first secretary of the CPSU Central Committee Nikita Khrushchev did not like, during his secret visit to Crimea in autumn 1953, there was no mention in Crimean press about it. Only memories of the former editor of Izvestia newspaper Alexei Adzhubei, son of Nikita Khrushchev, who was accompanied by First Secretary of the CPSU Central Committee in an inspection trip to Crimea, show the reality of this fact.

Circumstances in Crimea during the fall of 1953, according to the memoirs of A. Adzhubeya, were so bad, that an outraged Khrushchev the same day immediately went to Kyiv, where he had a long conversation with the leadership of the Ukrainian SSR. Its main topic was the unpleasant impression of a trip to the peninsula. Using a powerful authority in the Government of the Ukrainian SSR, Khrushchev persuaded Ukrainians to help the revival of Crimean land.

At the end of 1953, by the initiative of Nikita Khrushchev the CPSU Central Committee launched a propaganda campaign in connection with the 300th anniversary of the so-called "reunification" of Ukraine and Russia at Pereyaslavs'ka Rada in 1654. Part of this campaign was the transfer of Crimean region to Ukraine.

According to scenario developed by the Kremlin, the first step was made by the Presidium of the Supreme Council of the RSFSR. Having agreement on principle of the Presidium of the Supreme Council of the Ukrainian SSR, it considered the transfer of Crimean region to Ukraine in the presence of the Crimean Regional Council and the Sevastopol city council. It made a positive decision in the favor of the following important factors: common economy, territorial proximity, close

economic and cultural relations between Crimea and Ukraine. A corresponding decree was sent to the Supreme Council. A few days later the issue was discussed at the Presidium of the Supreme Council. The act of transfer of Crimea was viewed as "a new vivid manifestation of boundless confidence and sincere love of Russian people, new evidence of immutable fraternal friendship between Russian and Ukrainian peoples." A resolution of request for the transfer of Crimean Oblast to Ukraine was also sent to the USSR Supreme Council.

On February 19, 1954, a solemn meeting of the Presidium of the Supreme Council of the USSR with the heads of the legislative and executive authorities of the RSFSR and the Ukrainian SSR, first deputy chairman of the executive committee of the Crimean Regional Council P. Lialin and heads of executive committees of Simferopol and Sevastopol city councils N. Katkov and S. Sosnitsky. First was the Chairman of the Presidium of the Supreme Council of the RSFSR M. Tarasov pointing out that Crimea is like a natural extension of the southern steppes of Ukraine, he concluded: "From the geographical and economic considerations the transfer of the Crimean region to the fraternal Ukrainian republic is expedient and in the interest of the Soviet state." February 19, 1954 the Presidium of the Supreme Soviet unanimously adopted a decree "On the transfer of the Crimean Oblast from the RSFSR to the Ukrainian SSR." His text literally repeated the arguments from the decision of the Presidium of the Supreme Council of the RSFSR.

The Kremlin did not lose anything from the transfer of Crimea, because the entire Ukraine had been part of the empire for 300 years. Indeed, no one could have predicted that someday Ukraine would separate from Russia with Crimea. Communist Party and Soviet leaders in dealing with Ukrainian-Russian territorial issues always took into account Russia's national interests. With all of Ukraine in submission, Ukrainian national interests did not bother them. From the above it follows that the Russian media concept of a "royal gift" of Khrushchev to Ukraine has no reasonable logic. Thinking that Khrushchev was an "agent of influence" of enslaved Ukraine in the Kremlin is simply ridiculous. Khrushchev defended imperial as well as Russian national interests as his predecessors Vladimir Lenin and Stalin. His national political decisions, including the

episode with Crimea, were driven by his interests in protecting the Soviet empire under changing circumstances.

It should not be forgotten that the final decision on the transfer of the Crimean Oblast from the RSFSR to the Ukrainian SSR was taken by the higher leadership of the party and Soviet government. Without the participation of the Stalinist old guard - G. Malenkov, V. Molotov, L. Kaganovich, K. Voroshilov, O. Bulganin - it would not have happened. So it's not a "gift from a drunk Khrushchev," as Russian chauvinists say now. Khrushchev's position in the party and the country at that time had not been so strong that he could arbitrarily decide the fate of a strategically important region like the Crimean peninsula. That is why the efforts of some Russian politicians and local Crimean separatists to put responsibility on Khrushchev are speculative. There is no document that confirmed the crucial role of Nikita Khrushchev in the transfer of Crimea in 1954, especially as an attempt to do some service for Ukraine. Moreover, in the documents of that time about this decision there is not even a mention of the 300th anniversary of Pereyaslav'ska Rada, which seems to be the reason this "gift" was dedicated. It was a tough economic necessity.

For over 200 years lands of North Black Sea, which were neither Ukrainian, nor Russian ethnic territory were part of the Russian Empire and the Soviet Union - public entities, the core of which was Russian people. So when in 1954 Crimea became part of the Ukrainian SSR, the decision of the Union Center did not cause any objections from Russian Republican leadership. The question of the legality of the transfer of Crimea to the Ukrainian SSR was not raised by Russia after the Declaration of State Sovereignty of Ukraine July 16, 1990 approved by the Verkhovna Rada of Ukraine. Moreover, the democratic forces of two parliaments of the republics in August 1990 laid the foundation for a new framework of relations between Ukraine and Russia. The result of the interaction of members of Ukrainian Parliament, united in faction "People's Council", and their partners from the block "Democratic Russia" in Russia's parliament, was the signing of the "Declaration of principles of interstate relations between Ukraine and the RSFSR," which was based on the Declaration of State Sovereignty of Ukraine and Russia.

This document confirmed the unconditional recognition of Ukraine and Russia as subjects of international law, "sovereign equality" of the two countries; principle of non-interference in the internal affairs of each other

and the rejection of the use of force in their relations; inviolability of existing frontiers between the two countries and the rejection of any territorial claims; ensure political, economic, ethnic and cultural rights of the peoples of the RSFSR living in Ukraine.

Declared principles have been incorporated into a formal agreement between Russia and Ukraine, signed by the heads of Parliaments Boris Yeltsin and Leonid Kravchuk in Kyiv on November 19, 1990. Special emphasis in this document is placed on the mutual recognition of the territorial integrity of both countries in their borders within the USSR. It is significant that both parliaments ratified the Treaty for a few days, although Moscow had already expressed doubts about the feasibility of its provisions in the part concerned the origin of Crimea as a part of Ukraine. After the proclamation of independence of Ukraine on August 24, 1991 other issues added to the Crimean problem, namely -the further fate of the Black Sea Fleet, terms of delivery of energy supplies from Russia and distribution of assets of the former Soviet Union, etc.

The collapse of the Soviet Union has led to the emergence on the political map of the world of 15 independent states, including the Russian Federation and Ukraine. Modern Russia, which covers the territory of 17.08 million square km and has much smaller size than its former Empire in 1903, the area of which amounted to 22.4 million square km, has sought to restore influence in the world in general and the former Soviet Union in particular. And one of the springboards to consider this is Ukrainian Crimea.

Therefore, the determination of the Kremlin leadership is not surprising. Using the objective weakness of official Kyiv after the events of the "Revolution of dignity", Russia realized his old plan for annexing Crimea.

Ukrainians should be confident that historical justice will be restored along with the territorial integrity of Ukraine. In order to receive this goal the Ukrainian authorities should persistently remind the international community about the problem of the Crimea and the need for appropriate punishment of the aggressor country, Russia.

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## **The China Crisis on the Pages of Georgian Newspapers**

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*The article shows how Georgian newspapers discussed the tense political-economical situation in China in 1914. From the article one can clearly see that Georgian newspapers report significantly on existing problems in China and clearly express their attitude towards the processes ongoing there. They do not like the quality of democracy in France and say that it is not high enough; they also did not justify relation of Russia with the regime of Yuan-Shi-Kai (Dictator of China). Authors believe that the big states of Europe fulfilled an important role in negation of constitution and establishing the dictatorial personality of president Yuan-Shi-kai.*

*Georgian newspapers cover the tense situation that has taken place in China and inform Georgian readers about this; in this way Georgian newspapers first of all fixate their clearly negative attitude towards Japan's, European countries' and Russia's intervention into China's domestic affairs.*

*In Georgian historiography reveals that the first stages of the First World War and the political orientation towards China in published materials in 1914 regarding the issue, are not yet fully studied and highlighted. Thus this article represents a small attempt at fulfilling the gap.*

In 1914, the penetrating eye of the Georgian press did not miss the tense situation in East Asia. Since April, the Georgian newspapers began intensively providing information about the situation existing in China.

This subject made it onto first pages of the following 5 newspapers issued in that period: *People's Paper*, *Thought*, *Batomi Newspaper*, *Our Nation*, and *Opinion*. As it became clear in the *People's Paper* (1914), the political and economic situation in China was extremely tense. (see issues:#1155, #1156, #1176). Newspapers started to publish extensive analytical articles in addition to short information, to give deeper understanding to Georgian readers regarding the ongoing processes in China.

The newspaper *People's Paper* published a series of articles with the heading "In Expectation of Revolution." The author of these articles was N. Abesadze. According to abovementioned articles, according to the author, the political situation in China was abnormal; the author also tried to explain the reasons for this to the readers. More precisely, the author thinks that, "President Yuan-Shi-Kai's dictatorial politics dig a grave for China's republic" (Abesadze, 1914, p.3) for which people have struggled and lost so much blood during the 1911 revolution. The President was not able to solve any of the agenda's problems. Instead of spending a 30 million loan received from Austria on the reorganization of the army and the destruction of criminal gangs, he spent the money on the destruction of the people's most faithful Guomindan's party "and in order to retain his dictatorship he is trampling the people's right" (Abesadze, 1914, p.3). The Parliament is in fact inactive, because, according to the author, if anyone dared to tell the truth "Yuan-Shi-Kai severely persecuted and forever resettled them from homeland" (Abesadze, 1914, p.3). For that reason the President has been requested to dissolve the inactive Parliament, which has been financially supported by people. The President has agreed to it, because based in the author's view "Yuan-Shi-Kai is really an enterprising European diplomat." He knew in advance that the meeting of the administration of the President would be his obedient slave and he himself would avoid any responsibility. Abesadze, who is very well aware of the problems existing in China considers that all existing problems are accompanied by extreme economic poverty. The treasury is empty actually and that

caused protests against the existing regime. Sun-Yat-Sen's command leaflets had been spread all over the country, calling for people to rebel. From the viewpoint of the author, this action resulted that organization "White Wolf" gradually taking political control. At the same time, the President had opposition in his own office. The President tried to destroy it, but that was practically impossible. Extremely strained by the political and economic situation, the Representative Committee was forced to determine: "that existence without the Parliament does not fit the Republic and it is impossible to postpone convocation of the Parliament." Thus the government recognized that the convocation of the Parliament was compulsory. Yuan-Shi-Kai also agreed to this, due to the fact that based on the electoral statute principals only his supporters could get into the Parliament and there was no place for ordinary people in Parliament. As per author's viewpoint: "This was Yuan-Shi-Kai's diplomatic trick to cheat people." Due to the chaos existing in the country the President has finally awoken "and he applied to the old, overgrown with moss, fighting rule – Repression, not able to predict how worried people will become". Repression was reflected on the one hand by maximally constraining the press and on the other hand by appointment of military supervisors in colleges to eliminate in children any inclination to revolution. This fact caused reinforcement of organization "White Wolf", the large part of the regular army moved to their side. The organization has additionally received USD 200,000 of loan and what's more and most important the Japanese have taken responsibility to train the army.

In *People's Paper* the author tried to report and to show, within the range of possibility, to Georgian readers the ongoing processes within the China, and concludes: "It is true that today Yuan-Shi-kai tries to fight over this movement, but it is too late. A big revolution is starting in China, which is caused by Yuan-Shi-Kai's politics and which, in this new age, has turned into grate liberation movement, the main aim of which has become to overthrow usurper and to declare the Republic" (Abesadze, 1914, 3).

The newspaper *Opinion* covers the same problems in its article "China's Trial". Based on the article, the President has established real autocratic regime and "confiscated Republic of China, to judge his bloody

dictatorship". During the overview of China's political situation the author concludes that China "may be said to exist only by name" and assumes that "the history will not digress from its own way, whatever happens; the victory of people is inevitable" (*Opinion*, 1914, p. 42).

The newspaper *Batomi Paper* published an extensive analytical letter with the heading "China at the Start of the Third Revolution". In the article the current political and economical processes are appraised from different points of view. The author analyses the international events and concludes that they could play a significant role in the formation of a dictator out of the President Yuan-Shi-Kai and overruling of the constitution has played an important role in the big European countries, namely Russia and France. The France has given a loan to China in the amount of 625 million dollars for burying the Republic and indeed with this money Yuan-Shi-Kai has undermined the republic. As reported by the author, despite the Sun-Yat-Sen's, a freedom fighter's leader, persistent request not to issue the loan to China, the request was left inattentively by the European Parliament. Based on the author's view, a respective loan that has been issued gave Europe the opportunity to see Yuan-Shi-Kai's true face. He "Absolutely did not justify a European country's trust and did not deserve the name of a wise and discerning politician and leader" (*Batomi Paper*, 1914, p.4). However, based on the author's assumption, in case Europe would have once more held a helping hand to him, he would manage to extinguish the third revolution and this will be his road to Emperor. Based on the abovementioned the author assumes that the only way to release China from dictatorship is that the world's society should stop provision of further help. "Further not to declare trust as to the untalented leader." (*Batomi Paper* 1914, p.4).

Georgian newspapers also predicted, according to a story from May 1914, the President would issue a new constitution, which awarded the president the rights as a dictator and practically led him to the announcement of his position as an Emperor. Respective predictions point to the high level of qualification of Georgian publicists.

This way, analysis of the above presented materials gives scholars the opportunity to conclude, that even before the beginning of the First World War (January-June), the tense political and economic situations existing on various corners of Earth in the year 1914 led the Georgian

press to the conclusion that the world would gradually become very much like a war camp.

Georgian press speaks directly to the problems existing in China and does not hide its position regarding the processes ongoing there. Precisely, they evaluate the quality of democracy of French government as very low and poor, they also dislike the Russia's relationship with China's dictator. They believe that the big European countries have played a crucial role in turning the President Yuan-Shi-Kai into dictator and disregarding the constitution.

Thus, Georgian publications, through reporting ongoing processes existing in far China and bringing the issue to the light with attention and discussion in Georgian society, outline their sharply negative position on any acts of aggression.

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## **Education**

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### **Linguistic Landscape of Georgia**

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*The purpose of our article is to discuss the general situation regarding the use and teaching of foreign languages in Georgia, especially German Language. Knowing several foreign languages is a prerequisite for academic and social mobility, which is one of the main goals of the Bologna process. This problem is particularly important for a small country like Georgia, whose language is not spoken outside of the country. Knowing several foreign languages is a necessary condition to ensure that our graduates acquire knowledge relevant to western standards and become competitive on the international labor market. This is impossible if graduates only know English. Therefore, more students should have the opportunity to study foreign languages including the German. If Georgian Universities consider this trend, then they will be on the right path towards a multilingual Europe.*

The policy of Georgian educational institutions is essentially focused on the ongoing educational system reforms, which should ensure the establishment of the Bologna process in a united European education space. This will give Georgia the opportunity to create the structural basis for paving the way towards becoming part of a European research area. For Georgia, it means the beginning of a new stage of reforms after the already conducted mass reforms (Grishaber, 2010:11).

We would like to review the linguistic situation in Georgia.

### *Overview of the Linguistic Situation*

#### *Georgian as the Language of Instruction*

De facto and de jure the official language in Georgia is Georgian. Thus, it is the language of instruction at schools and higher education institutions. The Georgian language belongs to the South-Caucasian language group and it has its own alphabet. For 4.5 million citizens (the majority of citizens of Georgia) the Georgian language is the native language. There are national minorities in Georgia, whose languages are recognized and protected by the state. Regions - Samtskhe Javakheti and Kvemo Kartli - are densely populated by the Armenians and the Azerbaijanis. The languages of communication in these regions are Armenian and Azeri, respectively. (There are a significant number of non-Georgians living in Tbilisi and there are a number of schools where they are taught in their native languages; there are also several bi-language schools.)

The educational system of Georgia is still the bearer of a difficult inheritance, which was characteristic of the transition period in post-Soviet countries. One of the important components of the ongoing educational reform is to improve the quality of teaching of the national language, especially in the non-Georgian language schools, where Georgian is not the language of instruction. In these schools the Georgian language is not properly represented. There are different reasons for this. In the Soviet educational system, Russian was language of international inter-ethnic understanding.

For this reason there was no interest in the study of the Georgian language among the non-Georgian population of Georgia. The result is that students are not able to use the national language even for daily communication. Such attitude towards the national language is due to negative feelings of some groups of people, in particular, the opinion that the knowledge of the Georgian language may lead to a violation of national interests of ethnic minorities. The second reason for the lack of knowledge of Georgian was due to similar methods of teaching Georgian in Georgian and non-Georgian language schools.

In our opinion, it is most important that people change their attitude towards the national language, so that they can feel and realize the value of it for their own interests and state interests. The Georgian government should introduce the Georgian language not only as a subject, but the medium of instruction (so-called "bilingual lesson" model) in non-Georgian language schools is very important. Accordingly, it is necessary to develop the innovative methods in primary and basic levels in order to study in Georgian language (optional) at secondary level (grades 10-12).

The number of languages learned by ethnic minorities is as follows: Azeri or Armenian + Georgian + English + Russian + German.

This means that the students are confronted with the task of learning four (very different) languages.

While formulating or developing the language policy, it is important to consider the multi linguality that exists in our country. It is important that the ethnic minorities recognize the Georgian language as the national language and learn it accordingly. Therefore, a question emerges if there is any place in the school curriculum for a third or subsequent foreign language.

### *Use of Languages in Media*

The language of almost all the media in Georgia is Georgian. The Georgian language is dominant in the print media as well as television and radio.

Official Radio – Television broadcasting of Georgia has 35 channels, 27 of which broadcast throughout Georgia. Two channels broadcast in the Russian language. One Georgian TV channel broadcasts English-language news once a day. The official public broadcasting broadcasts news in Ossetian, Armenian, Azeri, Abkhazian and Russian. These programs are broadcasted in ethnic minority regions.

There are no TV programs in other European languages in Georgian TV - Radio space. The Language Learning course on Georgian television is only for English language learners (with Georgian subtitles) and is broadcast every day for 20 minutes. In response to our question why there is not a similar program for German or other languages, the respective authority stated that the U.S. embassy helped them to obtain the appropriate license from the American University for a special television program. If the channel could obtain a license for other language courses, it would be able to broadcast in German or other European languages too.

Over the last period, 30 percent of TV movies are aired with Georgian subtitles without synchronism. The demand of the government to show 30 percent of European films without translation with Georgian subtitles on television, can be explained by the spread of European languages. English-language movies are shown mostly. In this way they want the population to learn the English language. In spite of the fact that the Russian language for older generation is the Linguafranca, Russian language movies without synchronism are not allowed on Georgian channels. We think that this approach is politically motivated.

30 percent of movies at movie theaters are in English with Georgian subtitles. People can receive foreign programming via cable television. Unfortunately, there is no statistical data about the most widespread languages. Radio News in European languages are broadcasted by four radio stations. On one channel it is possible to catch Deutsche Welle for two hours, the rest of the time is devoted to the French language. There is also a channel where broadcasts are partially in English and another channel where the broadcast is entirely in English.

### *The Use of Languages in Different Institutions*

For all public organizations the official language is Georgian. But along with the national language the English language is being introduced, which has just replaced the Russian language. The Russian language is no longer used in important economic, political and cultural institutions. The working language is English for all international organizations accredited in Georgia. English is dominant in all areas of the economy, because after the 2008 war, Georgia did not have any economic relations with Russia. English is the only language of communication for foreign missions in the last ten years. In Georgia, there are almost no companies in which knowledge of German language is required for daily activities. Governmental organizations and German firms in Georgia require knowledge of English and often Russian as well.

The same applies to the tourism industry, which is an intensive sector for foreign languages. English is dominant here as well. The German language is less important, despite the fact that the majority of tourists in Georgia are Germans.

The official language of banks is Georgian. Some banks maintain correspondence in English, including Deutsche Bank (Pro Credit Bank). Kazakhstan's Halyk Bank conducts correspondence in Georgian, in addition to the Russian language.

### *Foreign Languages at Schools and Institutions of Higher Education*

#### *Foreign Languages at Schools*

There are 2366 secondary schools in Georgia, out of which 2089 are public and 277 are private.

At all public secondary schools at least two foreign languages are taught; in most of private schools - three. English is the first compulsory foreign language and is taught from the first or the second grade to the end of school. The second foreign language is taught from the 7th grade for at least three years. The third foreign language is taught from the 10th grade to the end of school.

*Number of Foreign Language Learners in Georgia (Kutelia & Abralava, 2012)*

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<b>Languages</b>	<b>Number of students Georgian total</b>	<b>Number of students Region Samtskhe Javakheti</b>	<b>Number of students Region Kvemo Kartli</b>	<b>Number of students Region Ajara</b>
English	470058	21372	55933	15409
Russian	255658	12743	12743	8425
German	59634	5142	30195	1308
French	13011	581	1092	721

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As per the below chart, English language has replaced Russian and was established as the major foreign language in Georgia.

The situation was different in 2009. As per the data of 2009 (Abralava, 2010), Russian was number 1 foreign language in Georgia.

English was the second foreign language, and German was the third most popular language.

*Number of Foreign Language Learners in Georgia 2009 (Abralava, 2010).*

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<b>Languages</b>	<b>Number of students</b>	
	<b>Regular studies</b>	<b>Specialized studies</b>
Russian	414434	16406
English	232402	75098
German	110996	11099
French	30588	4574
Spanish	172	0
Italian	165	0

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German is often taught as the third foreign language after English and Russian. In accordance with the requirements of the Ministry of Education, students are required to achieve level B1 + in their first foreign language, level B1 in their second foreign language, and level A2 in their third language. At schools where the German is taught intensely (from the second grade, 5 hours per week) the level to be achieved is B2/C1. Even at these types of schools, English is taught from the first grade, which, in our opinion, causes students' linguistic overload and decreases their ability to learn. Since 2010, the German International School has existed in Georgia. After graduation, students receive a certificate in Georgian as well as German. According to our statistical survey, the first foreign language in public schools is English, the second – Russian, and the third - German.

## *2.2 Foreign Languages at Institutions of Higher Education*

There are 60 universities throughout Georgia, out of which 39 are private and 21 are public. (Abzalava, 2012). Georgia joined the Bologna Process in 2005 and has conducted higher education reform accordingly.

At all institutions of higher education it is necessary to learn at least one foreign language. At most of these institutions the compulsory foreign language is English, which is taught for 3-4 semesters. At some high schools, the second foreign language is taught as an optional subject. Many students choose the German language, the motivation for which is probably due to the political and economic importance of Germany to Georgia. In addition, while learning German, some students develop a desire to get education in Germany and better professional chances plays an important role too. At some institutions of higher education the Germanic philology is taught as a basic specialty. These universities have close partnerships with German universities. Various exchange programs, including DAAD-funded, make studying attractive among language learners.

## *3. Future Prospects of Improving the Quality of Foreign Language Teachers*

How can we improve the teaching of foreign language? – By training teachers and the developing effective training programs for teachers. Programs for teachers require conceptual and institutional critical review and modification. It is necessary to rely on existing theoretical research in the field of didactics of foreign languages and their use in teaching practice. The fact that some combined training courses, such as journalism/pedagogy, General Philology/Pedagogy, Translator – Interpreter/Pedagogy proposed by experts is of greater demand on the market, unfortunately, have not been provided. For many students intensive training in foreign languages, which would be connected with didactic subjects or cultural science, journalism, will be precondition to choose such course. Students could achieve high levels of competence through curriculum and modules compiled interdisciplinary. As the modules we could offer two modern foreign languages (German, English), media science, cultural science, didactics, etc. While introducing such courses it is necessary to test their advantages and disadvantages.

For this purpose, it is possible to conduct a survey of students, which takes into account self-assessment of their competencies (especially "interdisciplinary thinking" and "specific field competence for the field"). If the students see the perspective of employment in mastering foreign language, they will choose this course. Special attention should be paid to the students' practical language education. The curriculum should be oriented towards school as well as language practice. Double the time should be given to school practice, as well as the preparation/ accompanying seminars, at which the theoretical didactic knowledge will be connected with the practical training skills. In this respect, it is necessary to start active communication classes. It will be good to offer students study abroad for a semester. In addition, we should teach conversational language and specialized languages together with common literary language, because the purpose of teaching of foreign languages at schools is preparation of students for variety of communication situations, such as: - politics, sports, culture, etc. The reason of teachers' low qualification lies in their education. One of the reasons is to use such methods in teaching foreign languages as specialty and subject.

While teaching the future teachers of foreign language at high school, significant attention should be paid to the didactic of multilinguality. Focus should be made on learning 2-3 languages, as well as teaching of pedagogical – didactic subjects. The above mentioned combined courses for students must become one-subject oriented , the alternative only for the faculties intended for the development the teaching profession (which does not have a good perspective on today's labour market). It is necessary to extend the practical parts of such a course . Teachers will be able to teach independently within practice at schools. They should be transferred from receptive learning to the active teaching activities, which will contribute to their further professional activity. Such practices may include working as a long-term assistant to a teacher or development of joint projects along with classes, etc. This process can motivate students, perceive school life and students, as addressees of their future teaching.

Finally, we would like to note that the views expressed above are only our proposals, and we do not regard them as the sole solution to this problem.

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# **Infusion of Contemporary Issues in the Undergraduate Social Studies Programs of Two National Universities**

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*The purpose of this paper is to gain deeper insights into the way Social Studies programs are structured and taught in two national universities; one from Botswana and the other one from Nigeria; including, the extent of the infusion and presentation of contemporary issues in their Social Studies programs, program similarities, and the challenges faced by lecturers in the teaching of topics related to contemporary issues at the undergraduate level. Using a case study approach, this paper examines how contemporary issues, such as HIV/AIDS, drug abuse, child abuse, social policy, violence, reproductive health, climate change, to mention a few, are infused in the Social Studies programs of the two institutions under study, one each from Nigeria and Botswana. Methods of data collection were both qualitative and quantitative and they included case study of the Social Studies programs at the two universities. It was found that the Social Studies programs were structured along the use of integrated methodology with the infusion of contemporary issues across their courses with a high degree of similar content areas and challenges. The recommendations focused on the availability of teaching materials, enlarged classroom space, regular workshops, the use of external examiners, regular program reviews, among others.*

## *Introduction*

Following the 1968 Mombassa Conference in Kenya, African countries were encouraged to fully introduce Social Studies into their education systems across the African continent (Adeyemi, 2010). The countries that adopted Social Studies in their various curricula included Botswana, Nigeria, Sierra Leone, Ghana, Kenya, Uganda, The Gambia, Liberia, Ethiopia, Lesotho, Malawi, Somalia, Sudan, Swaziland, Tanzania, Zambia and Zimbabwe. Social Studies was seen as a new curriculum innovation with the following objectives for schools in Africa: (1) to enable students to understand people's interaction with their cultural, social and physical environments; (2) to help students appreciate their homes and heritages; (3) to develop skills and attitudes expected of citizens; and (4) to teach students to express their ideas in a variety of ways (Merryfield, 1991: 621).

All of the four objectives have implications for the development and constant review of programs and courses at all levels of education, and in this case Social Studies at the schools and faculties of education at the tertiary level of education in Africa. It is recognized that Social Studies is offered not in all universities in Africa and so this study purposively concerns itself with two selected national universities in Africa: one in Nigeria and one in Botswana where Social Studies programs are available at the undergraduate level. There was the limitation of conducting this study in more universities in Nigeria on account of time, distance and security. Further, interviewing as many lecturers as possible was hampered by their non-availability because some lecturers were on vacation.

There has always been an emphasis on the teaching and learning of contemporary issues in Social Studies at universities in Africa. This study is therefore vital if the structures, organization, themes, among others, on the infusion of these issues are to be understood between and among institutions, and particularly in the area of program development and review. Recent developments in the world have necessitated the infusion of contemporary issues such as HIV/AIDS, drug use, misuse and abuse, child abuse, reproductive health, climate change, and some societal values into the teaching and learning of Social Studies at the tertiary level of education in Africa. The fusion of relevant contemporary themes

or topics in the programs of tertiary institutions was seen as a way of producing graduates with the necessary skills of imparting knowledge to their students, so that they would be able to function in the global arena.

### *Objectives of Study*

The objectives of this study were to find out:

The structure of Social Studies curricula in the two selected universities, one each in Botswana and in Nigeria;

The extent to which contemporary issues are infused in their Social Studies programs;

The similarities with respect to the contents on contemporary issues in their Social Studies curricula;

The challenges faced by Social Studies teaching staff while teaching topics on contemporary issues; and

The solutions to the identified challenges faced by the teaching staff of the institutions under study.

### *Research Questions*

The following research questions guarded the investigation of this research:

How are the Social Studies programs/curricula at the two selected universities in Botswana and Nigeria structured in terms of integrated and single discipline approach?

To what extent are contemporary issues infused in their Social Studies programs?

Are there some similarities with respect to the contemporary contents in the curricula of the two institutions?

What challenges are faced by the Social Studies teaching staff in the teaching of contemporary issues?

How can the identified challenges faced by lecturers be solved?

### *Justification of the Research*

In a changing world, academic curricula should be influenced, reinforced, challenged and changed by cross-national studies. It is through comparative analysis that curriculum developers and researchers can gain an enriched understanding of how social, cultural, political, and economic factors shape current debates about the contemporary issues, skills and civic capabilities needed by learners in local and global contexts (Torney-Purta, 1991).

Accordingly, this study is capable of contributing significantly to the Social Studies curriculum development literature. It may also help inform curriculum review and improvement in the selected institutions and beyond. International comparative research informs the profession of what is going on in different cultures pertaining to some phenomena.

The findings emanating from this investigation may be used by educators to improve existing programs in their various institutions. Since program development and curriculum writing are a continuous process, this study may be capable of providing the much-needed information on the wherewithal of curriculum infusion in institutions of higher learning, not only in Africa but beyond. Further, the networking of scholars in Social Studies and related fields of study may result from this investigation.

The knowledge about contemporary issues may help deepen the perspectives of students and enable them to function in an increasingly diverse global society. It is very necessary through this type of study to add to existing literature of balancing past and present issues with a view to making the future better than both the past and the present.

### *Brief Literature Review*

This section deals with a brief literature review on contemporary issues in Social Studies. Contemporary issues in Social Studies programs and curricula have their roots in the Progressive education movement of the early century. Reconstructionist philosophy engenders the role of school as an agency for social improvement. The Reconstructionist philosophy approach to education tries to foresee future social directions by analysis

of past and present trends and then tries to improve on existing practices, with a view to restructure the present to suit the future generations of school leavers. Restructuring here may be in form of the organization of themes or topics or the way facts and figures are presented to the students, in other words, the subject or the recommended integrated method of teaching Social Studies in schools.

The innovation of instructional methods and emergence of reconstructive curriculum development, for example: environmental education and sex education, are not only restorative, but also transformational given the critical challenges of drug addiction, pollution, HIV/AIDS pandemic and other forms of resource depletion. In the case of the three institutions under investigation, efforts are made to research into the documents of how and to what extent their programs have contemporary issues infused in them.

While restoration of African values from the past is very important, the revitalization of culture through efforts to solve current problems and crises by including emerging issues in the Social Studies programs of institutions is equally vital. Several authors have asked the question of what kind of future society is emerging. What type of programs will enhance the survival of young people in the future?

The path to equipping the future generations may lie in the infusion of contemporary issues in the programs of institutions. Infusion of contemporary issues in schools is bound to have positive consequences for individual students and for the larger society. Knopf (1996), Gourdine and Sanders (2003) consider an infused model of teaching as the spreading of contemporary issues across courses within a curriculum and also using facts from many angles to clarify or examine the topics.

### *Methodology*

The methodology of this study involves both the qualitative and the quantitative approaches. The qualitative aspects include document study in the form of Social Studies programs from the two institutions under study, their course descriptions and objectives, content integration

which includes contemporary issues, instructional resources and materials, faculty and student views and learning styles on contemporary issues, instructional strategies and assessment diversification. Responses involving interviews from a few of the teaching staff are also used in the interpretation of data.

The quantitative aspect involves content analysis of the contents/topics dealing with contemporary issues in the two institutions under study. Content analysis enables the investigator to make valid inferences from the data to their context. It also involves the use of simple descriptive statistics.

The investigator has purposively chosen a national university in Botswana and a national university in Nigeria for this investigation. For the purpose of confidentiality, the two universities were coded as Universities A and B so that only the investigator could identify which university stands for letter A or B. As indicated earlier, more universities were to be used in Nigeria but left out for the limitation of time, distance and security. Therefore, the final study focused on two national universities, one in Botswana and the other one in Nigeria, purposively selected.

### *The Study*

This study took place between January and May 2014. This includes campus visitations, consultations and collection of relevant Social Studies documents. The early phase between January and February, 2014 resulted in the familiarization and contextualization of the target Social Studies programs at the two national universities.

The second phase between March and April, 2014 covers the period for interviews, and analysis of goals, contents and themes on contemporary issues in the three universities. The expected outcome during this phase is the understanding of the knowledge of the relationships between and among educational policies, academic contents, pedagogical processes and how contemporary issues intersect in the three institutions. The last phase of this study resulted in the writing of the first draft of the manuscript and making necessary revisions.

*Data Analyses and Findings*

*Structure of Social Studies Curricula*

The data analyses involve sequential treatment of data according to the research objectives and questions numbered from 1 to 5 earlier. Table 1 that follows concerns the structure of the Social Studies curricula in the two universities as to the emphasis and adoption of the use the integrated methodology in teaching the contents to students.

*Table 1: The Structure of Social Studies Curricula*

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University	Emphasis of the Use of Integrated Curriculum
A	Yes
B	Yes

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An examination of the *Handbooks/Prospectuses* from the two universities depicts that the recommended integrated methodology of teaching Social Studies was adopted in their curricula. This methodology was recommended at the Mombassa conference of 1968 for the effective teaching of Social Studies in schools. A part of the content of a course in one of the universities “IED 151-Introduction to Social Studies” includes the teaching of ‘Social Studies as an integrated and interdisciplinary concept’ (Obafemi Awolowo University, Faculty of Education/Institute of Education *Handbook* of 1022-2015, p.44).

At the University of Botswana, Faculty of Education, Department of Languages and Social Sciences *Departmental Booklet* 2006-2007, pp.27-28, Social Studies is taught with the use of integrated methodology. ELC 201 –Foundations of Social Studies describes the emergence and evolutionary development of Social Studies which by implication adopts

the integrated methodology of teaching Social Studies while ELC321 – Social Studies Teaching Methods/Models equips students with model of teaching and ELC411 – Curriculum Development for Social Studies Teachers emphasizes the problems encountered in defining objectives and organizing single and multidisciplinary programs.

In a nutshell, the three universities under investigation, according to Table 1 have structured their programs with the emphasis of teaching Social Studies with the use of the integrated methodology.

### *Infusion of Contemporary Issues*

Table 2 below deals with the extent to which the three identified universities have infused contemporary issues in their Social Studies curricula. Contemporary issues in this case can be defined as present day issues of interest to humans and the society. The Longman Dictionary of Contemporary English (2000, p. 295) defines the word ‘contemporary’ as ‘belonging to the present time’. For Social Studies Education, it goes further to build on the past and the present in order to make provisions for a better tomorrow. For instance, the study and treatment of sexually transmitted diseases had existed in the past and the present, but as new and deadly species, e. g. HIV/AIDS, it becomes necessary to break the ‘silence and the no-go area of teaching’ to teach new and emerging issues in the school curriculum.

*Table 2: The Extent of Infusion of Contemporary Issues*

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University	Extent of Infusion
A	High
B	High

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A classification of ‘low’ was assigned to a situation where topics on contemporary issues were found to be less than 30% of the entire topics

of the course content, 'moderate' to topics between 31 and 50 % and 'high' when over 50%. With regard to Social Studies programs at the two national universities, it means that relevant issues, topics and themes that are emerging and relevant to the current era of today are taught in Social Studies. Topics relevant to current societal problems and solutions to them such as climate change, drug use and abuse, marital problems and solutions, HIV and AIDS education, immigration issues, family life education and many others may form part and parcel of the Social Studies curriculum.

One of the universities under study has some courses e.g. – IED 154 – The Family in Traditional and Contemporary Societies, IED 355 – Environmental Education and Sustainable Development, IED 454 – Urban Development and Social Problems, to mention a few. Another university has ELC 421 – Global Perspectives and Materials in Social Studies – which examines the emerging notion of a world as a global village, EEL 401 – Environmental Education Strategies, among others from which Social Studies students can offer. Another university has also encouraged the infusion of HIV/AIDS education in all its programs, to sensitize students to the better understanding of the pandemic. Generally, the three universities have developed their Social Studies curricula to cater for contemporary issues and the extent of infusion is rated high.

### *Program Similarities*

An examination of the Social Studies course outlines and descriptions, and other available documents in the two universities depicts the inclusion of similar topics and themes in their programs. Table 3 that follow shows how similar the courses are with respect to their course titles and course descriptions.

Table 3: The Similarities in Their Curricula

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Universities	Similarities
A and B	Almost similar. Culture – Bias

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A content analysis of the course titles and descriptions of five similar courses dealing with infusion of contemporary issues in Social Studies programs in the two national universities indicates a high degree of similar topics and themes in their programs. A content analysis, according to Krippendorff (2004, p. 21), which enables the replication and the making of valid inferences with the use of similar courses, was adopted. An 84% agreement (or similarities, kappa of 0.84, (p <0.000) in terms of contents dealing with contemporary issues was recorded between the two universities. Some of these contents encompassing aspects of concepts of citizenship, the role of the family in development, sustainable development, HIV/AIDS issues, poverty, urban issues, problems of public utilities, environmental issues, among others, are emphasized by the two universities in their respective *Handbooks and Departmental Booklets*.

An aspect of note in the two universities is the culture-bias inherent in the topics and themes of their programs. While the description of the Social Studies courses indicate the inclusion of Pan-Africanism and issues on the African continent in addition to domestic issues, emphasis on international/continental themes seems to be higher than that of the African continent or environment. The African Social Studies Program, apart from recommending the teaching and learning of domestic and national issues, also gives credit to issues confronting the African continent.

*The Challenges or Problems faced by Teachers in Teaching Contemporary Issues*

In examining the challenges faced by teachers in the fusion and teaching of contemporary issues in their Social Studies programs, the problems across the institutions are very similar and not peculiar to a specific university. To this end, what challenges or problems do lecturers face in teaching contemporary issues? While the lecturers face many challenges, Table 4 below shows the major challenges faced by the lecturers in teaching contemporary issues in the teaching-learning process.

Table 4: The Challenges faced in Teaching Contemporary Issues

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Universities	Challenges
A and B	Teaching Materials Classroom Space Large Class Size

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The lecturers posited that teaching materials have posed a great challenge to the teaching of contemporary issues in the classrooms. These teaching materials include the availability of current textbooks, which deal with treatment of current and emerging issues locally, regionally and internationally. When available, they are very few in numbers and exorbitant in prices. As a result, it is often the case to depend on textbooks from abroad, which may not treat topics on contemporary issues from the standpoint of African perspective.

In addition, the use of technology in teaching is difficult because of the cost of laptops, appropriate software, overhead projectors, films and filmstrips. The use of the technology of blackboard, modules, and other online delivery of contents to learners is a challenge because of costs, and in particular the constant failure of electricity. In short, the much-

publicized use of e-learning is regarded as an ideal, but in actual fact an elusive means of teaching.

More often than not, because of large class sizes, it is difficult to impart contents dealing with contemporary issues to students. The teacher-student ratio is as high as 1: 250 in some Social Studies classes and therefore, teacher-student interaction is difficult. In this type of situation, the depth and quality of teaching and learning are compromised.

### Solutions to the Identified Challenges

The lecturers, by way of interviews and observations, have put forward similar solutions. Table 5 which follows summarizes the solutions as identified by the lecturers.

Table 5: The Suggested Solutions to the Identified Challenges

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Suggested Solutions
Availability/Publication of New Materials
Large Classroom Space
Regular Local and International Workshops/Conferences
Benchmarking of Social Studies Programs
Local and International External Examiners' Reports
Regular Program Reviews
Reduction of Culture Bias

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The recommendation that new teaching materials on contemporary issues be published and readily made available cuts across the three national universities. It was also suggested that the costs of these books and materials should be reduced by way of low duty by various governments. In order to reduce teacher-student ratio, it was suggested that spacious classrooms in form of teaching theaters be available for

large classes. The employment of more lecturers could also reduce high teacher-student ratio.

Regular attendance at local and international workshops and conferences to enable lecturers to keep abreast of current and contemporary issues in their field has also been suggested. This according to them will enable lecturers to be current in the methodology and the subject matter of contemporary issues.

It was also suggested that programs of various universities be studied and standardized topics or themes be agreed upon as benchmark to be used at various universities where Social Studies programs are available. In fact, the use of external examiners can also go a long way to further enhance the teaching of contemporary issues in universities. The reports emanating from the external examiners can suggest the way and means of enriching the themes on contemporary issues at various universities. Such reports can lead to universities reviewing their Social Studies programs regularly to cater for emerging and contemporary issues. Curriculum development should consider the needs of the society at present and in the future. This may necessitate the need to conduct a needs analysis of what a society needs currently and in the future.

Through these efforts, culture-biases in terms of topics and themes can be reduced to make way for a broad perspective of dealing with and teaching contemporary issues at the universities. Since it is recognized that cultures differ in the way people visualize phenomena, topics or themes pertaining to a particular culture may be prominent in the topics and themes of a Social Studies curriculum or program, depending on the cultural background or location of the institution.

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## ***Political Science and International Relations***

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### **The Participation of the Russian Federation In Nagorno-Karabakh Resolution**

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*This article explores the causes of the Nagorno-Karabakh conflict while analyzing the possible solutions along with the possible role of the Russian Federation in the settlement of the Nagorno-Karabakh issue. The author believes that the Russian Federation has all the necessary instrumentalities of power – military and political, economic and diplomatic – to resolve the Nagorno-Karabakh conflict, which for a quarter of a century has been a threat to the regional security in the Caucasus and in the entire Middle East.*

Among all the ethnic conflicts in the South Caucasus, the Nagorno-Karabakh conflict is the one with the most strategic and region-wide significance. This rift is the only one on the territory of the former Soviet Union, whose direct participants were two independent states – Azerbaijan and Armenia. Since the start of the conflict escalation, Nagorno-Karabakh has been a source of a growing threat to regional security in the Caucasus and in the entire Middle East.

Despite the fact that the Armenian-Azerbaijani dispute to obtain Nagorno-Karabakh has been ongoing for over 100 years, and for the last 20 years it has been in a state of “cold confrontation”, in our opinion, comprehensive research on the dispute is lacking. Although, in general, a considerable amount of academic literature and journalism is devoted to the Nagorno-Karabakh issue (see: Zdravomyslov, 1999, p. 286; Zolyan, 2001, p. 435; Cornell, 2001; Kazimirov, 2009, p. 45.) there are practically no studies that contain a comprehensive analysis of the contribution of the participants in the negotiations upon the settlement of the Nagorno-Karabakh conflict from the OSCE Minsk Group, in particular from the Russian Federation. In this article the author aims to find out the causes of the Nagorno-Karabakh conflict, to examine the possible solutions and to determine the opportunities and the role of the Russian Federation in the settlement of the Nagorno-Karabakh issue.

To understand the causes of the conflict, we turn to its history, as both the Armenian and Azerbaijani sides, when trying to prove their rights to Nagorno-Karabakh, have resorted to historical arguments. It is commonly known that in the II century B.C. the territory of modern Nagorno-Karabakh was joined to Greater Armenia and for centuries it was a part of the province of Artsakh. In the second half of the XVIII century, Nagorno-Karabakh with the prevalent Armenian population joined the Karabakh khanate, and in 1813, as a part of the Karabakh khanate, in accordance with Gulistan Peace Treaty, it was transferred to the Russian Empire. At the beginning of the XX century Nagorno-Karabakh became the scene of bloody Armenian-Azerbaijani clashes twice (in 1905-1907 and 1918-1920).

After the proclamation of the Soviet government in the Transcaucasia, in Nagorno-Karabakh in 1924, the Nagorno-Karabakh Autonomous Region

(Nagorno-Karabakh) was created and it became a member of the Azerbaijan SSR in 1936 in accordance with the USSR Constitution. In the following years, the Armenian elite (and the ordinary Armenians living in Karabakh) repeatedly sought to compel the political leadership of the Soviet Union to transfer Nagorno-Karabakh, which was predominantly inhabited by the Armenian, to the Armenian SSR, but the Kremlin ignored these requests. In August 1987, the Academy of Sciences of the Armenian SSR sent a petition to Moscow with the request to transfer Nagorno-Karabakh to the Armenian SSR. The non-response from Moscow contributed to proliferation of rumors in Yerevan regarding the imminent transfer of Nagorno-Karabakh to Armenia and the amplification of separatist sentiments in Nagorno-Karabakh. On February 11, 1988, a protest demonstration was held in Nagorno-Karabakh against the cultural and economic policy of official Baku, and on February 20 the Council of People's Deputies of Nagorno-Karabakh adopted a resolution on the Nagorno-Karabakh issue statement regarding the transfer of the region from Azerbaijan to Armenia in front of the Supreme Soviets of the Armenian SSR, Azerbaijan SSR and the USSR.

This step led to the escalation of the conflict in and around Nagorno-Karabakh as well as to the beginning of the armed phase of confrontation. Both sides began formation of combat units, acquisition of weapons and military equipment. Azerbaijan attempted an economic embargo towards Nagorno-Karabakh. In response, on December 1, 1990 the Supreme Council of the Armenian SSR decided to establish the Republic of Armenia, which unilaterally included Nagorno-Karabakh.

In September 1991, Nagorno-Karabakh proclaimed independence, according to the results of a referendum, which was held under the laws of the Soviet Union that still existed at the time. However, this decision was not recognized both by the government of Azerbaijan and, after collapse of the USSR in December 1991, by the international community guided in this matter by "The criteria for the recognition of new states in Eastern Europe and on the territory of "the Soviet Union", adopted by the ministers of foreign affairs of the European Community on December 16, 1991 (Hannum, 1993, pp. 84-85). To understand the reasons for the non-recognition of the Nagorno-Karabakh Republic by the Western countries,

it is necessary to pay attention to a statement made by the member countries of the European Community on December 23, 1991, that no states established as a result of armed rebellion would be recognized. (Hannum, 1993)

Shortly after collapse of the Soviet Union, the Nagorno-Karabakh conflict entered into an armed phase. In May 1994, the conflicting parties signed a ceasefire agreement. The military defeat suffered by Azerbaijan led to the loss of its control over Nagorno-Karabakh and, partially or completely, over the seven surrounding areas, which the Armenian forces considered as “a safety zone” between the self-proclaimed Nagorno-Karabakh Republic (NKR) and Armenia.

From that moment on, negotiations for a peaceful settlement of the conflict have been held. Azerbaijan seeks to restore its territorial integrity, while Armenia protects the interests of Nagorno-Karabakh. Complementary to these countries, there are also other players who participate in the conflict settlement, and the main ones are the Russian Federation and the United States of America. However, the conflict is still not resolved due to the diametrically opposed views on the solution of the Nagorno-Karabakh issue and the difference in the interests of the international mediators.

In 1997, as a result of intensive consultations, the OSCE Chairman appointed France, Russia and the United States as co-chairs of Minsk Conference upon the settlement of the Nagorno-Karabakh issue, which began its activity in 1992. In summer of 1997, the OSCE Minsk Group co-chairs offered to take a package reconciliation as a basis for further negotiations, which provided for withdrawal of the Nagorno-Karabakh armed forces to the territorial boundaries of the autonomy and return of the Nagorno-Karabakh administrative status in Azerbaijan.

This proposal, which the first President of Armenia Levon Ter-Petrosyan tended to support, was clearly rejected by Armenia and the Nagorno-Karabakh Republic for the reason of the lacking, in their point of view, legal guarantees for the ethnic Armenians, who were reverting to being under the jurisdiction of Azerbaijan. The NKR radical political forces, Armenia and the influential Armenian diaspora launched a campaign of harsh criticism of this resolution option, whereby the President of

Armenia Levon Ter-Petrosyan resigned and the former President of the NKR R. Kocharyan came to power. The latter was an active supporter of Nagorno-Karabakh separation from Azerbaijan.

Yerevan as well categorically pitched against the "Gobble's Plan"<sup>1</sup>, proposed by American politician Paul Gobble in 1988, which was based on the principle of territorial exchange, as officially stated by the Armenian President Robert Kocharyan and the leaders of all parliamentary groups and factions of the Armenian Parliament, considering it an unacceptable violation of the territorial integrity of the Republic. Since then, the negotiations have reached an impasse, as none of the parties wishes to make any concessions.

Standing for preserving the territorial integrity of the country within the borders of 1988, Azerbaijan gives its consent to grant Nagorno-Karabakh broad autonomous rights. However, the anti-Armenian policy pursued by official Baku has created a situation under which Nagorno-Karabakh is not psychologically ready to make any concessions. As for the "Gobble's Plan", official Baku is considering the prospect of sharing "the geographical corridors" between Armenia and Azerbaijan (Nagorno-Karabakh and Nakhchivan) as a possible resolution option.

Russia plays the most active role in the negotiations upon the peaceful settlement of the Nagorno-Karabakh conflict. On the one hand, it is a strategic partner of Armenia, according to the Treaty of Friendship, Cooperation and Mutual Assistance of 1997. In addition, being the members of the CSTO, both countries are military allies: thousands servicemen of the 4<sup>th</sup> RF army have been accommodated in the Armenian city of Gyumri. On the other hand, Russia is actively cooperating with official Baku in terms of rearmament of the Azerbaijani Armed Forces while selling the weapons and military equipment to the latter. This

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<sup>1</sup>The basis of the "Goble plan" to resolve the Karabakh conflict through the exchange of territories is establishing a direct geographical connection between Armenia and Nagorno-Karabakh, on the one hand, and Azerbaijan and Nahichevan - on the other. For the US, a version of the exchange of territories is the most appropriate as regional rapprochement in line Azerbaijan-Nakhichevan-Turkey means the elimination of the land border between Armenia and Iran. Baku considers the prospect of exchanging "geographic corridors" between Armenia and Azerbaijan (Nagorno-Karabakh and a Nahichevan) as an opportunity to achieve the greatest success. Moscow also supports Armenia, which seeks to preserve the existing official border.

policy is aimed at enhancing the Russian influence in the Caucasus. After all, Russia has its specific interests in the Transcaucasia region, which are to maintain political, economic and military dominance in the Transcaucasia, to harmonize most of the foreign policy of the Transcaucasian states with Russia's interests as well as to prevent emerging of the role of third-party countries in the region (particularly Turkey, the USA and Western states).

Russia is trying to treat the Karabakh conflict resolution within a broader geopolitical context, associating it with the general processes, which take place in the North Caucasus and the CIS. Thus, according to the analysts of the Russian Institute of Europe, the objective of Russia is oil itself (opponent to the Russian one) as an independent financing source for Azerbaijan and Kazakhstan and Turkmenistan rather than the routing of oil export pipelines. For this reason, Moscow has actively supported the position of Armenia in the deviation from the "Gobble's Plan", providing for territorial exchange, since the transition of the southern part of Armenia under the Azerbaijani jurisdiction or under the control of international peacekeeping forces will eventually close Russia's entries to the regions of the South Caucasus and the Middle East.

In order to increase its role as the main mediator in the Nagorno-Karabakh conflict, Russia has been actively using both its status as the co-chair of the OSCE Minsk Group and the possibility to influence the parties of the conflict during the trilateral meetings with the Presidents of Armenia and Azerbaijan, which have been held during the CIS summits. For instance, on October 8, 2009, Chisinau hosted the fifth meeting of the Presidents of Armenia and Azerbaijan with participation of the OSCE Minsk Group. The next day during the CIS summit, a trilateral meeting between the Presidents of Azerbaijan, Armenia and Russia was held in the same place, during which the President of Russia Dmitry Medvedev confirmed the fundamental approaches of Russia in terms of the Nagorno-Karabakh issue, as set out during the trilateral meeting of the Presidents of Russia, Armenia and Azerbaijan on November 2, 2008 (Prezidenty Armenii, Azerbajdzhana i Rossii podpisali deklaraciju ob uregulirovanii karabahskoj problemy, 2008). Their essence reduces to the following: "Russia is opposed to imposition of any recipes from outside to the conflict parties and judges by the fact that the

primary responsibility for the final choice shall be born by the Azerbaijanis and Armenians; Russia is ready to support such a solution to the problem that will satisfy all the parties involved, and if a compromise is reached, it will act as a guarantor of the settlement; a solution will be viable only if it allows to regain stability and peace in the Transcaucasia as well as helps to maintain the historically formed geopolitical power equation there during the post-conflict period without turning the region into an arena of international political and military rivalry.” (Ivanov & Zhuravel, 2009)

Concerning the practical proposals from Russia, they focus on introducing peacekeeping forces into the areas occupied by the Armenian forces of the so-called “security zone” and on being a State-Guarantor of a conflict resolution, thereby strengthening its military and political presence in the South Caucasus. The Russian experts do not exclude the fact that the settlement of the Karabakh conflict is also possible in case of implementation of the Russian-Turkish agreements on the division of spheres of influence in terms of the Karabakh issue. Its essence lies in the fact that Ankara affects Baku in order the latter agreed to define the status of the NKR through a new referendum in the self-proclaimed republic, while Moscow shall convince Yerevan of the need to withdraw the Armenian forces out of the seven districts. (Yuzhny, 2012)

Thus, implementation of the Russian plan provides for separation of the conflicting parties, start of the withdrawal process and restitution of the territories and refugees from the three sides. The main point is that Azerbaijan shall recognize the right to self-determination of Nagorno-Karabakh. However, the main drawback is contained just in the last paragraph, as until now official Baku rejected the principle of national self-determination, offering an internationally-recognized principle of the state territorial integrity as a legal basis for the conflict settlement. Nevertheless, the Russian supporters of the Karabakh reconciliation plan believe that the compelling stand of Azerbaijan can change when the latter enters the Eurasian Union. As they believe, there will also be a place for “self-proclaimed” republics like the NKR. (Yuzhny, 2012)

For instance, Russian researcher A. Podberyozkin believes in the possibility of such a way of settling the conflict. He thinks, “implement-

tation of the Eurasian Union will open the way to a real and rapid settlement of the Karabakh conflict under the terms, mutually acceptable by the hostile parties” (Yuzhny, 2012). He also believes that the Eurasian Union “is the best solution to all international conflicts and territorial disputes in the post-Soviet space, as there will be no customs barriers, borders, visas among the countries of the Eurasian Union, as well as there will be a single economic area. In such a format all the grounds for the conflict between Azerbaijan and Armenia will vanish.” (Yuzhny, 2012)

However, the 20-year history of the negotiation process regarding Nagorno-Karabakh does not give any grounds for optimism. As a matter of fact, they increasingly state in Baku that if negotiations fail, Azerbaijan is ready to return the occupied territories by military means. In response to the statements by the Azerbaijani side, Armenian President Serzh Sargsyan stated that in the event of military aggression from the side of Azerbaijan, Armenia would recognize the independence of the NKR. Contrary to these claims, it is necessary to take a note that in general the parties to the conflict are going to coordinate their actions in accordance with the Declaration on the Karabakh conflict settlement of November 2, 2008 signed by the Presidents of Azerbaijan, Armenia and Russia. (Prezidenty Armenii, Azerbajdzhana i Rossii podpisali deklaraciju ob uregulirovanii karabahskoj problemy, 2008)

Overall, preserving the status quo in the Nagorno-Karabakh issue can be evidenced, in particular, by the events of 2010, when Armenia and Russia prolonged the agreement on the Russian military base in Gyumri city, the presence of which, in the opinion of Yerevan, is a safeguard against Azerbaijani invasion. In the same 2010 Azerbaijan signed a strategic partnership agreement with Turkey providing for military assistance to Azerbaijan in case of war. In response to this, at the OSCE summit in Astana on December 2, 2010, the Armenian President announced that if Azerbaijan started a war, Armenia would have no choice but to recognize the independence of Nagorno-Karabakh and ensure its security. (Mailyan & Sarkisyan, 2011)

In this situation, Russia is trying to establish a new equilibrium of relations in the triangle of Russia-Armenia-Azerbaijan, as evidenced by

the conclusion of the military agreement with Armenia in 2010, and growing energy ties and military sales of the Kremlin with official Baku.

Successful foreign policy of Russia in the South Caucasus, in our opinion, was the first result of the failure of such international players as the United States and the EU or at least of the systematic weakening of their position. Although, at the same time, in March-April 2001, the US took the lead in bringing the Armenian and Azerbaijani sides to the negotiations at Key West (Florida) and reportedly both sides were closer to the deal than ever before or after. France has organized several summits between the Armenian and Azerbaijani presidents with the French president as an intermediary, the most recent one in October 2014. Thus, the point at issue is that Russia virtually retains the monopoly in the peace settlement process between Armenia and Azerbaijan.

Meanwhile, the mediation mission of Moscow raises a question whether Russia wants a quick solution to the conflict in Nagorno-Karabakh. "It is highly unlikely," Azerbaijani researcher Elkhan Nuriyev writes, "that the Russian peace negotiations led to the effective solution to the crisis in the near future. To move this region more into its orbit of influence, Russia only needs to keep the existing situation in the South Caucasus. Given these circumstances, Russia is simply interested in preserving "the managed instability" in the region." (Nuriyev, 2011)

All in all, according to E. Nuriyev, "Russia's role in finding the final solution to the Nagorno-Karabakh crisis is extremely important. There is no doubt that it is the Kremlin that holds the key to the Armenian-Azerbaijani problem. Russia holds golden cards to put an end to this protracted territorial conflict and to help the two nations to achieve reconciliation. Moscow, however, seems to be waiting for the moment when a new, politically advantageous situation, corresponding to the strategic interests of Russia, will establish in the post-Soviet "Southern Tier". "Until it does not happen," E. Nuriyev believes, "the game will continue and there will be no end to it."

The Western democracies are certainly not entirely helpless in changing the behavior of Russia in the backyard of Europe. The United States and the EU need to understand that their willingness to make sacrifices will

not remain without consequences in this strategically important area. Moreover, if the Western players continue their policy of letting Russia pass forward and calmly watch as the Russian economic, military and political influence is growing in Nagorno-Karabakh in the pursuit of the peaceful settlement, they risk to lose a big geopolitical game.” (Nuriyev, 2011)

So, for more than 20 years from the time of signing of the agreement on cessation of hostilities in Nagorno-Karabakh, with the assistance of international mediators (OSCE Minsk Group), the process of finding a compromise between the conflicting parties and affordable option for them of conflict resolution is taking place. The leading role in regulation seeks to play Russia - a country that has the status of co-chair of the OSCE Minsk Group. The Kremlin, that has the capacity to end this prolonged territorial conflict and help two nations to achieve reconciliation currently took wait and see position, hoping for weakening of interest of the West to the South Caucasus region, which, respectively, will force parties to the conflict to take into account Russia's interests in the region, most of which is full control over the processes on the territory of the South Caucasus. For now Moscow intensively arming Azerbaijan and Armenia - main participants in the conflict in Nagorno-Karabakh.

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## **The Prospects of ODED-GUAM Revival**

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*Russian war on Ukraine rendered the latter the fourth post-Soviet state – after Georgian, Azerbaijan and Moldova – that does not de-facto control the entirety of its internationally recognized territory. Since the mentioned states have all been members of the once active international organization ODED-GUAM, their common security challenge might revive a currently dormant partnership. But the domestic circumstances in some of the countries, as well as unfavorable regional and international junctures all but exclude meaningful partnership at the moment.*

The annexation of Crimea in March and the subsequent crisis in the Eastern Ukraine that continues to this day confronted Europe with a very significant security challenge and underscored the weakness of not only Ukraine, but of the West as well. The latter lacked the political will to stand up for a country, which only months before that had unequivocally turned to the West and unseated a corrupt pro-Russian leadership. To this end, Ukrainian society snubbed a lucrative Russian offer of USD 15 billion aimed at turning Ukraine away from signing EU's Association Agreement.

And yet, when it came to paying a heavy price for its pro-Western choice, Ukraine ended up all by itself against an assertive and vindictive Russia, as its Western partners contented themselves with voicing "grave concerns" and suboptimal sanctions against Russia, which so far have been strengthening Moscow's resolve more than have harmed its economy.

Russian aggression proved particularly humiliating for the United States and the United Kingdom – the very states that signed, along with the Ukraine and the Russian Federation the Budapest Memorandum of 1994, whereby they pledged an immediate assistance to Ukraine in case the latter becomes the victim of aggression (Budapest Memorandum, 1994).

The dramatic events of 2014 have put Ukraine into the group of other three post-Soviet states that have parts of their territories occupied. And this is not a coincidence that these four states – Georgia, Ukraine, Azerbaijan and Moldova – have been the member-states of an informal grouping and later international organization by the name GUAM (G-Georgia, U-Ukraine, A-Azerbaijan, M-Moldova), which was created in 1997 with strong US backing. The very idea of this organization crystallized as the four future member-states tried to develop a mechanism to weaken the overbearing influence of the Russia Federation and the determination of the latter to derail the cooperation of the CIS (Commonwealth of Independent States) countries with the West (Shelest, 2013, 138-139).

More generally, the creation of GUAM – then a quadripartite grouping – in 1997, on the sidelines of the Council of Europe Summit in Strasbourg was an eloquent reflection of the split that was taking place in CIS at the

time. The division was between the countries that preferred (or were forced to choose) comprehensive cooperation with Russia, including security, and which consequently joined the Russia-led CSTO (Collective Security Treaty Organization) and the countries who prioritized Euro-Atlantic institutions over Russia as their potential main partners.

The leaders of the countries as well as their foreign ministers held frequent meetings among themselves as well as with Western supporters, thus raising the international profile of the group. The importance of GUAM in mid-2000 is best attested to by the irritation it was causing in Moscow, which openly branded the format as the “anti-Russian belt” (OON stanovitsja arenoj bor'by Rossii, 2006). The activities and initiative of the political leadership of the four countries came to fruition in 2006, when it was officially upgraded into an international organization ODED-GUAM (Organization for Democracy and Economic Development – GUAM) (Istorija GUAM, n.d.).

Surprisingly, having gained the status of an international organization, GUAM has since gradually lost most of its renown and international stature and has all but disappeared from news headlines and international summits, for a number of reasons. Suffice it to say that in two recent collections of scholarly articles, *South Caucasus: 20 Years of Independence* (2011) and *The South Caucasus 2018: Facts, Trends, Future Scenarios* (2013), published by the Friedrich Ebert Foundation and Konrad Adenauer Foundation respectively, there is virtually no mention of GUAM – an eloquent attestation to its waning significance.

But fact that Ukraine joined the unenviable group of countries who experienced direct aggression of a foreign power has revived the idea of regional cooperation in the face of common challenge. So far the notion of GUAM's revival has not transcended scholarly debates and analysts' inquiries, but it might make sense to assess the odds of resumption of erstwhile intense activities of the four countries, united by common challenges (Mezhdunarodnyj kruglyj stol, 2014).

It is important to keep in mind that it is the unity of purpose and similar foreign policy orientations that makes an efficient region, along with favorable international context, as many foremost scholars of Regionalism agree on (Fawcett, 2013). In 1997, when GUAM was

conceived, both factors seemed to have been in place. By the mid-1990s understanding of the geostrategic importance of the South Caucasus region has gradually sunk in with the top US policy-makers, which manifested itself in strong US backing for major energy projects, first and foremost Baku-Tbilisi-Ceyhan oil pipeline that subsequently contributed to strengthening of Georgia's and Azerbaijan's statehood (LeVine, 2007). At the same time, US-Ukrainian relations were also running high under the Clinton Administration, which by 1994-1995 had abandoned the "Russocentric" approach of his predecessor, George Bush (Senior). An eloquent manifestation of these intensified relations was their elevation to the status of "strategic partnership" in 1996 (Dybovyk, 2006). Similarly, deviation from Bush Seniors's Russocentrism improved relations between Washington and Chisinau as well.

At the same time, as was already mentioned, all four republics were extremely resolute in their determination to shed Russia's political and economic domination. This very combination of strong US backing and unity among constituent states explains the relative strength of GUAM in its early years.

So, it is important to find out whether the factors ensuring GUAM's efficiency are in place today. First, let's study conducive the international landscape is for GUAM's revival. If the United States (chief supporter of the grouping in the 1990s) and the West in general were the unrivalled leaders of the world, economically, politically and ideationally, today its preeminence and capacity for leadership is far more questionable. Granted, the United States announced that the three GUAM countries – Ukraine, Moldova and Georgia – will be no-member recipients of American military assistance thus boosting their defense capabilities (White House, 2014). But this pledge of support is unlikely to deter the potential Russian aggression, as has been already evidenced in Ukraine lately. This is a stark contrast with the late 1990s and early 2000s, when strong backing on the part of Washington was a quite sufficient deterrent.

And the second reason is a common vision of the four GUAM countries, which is woefully absent. Importantly, it is absent in Azerbaijan, arguably GUAM's economic and energy muscle, since creation of energy

corridors bypassing Russia were conceived to be a potent means to enhance the countries' political independence. If in the early days of GUAM all four countries were determined to westernize, this no longer can be said of Azerbaijan. Joining the Non-Aligned Movement seriously weakened Baku's pro-Western impetus, which was already marred by the constantly deteriorating Human Rights record (Mazziotti, M. et al, 2013). Even though Baku is still trying to push for extension pipelines, like TAP (Trans Adriatic Pipeline) and TANAP (Trans Anatolian Pipeline), with its significantly weakened pro-Western leaning the country will not be so tenacious in pursuing these alternatives, all the more since they are all but dead after Russia's recent decision to drop the South Stream and sell more gas to Turkey (Kosrunskaya, 2014).

As one can see, neither an international setting (politically weak West) nor foreign policy goals' alignment favors the transformation of GUAM into a viable international organization.

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## **Identifying Socio-Economic Characteristics Affecting Happiness in Armenia, Azerbaijan, and Georgia**

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*To identify the household socio-economic characteristics influencing happiness in Armenia, Azerbaijan and Georgia, a logistic regression model was estimated for each country using the data from the Caucasus Barometer survey conducted by the regional offices of the Caucasus Research Resource Centers in 2013. The results of estimation show that health status, marital status, religion, and personal debt were statistically significant determinants of happiness in Armenia, Azerbaijan, and Georgia. Income was a significant determinant of happiness in Azerbaijan and Georgia. Age and household size variables were statistically significantly impacting happiness in Armenia. Believing in the presence of democracy in the country and education were found to be statistically significant determinants of happiness in Azerbaijan.*

## *Introduction*

One of the most commonly shared goals in the world is probably the pursuit of happiness. Everyone tries to maximize happiness or subjective well-being throughout their lifetime. Thus, identifying the sources of people's well-being is a concern of great importance in the social sciences. Reaching higher standards of living and ensuring the social well-being of citizens is one of the most important responsibilities of the government. Previous research has shown that people, who have a higher level of social well-being, perform better. As such, by maximizing the social well-being, the government promotes social, economic, political, and cultural development of the country (Frey & Stutzer, 2002).

For decades, economic growth has been considered as one of the most comprehensive measures of social well-being. Although widely accepted as a measure of well-being, this approach has been rejected by a number of scholars. Particularly, recent studies tend to insist that at a certain level economic growth stops explaining social well-being; hence it cannot be accepted as a necessary and sufficient measure. Abramovitz (1959) concluded that "we must be highly skeptical of the view that long term changes in the rate of growth of welfare can be gauged even roughly from changes in the rate of growth of output" (p. 3). In his essay, Abramovitz (1959) distinguished two concepts of social well-being: social welfare or welfare at large and a narrower concept of economic welfare to be measured by national product. He suggested analyzing happiness taking these two concepts together as a more comprehensive measure of standard of living. Even with this comprehensive indicator as a better measure of social well-being in place, it is still hard to give a precise definition of happiness. In fact, defining happiness has been a question for mankind for thousands of years.

## *Defining Happiness*

Since ancient times, great minds have tried to give a definition of the concept of happiness. Plato observed that "Happiness is living well". St. Augustine defined happiness as satisfaction of all desires throughout one's lifetime, given that nothing amiss is desired. For Kant, happiness

was the “end all men sought in life” (Unknown Source, 2014). Langford and Bentham (1996) defined happiness as “the sum of pleasures and pains”. Subjective well-being is defined as satisfaction from life, dominance of positive toward negative. Considering all these definitions, the term “happiness”, in this paper, shows the degree at which a society is satisfied with particular elements of life (e.g. satisfaction with living and economic conditions). It is worth mentioning that, in the present study, like in many other research articles on happiness, the concepts “happiness”, “subjective well-being”, and “life satisfaction” are used interchangeably.

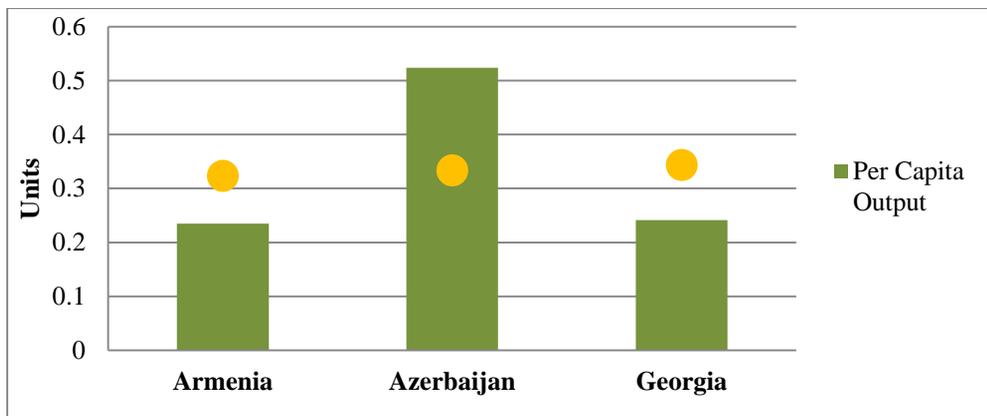
### The Economics of Happiness

The economics of happiness is considered a comparably new yet a quickly developing branch of economics. The stream of research on economics of happiness started from Easterlin, who, in 1974, questioned one of the fundamental assumptions of neoclassical theory stating that the subjective well-being of the society is maximized by increased income (Easterlin, 1974). In his paper, Easterlin showed that the absolute value of income increased happiness. However, this statement was consistent only for comparisons within country. In cross-country comparisons, Easterlin revealed that happiness could merely be measured by per capita output (Easterlin, 1974). Since 1974, this topic has been largely discussed by a number of researchers. In fact, by the year 2000, more than 4,350 articles had been published on economics of happiness (Veenhoven, 2007). In addition, the study enters new stages of development and analyzes wider range of variables affecting the happiness of society.

Currently, as it is a rapidly progressing field of research, to the best of our knowledge, happiness has not been empirically analyzed in the countries of the South Caucasus (Armenia, Azerbaijan, and Georgia). However, the findings from the research on happiness may shed light on the factors affecting the well-being of the South Caucasus countries and will give an opportunity for policy makers to develop policies targeting an increase in happiness.

According to the Caucasus Barometer (CB) survey results, conducted by the Caucasus Research Resource Centers (CRRRC) in 2013, the average happiness scores for Armenia, Azerbaijan, and Georgia were 6.4, 6.6, and 6.8, respectively. At the same time, following the neoclassical assumption that only income affects well-being, it needs to be pointed out that in 2013 the per capita Gross Domestic Product (GDP) of Azerbaijan (7,812 USD) was more than that of Armenia (3,505 USD) and Georgia (3,602 USD) (World Bank, 2014). These numbers, once again, highlight Easterlin paradox stating that income alone cannot fully describe happiness. There is a set of other variables that can explain the difference in happiness across countries. Figure 1 illustrates the relationship of average happiness score and per capita GDP level for Armenia, Azerbaijan, and Georgia.

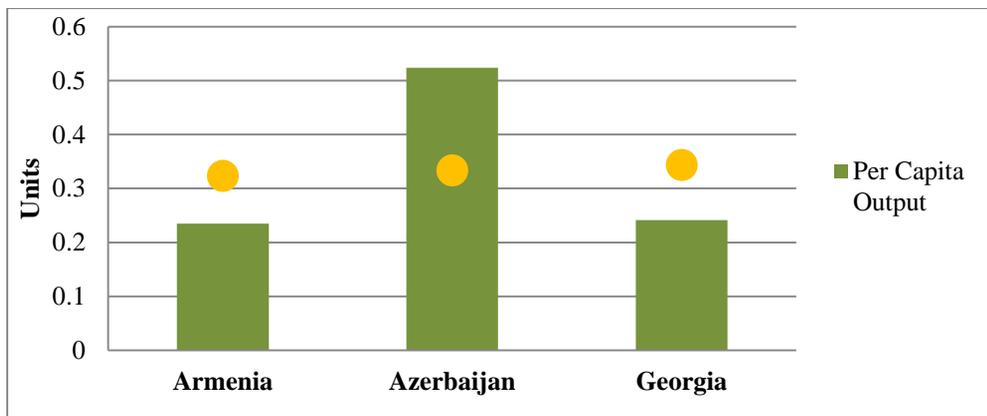
*Figure 1. The Relationship between Happiness Score and per Capita GDP for Armenia, Azerbaijan and Georgia*



Source: The World Bank, 2014

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*Figure 1. The Relationship between Happiness Score and per Capita GDP for Armenia, Azerbaijan and Georgia*



Source: The World Bank, 2014

older made people unhappy. In addition, whites reported to be happier than blacks.

As far as cross national comparisons, the results were ambiguous. The four lowest income countries were neither in the bottom nor in the top of the ranking of happiness. Nonetheless, a conclusion was drawn that within a country, income level plays a vital role in determining happiness, whereas in cross country comparisons the trend of happiness cannot be explained by national output (Easterlin, 1974).

Since 1974, a number of scholars have tried to explain this paradox named after Easterlin, thus advancing the development of the economics of happiness. A widely used explanation for the paradox was the concept of relative income playing the main role in determining happiness rather than the absolute value of income. An analogy with the example of height of a person was discussed, where an average American was taller than an average Indian. However, if one tried to ask them about their perception of their height, an equal distribution of answers would be observed. The reasonable explanation of this fact was that when answering the question about the height, each compared his/her height with the height of the society he/she lived in (Easterlin, 1974).

Diener, Suh, Lucas, and Smith (1999) tried to investigate the influence of age, health, education, income, religion, marital status, job morale, gender, and the intelligence of respondents on happiness using the “top down” approach developed previously by Diener (1984). This approach was opposite in design to the “bottom-up” approach suggesting that if basic needs are met the person is happy. The “top down” approach incorporates a set of socio-economic variables to explain the happiness, whereas the “bottom up” approach was taking only basic demographic variables. The results of the assessment showed that only marital status, religion, and optimism were statistically significantly affecting happiness, whereas other variables such as gender, age, and self-esteem were highly dependent on culture and did not appear to be statistically significant determinants of happiness (Diener et al., 1999).

Frey and Stutzer (2002) attempted to identify factors affecting the happiness. Using Euro barometer Survey data, the study aimed to identify the determinants of happiness using a weighted ordered log it

method. The first group of socio-economic variables included age, gender, marital status, nationality, education, and health. The second group of economic factors included unemployment, income, and inflation. The third group of institutional factors included democracy level in the country and government decentralization. The results of the research revealed that age had a U-shaped effect on happiness, meaning that young and old people reported to be happier than middle-aged people. Women were found to be happier than men, couples were happier than single, divorced and widowed people. Foreigners were found to be less happy than the natives. Bad health conditions statistically significantly decreased happiness.

Regarding economic factors, three major factors were identified: unemployment statistically significantly decreased happiness, income was positively correlated with happiness within the country whereas the cross country comparisons faced the Easterlin Paradox and, finally, analyzing time-series data, inflation statistically significantly decreased happiness. The study found that democracy had a statistically significant positive impact on happiness.

Happiness was also analyzed by Di Tella and MacCulloch (2007). In their paper, they argued for the effectiveness of a classical approach of measuring the subjective well-being relying on income level, and suggested considering a more comprehensive indicator of happiness. They proposed a set of socio-economic determinants affecting the well-being of society besides income. The main focus of their paper was identifying the coefficient of correlation between inflation and unemployment. This would give an opportunity to predict the effects of fluctuations in those variables on the subjective well-being and offer proper policy recommendations for central banks. However, along with inflation and unemployment the estimated model contained variables describing personal characteristics such as employment status, income position, marital status, education, gender, age and age squared, as well as fixed effects of country and year. Their analysis was conducted employing Euro barometer Survey data and using an ordered profit regression model. The authors concluded that income, being a single measure of subjective well-being, was misleading and showed that it was highly correlated with inflation and unemployment, whereas if

happiness was estimated, the results might be more representative and robust. As well, the research of happiness could identify the channels through which the macroeconomic fluctuations affect happiness (such as income level, social status etc.). Thus, policies may be designed in a more directed manner (Di Tella & MacCulloch, 2007).

Stevenson and Wolfers (2008) tried to reassess the Easterlin paradox and show that the absolute value of income statistically significantly affected human happiness. However, except the absolute value of income, the authors proposed that there was a set of socio-economic variables affecting happiness. To that end, they controlled for the effects of age and age squared, gender, democracy, national laws, health, marital status, favorable weather conditions, increased savings, reduced leisure, materialist values etc. The model was estimated using an ordinal logit technique and Euro barometer Survey data. The results of the estimation showed that income was not only significant but also robust across countries, within countries, and over time. All the comparisons between poor and rich within a country, across countries and over time yielded the same result proving that absolute value of income does affect the happiness and subjective well-being of the society. Also, their research showed that health and marriage boosted happiness.

Johns and Ormerod (2007) tried to reveal a set of socio-economic variables that statistically significantly affected happiness. To accomplish that, they suggested incorporating increased leisure time, crime, infant mortality, longevity, unemployment, inequalities between sexes, and public spending into the model. They also considered variables suggested by literature, which included stable family life, marital status, income, health, religious faith, living in cohesive community where people can be trusted, and good governance. The research was conducted using correlation analysis. The results of the study identified that there were no significant correlations between happiness and income, income inequality, unemployment, or equality between sexes. A positive correlation was found between happiness and life expectancy, and with both the violent crime rate and property crime rates.

The present study is similar to some of the foregoing studies in that it aims to empirically identify a set of socio-economic variables affecting

happiness. However, unlike the foregoing studies, the present study conducts the happiness analysis for the South Caucasus countries, Armenia, Azerbaijan, and Georgia, augmenting the models used before by incorporating additional socio-economic variables.

### *Empirical Specification*

To identify the socio-economic variables influencing the state of happiness, a logistic regression model was estimated, where the binary dependent variable, which indicates whether the respondent is happy (=1) or not (=0), is modeled as a function of a set of socio-economic characteristics (variables). The empirical specification of the logistic regression model estimated in this study is as follows:

$$\log \left( \frac{happy_{ij}}{1-happy_{ij}} \right) = \beta_0 + \beta_1 capital_{ij} + \beta_2 urban_{ij} + \beta_3 female_{ij} + \beta_4 health\_fair_{ij} + \beta_5 health\_good_{ij} + \beta_6 debt\_types_{ij} + \beta_7 democ\_yes_{ij} + \beta_8 at\_least\_higher\_edu_{ij} + \beta_9 secondary\_technical\_edu_{ij} + \beta_{10} reempl\_yes_{ij} + \beta_{11} married_{ij} + \beta_{12} div\_sep\_wid_{ij} + \beta_{13} mony\_tot\_0\_250_{ij} + \beta_{14} religious\_yes_{ij} + \beta_{15} respage_{ij} + \beta_{16} hhsize_{ij} + u_{ij}$$

where,  $\log \left( \frac{happy_{ij}}{1-happy_{ij}} \right)$  is the natural logarithm of odds ratio of happiness of the  $i$ -th respondent from country  $j$  ( $j=1$  for Armenia,  $j=2$  for Azerbaijan, and  $j=3$  for Georgia),

$capital_{ij}$  is dummy variable for settlement type taking on 1 for capital and 0 otherwise for the  $i$ -th respondent from country  $j$ ,

$urban_{ij}$  is dummy variable for settlement type taking on 1 for urban areas and 0 otherwise for the  $i$ -th respondent from country  $j$ ,

$female_{ij}$  is dummy variable for gender taking on 1 for female and 0 otherwise for the  $i$ -th respondent from country  $j$ ,

$health\_fair_{ij}$  is dummy variable for health condition taking on 1 for fair health condition and 0 otherwise for the  $i$ -th respondent from country  $j$ ,

health\_good<sub>ij</sub> is dummy variable for health condition taking on 1 for good health condition and 0 otherwise for the *i*-th respondent from country *j*,

debtpers\_yes<sub>ij</sub> is dummy variable of personal debt taking on 1 if the respondent has a personal debt and 0 otherwise for the *i*-th respondent from country *j*,

democ\_yes<sub>ij</sub> is dummy variable for democracy taking on 1 if the respondent believes that his/her country is democratic and 0 otherwise for the *i*-th respondent from country *j*,

at\_least\_higheredu<sub>ij</sub> is dummy variable for education taking on 1 if the respondent has at least higher education and 0 otherwise for the *i*-th respondent from country *j*,

secondary\_technicaledu<sub>ij</sub> is dummy variable for education taking on 1 if the respondent has secondary technical education and 0 otherwise for the *i*-th respondent from country *j*,

reempl\_yes<sub>ij</sub> is dummy variable for employment taking on 1 if the respondent is employed and 0 otherwise for the *i*-th respondent from country *j*,

married<sub>ij</sub> is dummy variable for marital status taking on 1 if the respondent is married and 0 otherwise for the *i*-th respondent from country *j*,

div\_sep\_wid<sub>ij</sub> is dummy variable for marital status taking on 1 if the respondent is divorced or separated or widowed and 0 otherwise for the *i*-th respondent from country *j*,

monytot\_0\_250<sub>ij</sub> is dummy variable for monthly household income taking on 1 if the respondent has monthly household income of 0-250USD and 0 otherwise for the *i*-th respondent from country *j*,

religious\_yes<sub>ij</sub> is dummy variable for religion taking on 1 if the respondent is religious and 0 otherwise for the *i*-th respondent from country *j*,

respage<sub>ij</sub> is the age of the *i*-th respondent from country *j*,

$hsize_{ij}$  is the household size of the  $i$ -th respondent from country  $j$ ,

$u_{ij}$  is the random error term, and  $\beta_s$  are the parameters to be estimated.

The model was estimated using the STATA 10 software package declaring survey design for the dataset with **svyset** syntax. The dependent variable, happiness, was evaluated using self-anchoring striving scheme developed by Cantril (1965). The respondents were asked to evaluate their happiness on a 10-point scale taking 1 as extremely unhappy and 10 as extremely happy. To incorporate this variable into model, the scores from one to 5 inclusive were grouped together as unhappy and the scores from 6 to 10 inclusive were grouped as happy.

All the variables except age and household size entered the model as dummy variables, while age was measured in years and the household size was measured in the number of household members present in the family. First, by observing the statistical significance of the parameter estimates associated with independent socio-economic variables, key characteristics were determined. Then, by using the magnitudes of these parameter estimates, the percent change in odds ratios of being happy were calculated.

The parameter estimates associated with having good health, education, being employed, married, having more than 251 USD monthly household income, and being religious were anticipated to positively affect happiness, whereas personal debt and age variables were expected to negatively affect happiness. The sign of the parameter estimates associated with settlement type, gender, presence of democracy and household size can be either positive or negative.

### *Data Description*

To conduct the analysis, household survey data gathered by the CRRC's regional offices in Armenia, Azerbaijan, and Georgia within the framework of the 2013 CB survey were used. These data are available at

the CRRC-Armenia’s website and they contain all the necessary information to successfully complete the analysis. The sample used in this study contains information on Armenian, Azerbaijani and Georgian respondents who were at least 18 years old at the time when the survey was conducted. A total of 1,337 observations for Armenia, 1,488 for Azerbaijan, and 1,590 observations for Georgia were used in the analysis. The following sets of household socio-economic characteristics (variables) were analyzed: demographic factors including happiness, age, gender, settlement type, marital status, education and household size; economic factors including household income, employment status, and personal debt; situational factors including health condition and religiousness; and institutional factor examining the presence of democracy in the country.

Percentages of respondents by socio-economics characteristics for the three countries are shown in Table 1.

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	<b>Armenia, n=1337, %</b>	<b>Azerbaijan, n=1488, %</b>	<b>Georgia, n=1590, %</b>
<b>Happiness</b>			
<i>Happy</i>	60.82	66.97	64.94
<i>Unhappy</i>	39.19	33.03	35.06
<b>Settlement type</b>			
<i>Capital</i>	31.86	32.83	25.99
<i>Rural</i>	32.04	39.08	44.49
<i>Urban</i>	36.10	28.09	29.52
<b>Gender</b>			
<i>Female</i>	66.20	52.58	60.63
<i>Male</i>	33.80	47.42	39.37
<b>Healthstatus</b>			
<i>Fair</i>	45.38	32.29	40.99
<i>Good</i>	28.74	54.20	34.15
<i>Poor</i>	25.88	13.51	24.87
<b>Personal debt</b>			
<i>Yes</i>	50.01	35.28	41.03

<i>No</i>	49.99	64.72	58.97
<b>Presence of democracy</b>			
<i>Yes</i>	61.86	80.78	87.39
<i>No</i>	38.14	19.22	12.61
<b>Education</b>			
<i>At least higher education</i>	28.33	20.37	36.16
<i>Less than higher education</i>	41.57	63.42	37.90
<i>Secondary technical education</i>	30.09	16.21	25.94
<b>Employment</b>			
<i>Employed</i>	39.69	43.04	41.45
<i>Unemployed</i>	60.31	56.96	58.55
<b>Marital status</b>			
<i>Married</i>	64.17	71.56	60.89
<i>Single</i>	15.02	14.93	16.93
<i>Divorced/Separated/Widowed</i>	20.81	13.51	22.18
<b>Household income</b>			
<i>0-250 USD</i>	54.56	19.29	59.16
<i>251 USD and more</i>	45.44	80.71	40.85
<b>Religiousness</b>			
<i>Religious</i>	74.89	38.61	71.09
<i>Not religious</i>	25.11	61.40	28.91
<b>Age</b>			
<i>Age (average)</i>	46.73	42.96	49.45
<b>Household size</b>			
<i>Household size (average)</i>	3.81	4.22	3.49

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### *Demographic Factors*

As Table 1 shows, the respondents considering themselves to be happy constituted more than 60% in the three countries with Azerbaijan having the greatest percentage of happy respondents (66.97%) and Armenia having the lowest percentage of happy respondents (60.82%). For Georgian respondents, 64.94% considered themselves to be happy. For the settlement type, the respondents from Armenia had nearly equal distribution with urban respondents constituting the highest 36.10%, whereas the respondents from Azerbaijan and Georgia were mainly from rural areas with 39.08% and 44.49%, respectively. As far as Armenian respondents, females constituted 66.20%. In Georgia, the percentage of female respondents was 60.63% and in Azerbaijan 52.58%. In Azerbaijan, the respondents whose highest educational attainment was less than higher education constituted 63.42%, followed by Armenia (41.57%), and Georgia (37.90%). For Armenia, Azerbaijan, and Georgia more than 60% of respondents reported to be married with Azerbaijan having the greatest percentage of married respondents (71.56%) followed by Armenia (64.17%), and Georgia (60.89%). Age was a continuous variable ranging from 18 to 93. The average age of respondents was 46.73, 42.96 and 49.45 in Armenia, Azerbaijan, and Georgia, respectively. The average household size for all the three countries was approximately 4 persons.

### *Economic Factors*

Half of the respondents from Armenia had personal debts, whereas 64.72% and 58.97% of respondents from Azerbaijan and Georgia respectively, reported having no personal debts. Roughly 60% of respondents from all the three countries reported being unemployed with Armenia having the highest percentage of unemployed respondents (60.31%) followed by Georgia (58.55%) and Azerbaijan (56.96%). Most of the respondents from Azerbaijan reported a monthly household income of more than 251 USD (80.71%), whereas in Armenia (54.56%) and Georgia (59.16%) more than half of the respondents reported household income of up to 250 USD.

### *Situational Factors*

Slightly more than half of the respondents from Azerbaijan (54.20%) reported to have good health, whereas Armenians (45.38%) and Georgians (40.99%) had mainly fair health. For Armenian and Georgian respondents, 74.89% and 71.09%, respectively were religious, whereas in Azerbaijan 61.40% of the respondents did not consider themselves to be religious.

### *Institutional Factors*

As Table 1 depicts, most of the Georgians believed that they had democracy in their country (87.39%), with 80.78% of Azerbaijanis believing that they had democracy, and only 61.86% of Armenians agreed that there was democracy in Armenia.

### *Estimation Results*

#### *Cross Tabulations*

Before proceeding to our estimation results from the logistic model, the relationship between happiness and socio-economic variables in the three countries is discussed using the method of cross tabulation. The results of cross tabulations are presented in Table 2. The cross tabulation of happiness and socio-economic variables gives opportunity to draw the profile of a happy person for each country.

*A Happy Armenian.* A happy Armenian was an unemployed (56.16%) married (72.03%) female (65.82%) in her 40s with an average household size of four members, living in capital (34.77%), with less than higher education (41.94%), and with an average monthly household income of more than 251 USD (51.06%). Her health condition was evaluated as "fair" (44.84%), she did not have personal debt (52.74%), considered herself to be religious (79.18%), and believed that there was democracy in Armenia (63.71%).

*A Happy Azerbaijani.* A happy Azerbaijani was an unemployed (53.28%) married (76.52%) female (50.66%) in her 40s with an average

household size of four members, living in rural areas (38.46%), with less than higher education (59.30%), and with an average monthly household income of more than 251 USD (85.50%). Her health condition was evaluated as “good” (66.64%), she did not have personal debt (69.99%), did not consider herself to be religious (56.82%), and believed that there was democracy in Azerbaijan (85.33%).

*A Happy Georgian.* A happy Georgian was an unemployed (54.45%) married (66.08%) female (59.95%) in her 40s with an average household size of four members, living in rural areas (42.76%), with at least higher education (40.17%), and with an average monthly household income of up to 250 USD (50.51%). Her health condition was evaluated as “good” (42.26%), she did not have personal debt (59.52%), considered herself to be religious (76.51%), and believed that there was democracy in Georgia (89.05%).

Overall, it is obvious that a happy person has mostly similar characteristics across Armenia, Azerbaijan, and Georgia, perhaps because of many similar traditions and norms embedded in these societies as well as a common Soviet past.

### Logistic Regression

The logit parameter estimates, the associated p-values, and percent change in odds ratios are presented in Table 3. The results are interpreted in terms of statistically significant percent change in odds ratios, at the 1, 5, and 10 percent significance levels. Based on the p-value of the likelihood ratio  $\chi^2$  statistic, which is equal to zero for Armenia, Azerbaijan and Georgia, it can be concluded that all the parameter estimates associated with independent variables were jointly statistically significant.

In Armenia, living in the capital increased the odds of being happy by 39.31%, relative to living in rural areas, everything else held constant. In Azerbaijan, being a female decreased the odds of being happy by 25.15%, compared to being a male, everything else held constant. Having fair health, in Armenia, Azerbaijan, and Georgia, increased the odds of being happy by 50.9%, 71.66%, and 55.73%, respectively, compared to having poor health, everything else held constant. In Armenia, Azerbaijan, and

Georgia, having good health increased the odds of being happy by 229.99%, 614.99%, and 232.4%, respectively, compared to having poor health, everything else held constant. This result is consistent with the results obtained by Frey and Stutzer (2002) and Stevenson and Wolfers (2007).

*Table 1. Cross Tabulations of Happiness and Socio-Economic Variables*

	Armenia		Azerbaijan		Georgia	
	Happy (%)	Unhappy (%)	Happy (%)	Unhappy (%)	Happy (%)	Unhappy (%)
<b>Settlement type</b>						
<i>Capital</i>	34.77	27.34	31.28	35.96	27.91	22.42
<i>Urban</i>	33.06	40.83	30.26	23.70	29.33	29.87
<i>Rural</i>	32.18	31.83	38.46	40.34	42.76	47.71
<b>Gender</b>						
<i>Female</i>	65.82	66.79	50.66	56.49	59.95	61.90
<i>Male</i>	34.18	33.21	49.34	43.51	40.05	38.10
<b>Healthstatus</b>						
<i>Poor</i>	17.72	38.54	7.87	24.93	17.80	37.96
<i>Fair</i>	44.84	46.21	25.49	46.08	39.93	42.93
<i>Good</i>	37.44	15.24	66.64	28.98	42.26	19.11
<b>Personal debt</b>						
<i>Yes</i>	47.26	54.29	30.01	45.96	40.48	42.06
<i>No</i>	52.74	45.71	69.99	54.04	59.52	57.94
<b>Presence of democracy</b>						
<i>Yes</i>	63.71	58.97	85.33	71.57	89.05	84.31
<i>No</i>	36.29	41.03	14.67	28.43	10.95	15.69
<b>Education</b>						
<i>At least higher education</i>	30.56	24.88	23.31	14.39	40.17	28.75
<i>Less than higher education</i>	41.94	41.00	59.30	71.78	35.12	43.05
<i>Secondary technical education</i>	27.50	34.12	17.39	13.83	24.72	28.20
<b>Employment</b>						
<i>Yes</i>	43.84	33.25	46.72	35.60	45.55	33.84
<i>No</i>	56.16	66.75	53.28	64.40	54.45	66.16
<b>Marital status</b>						
<i>Single</i>	15.37	14.47	13.73	17.35	16.90	16.98
<i>Married</i>	72.03	51.99	76.52	61.52	66.08	51.26
<i>Divorced/Separated/Widowed</i>	12.60	33.54	09.75	21.12	17.01	31.76
<b>Household income</b>						
<i>0-250 USD</i>	48.94	63.28	14.50	29.01	50.51	75.16
<i>251 USD and more</i>	51.06	36.72	85.50	70.99	49.49	24.84
<b>Religiousness</b>						
<i>Yes</i>	79.18	68.24	43.18	29.34	76.51	61.04

<i>No</i>	20.82	31.76	56.82	70.66	23.49	38.96
<b>Age</b>						
<i>Age</i>	44	52	42	45	47	54
<b>Household size</b>						
<i>HH size</i>	4	3	4	4	4	3

Having a personal debt decreased the odds of being happy by 25.63% in Armenia, by 30.59% in Azerbaijan, and by 20.06% in Georgia, compared to having no personal debts, other things held constant. This finding is consistent with the result obtained by Thompson (2012). The presence of democracy turned out to be a statistically significant determinant of happiness only in Azerbaijan. Believing in the presence of democracy in this country increased the odds of being happy by 108.15%, compared to not believing in the presence of democracy, everything else held constant. This result is consistent with the result obtained by Johns and Ormerod (2007). Having at least higher education and secondary technical education in Azerbaijan increased the odds of being happy by 61.14% and 42.62%, respectively, compared to having less than higher education, everything else held constant. This finding is consistent with the one obtained by Diener et al (1999).

Being married increased the odds of being happy in Armenia by 118.75%, in Azerbaijan by 148.57%, and in Georgia by 91.59%, compared to being single, everything else held constant. This finding is consistent with the one obtained by Diener et al (1999). Having a household income less than 250 USD per months decreased the odds of being happy by 42.59% in Azerbaijan and by 49.89% in Georgia, compared to having a household income of more than 251 USD, everything else held constant. This result is consistent with the one obtained by Easterlin (1974). In Armenia, Azerbaijan, and Georgia being religious increased the odds of being happy by 83.15%, 88.29%, and 107.08%, respectively, relative to not being religious, everything else held constant. This result compares favorably with the finding obtained by Johns and Ormerod (2007). Regarding age, in Armenia, for each additional year of age the odds of being happy decreased by 0.97%, everything else held constant. The result is consistent with the finding by Diener et al (1999). Household size had a statistically significant effect

only in Armenia. For each additional household member, the odds of being happy increased by 8.98%, everything else held constant.

Gender, presence of democracy in the country, education, employment and household income variables were statistically insignificant determinants of happiness in Armenia. In Azerbaijan, happiness was not affected by settlement type, employment, age, and household size variables. Finally, happiness was not affected by settlement type, gender, presence of democracy in the country, education, employment, age, and household size variables in Georgia.

*Table 2. Estimation Results from Logistic Regression*

	ARMENIA		AZERBAIJAN		GEORGIA	
	Coefficient	% change in odds ratios	Coefficient	% change in odds ratios	Coefficient	% change in odds ratios
<b>Settlement type (base: Rural)</b>						
Capital	0.33** (0.047)	39.31	-0.19 (0.467)	-17.23	-0.11 (0.561)	-10.81
Urban	-0.01 (0.960)	-0.79	0.19 (0.412)	20.36	-0.12 (0.575)	-11.17
<b>Gender (base: Male)</b>						
Female	0.20 (0.160)	22.48	-0.29** (0.036)	-25.15	0.23 (0.102)	26.07
<b>Health status (base: Poor)</b>						
Fair	0.41** (0.013)	50.90	0.54** (0.019)	71.66	0.44*** (0.008)	55.73
Good	1.19*** (0.000)	229.99	1.97*** (0.000)	614.99	1.20*** (0.000)	232.40
<b>Personal debt (base: No)</b>						
Yes	-0.30** (0.019)	-25.63	-0.37** (0.030)	-30.59	-0.22* (0.063)	-20.06
<b>Presence of democracy (base: No)</b>						
Yes	0.11 (0.411)	11.84	0.73*** (0.000)	108.15	0.25 (0.144)	27.77
<b>Education (base: Less than higher education)</b>						
At least higher education	0.07 (0.676)	7.09	0.48*** (0.002)	61.14	0.24 (0.126)	26.69
Secondary technical	-0.22	-19.46	0.35*	42.62	0.15	16.26

<i>education</i>	(0.154)		(0.071)		(0.342)	
<b>Employment (base: NO)</b>						
<i>Yes</i>	0.07 (0.648)	7.19	-0.25 (0.120)	-22.15	0.10 (0.445)	10.55
<b>Marital status (base: Single)</b>						
<i>Married</i>	0.78*** (0.000)	118.75	0.91*** (0.000)	148.57	0.65*** (0.000)	91.59
<i>Divorced/Separated /Widowed</i>	-0.31 (0.250)	-26.47	0.20 (0.441)	22.64	0.06 (0.785)	5.75
<b>Household income (base: 251 USD and more)</b>						
<i>0-250 USD</i>	-0.13 (0.374)	-11.78	- (0.55*** (0.002)	-42.59	- (0.69*** (0.000)	-49.89
<b>Religiousness (base: No)</b>						
<i>Yes</i>	0.61*** (0.000)	83.15	0.63*** (0.001)	88.29	0.73*** (0.000)	107.08
<b>Age</b>						
<i>Respondent's age</i>	- (0.01*** (0.055)	-0.97	0.0007 (0.900)	0.07	-0.004 (0.299)	-0.44
<b>Household size</b>						
<i>Household size</i>	0.09** (0.011)	8.98	-0.03 (0.430)	-3.08	0.04 (0.271)	4.30
$\chi^2$	<b>10.95</b>		<b>15.68</b>		<b>9.81</b>	
<i>p-value</i>	<b>(0.000)</b>		<b>(0.000)</b>		<b>(0.000)</b>	

\*indicates 10% significance level, \*\* indicates 5% significance level, and \*\*\* indicates 1% significance level.

### Summary and Policy Recommendations

The aim of this paper was to identify a set of socio-economic variables that affected happiness in Armenia, Azerbaijan and Georgia. To that end, a logit model was estimated using the CB dataset collected by the CRRC in 2013. Also, using the method of cross tabulations, profiles of a happy Armenian, a happy Azerbaijani, and a happy Georgian were drawn up.

The log it estimation results revealed that in all three countries having a fair and a good health condition, being married and religious statistically significantly increased the odds of being happy, whereas having personal debts decreased it. A relatively low household income decreased the odds of being happy in Azerbaijan and Georgia. Living in capital, being young, and having more household members increased the odds of being happy in Armenia. In Azerbaijan, being male, believing in the presence of

democracy in the country, and having at least higher education and secondary technical education increased the odds of being happy.

The cross tabulation results identified that a happy Armenian was an unemployed, married female in her 40s, with an average household size of four members, living in capital, with less than higher education, and had average monthly household income of more than 251 USD. Her health condition was evaluated as “fair”, she did not have a personal debt, considered herself to be religious and believed that there was democracy in Armenia. The profile of a happy Azerbaijani was similar to that of a happy Armenian with the difference that a happy Azerbaijani lived in rural areas, her health was evaluated as “good” and she did not consider herself to be religious. Concerning a happy Georgian, again, it can be noted that the profile of a happy Georgian was similar to that of a happy Armenian with the difference that a happy Georgian had at least higher education and household income of up to 250 USD.

### *Policy Recommendations*

- Based on the estimation results, the following set of policy recommendations is proposed in order to boost happiness:
- Improve the living standards in rural areas in Armenia bringing them closer to the level in the capital city through rural development programs.
- Enhance the social status of females in Azerbaijan, possibly by facilitating female involvement in education, employment, health care and other social status boosting programs.
- Support the healthcare system and make it affordable for everyone in the society.
- Implement personal debt reduction strategies (e.g. provide low-interest loans, create additional employment opportunities).
- Strengthen and support the current democracy institutions in Azerbaijan.

- In Azerbaijan, expand the establishment of higher education and secondary technical education facilities and increase people's involvement in them.
- Promote marriages by providing affordable housing conditions to newly married couples.
- In Azerbaijan and Georgia increase household income through welfare programs.
- Promote religiosity and increase the role of religious institutions.
- In Armenia, improve living standards of the old by providing convenient nursing houses, cheap healthcare packages, convenient employment opportunities etc.
- In Armenia, promote and support having many children by providing social welfare packages to families.

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## **Business and Economics**

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# **Georgian Higher Education and Funding Model: Effects on Higher Education Efficiency and Stakeholders' Interests**

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*As we live in an extremely dynamic world, the importance of creating new knowledge and developing education has become vital. Higher education has to rapidly respond to the ever-changing conditions of the economy and the labor market. As resources are scarce, governments make continuous attempts to obtain maximal returns on investments in higher education. Georgia still needs to take important steps to get closer to European education standards. The aim of this research is to evaluate the effects and results of higher education reform in Georgia and particularly, its funding model. Under this research, the influence of the funding model on the stakeholders of higher education was observed. Furthermore, we examined whether funds spent on higher education by the public and private sectors are used efficiently, and does the higher education system serve the objectives of each interested party. Our research methodology includes reviewing scientific and legislative literature, analyzing statistical data and conducting interviews with involved parties.*

## *Introduction*

Higher education (HE) in Georgia is becoming more and more important, and society is beginning to realize its role in economic development and integration with Europe. Unemployment in Georgia and around the world puts the HE system under pressure to provide students with necessary knowledge and competences to adapt to growing competition on the labor market.

Higher education institutions (HEI) are under pressure to meet funding and regulatory criteria and to strengthen their market position at the same time. They have to find a creative balance between quality and capacity, financial viability and traditional values. On the other hand governments have to encourage excellence and equity.

Since 2004, the Georgian government introduced a new model of funding higher education. The voucher system was introduced to discourage corrupt practices in higher education institutions. Many types of higher education institutions, including those seeking profit would compete for students and their vouchers in the marketplace. Consequently, competition would lead to a greater range of choice and rising efficiency and innovation in education as HEIs had financial incentives to attract and maintain their enrollment. (Levin, 2000, pp. 3-4)

The objectives of this research are to examine the extent to which the voucher funding model serves the achievement of mission of The Ministry of Education and Science of Georgia. Furthermore, (Ministry of Education and Science of Georgia) government is not the only stakeholder of higher education; students, institutions, taxpayers, employers of graduates, society are interested parties as well. Another objective is to identify their interests. This research evaluates the dynamics of the effects the new models have on these stakeholders.

## *Georgian Higher Education and Funding Model: Effects on HE Efficiency and Stakeholders' Interests*

Vouchers are believed to be a very powerful means of demand-driven financing for the funding of the higher education. Students obtain vouchers from the government to buy educational services from the HEI

of their own choice. HEIs no longer receive direct government funding. To ensure their funding, HEIs will have to compete for students and consequently are believed to shift their focus from satisfying government bureaucrats towards the needs of their customers. In a voucher scheme, the providers of higher education are forced to be responsive to the needs and preferences of their customers (i.e. students, businesses). Vouchers are a way of funding education that can be described as input-oriented and at the same time demand-oriented. (Koelman & Jongbloed, 2000, pp. 5-8)

For the HEI the vouchers represent a certain value - they can be cashed at the Ministry of Education. Student is given a voucher of limited value, which can be used during a certain period of time and for programs of accredited education providers. In this funding system it is the consumer that drives the system - the system is believed to be demand-driven. (Koelman & Jongbloed, 2000, pp. 5-8)

The student decides what institution to attend and what programs to enroll in. The HEIs have to take care of the quality of their teaching and their supply of courses, because unattractive programs will not receive sufficient funding. (Koelman & Jongbloed, 2000, pp. 5-8)

Institutional Autonomy in Georgian Higher Education and its compatibility to the Lisbon Declaration

Based on The Lisbon Declaration of the Association of Europe's Universities "Governments are urged to endorse the principle of institutional autonomy so as to accommodate diverse institutional missions and to include academic autonomy (curricula, programs and research) financial autonomy (lump sum budgeting), organizational autonomy (the structure of the university) and staffing autonomy (responsibility for recruitment, salaries and promotion). Autonomy should be founded on adequate public funding and should also facilitate the strategic management of public and private income and endowments (from philanthropists, companies, alumni and students) by the universities themselves." (European University Association, 2007) Article VI. - 26

Organizational autonomy in Georgian higher education institutions is relatively high, as universities may elect and dismiss a rector, as well as

determine the academic structures. Higher education institutions can establish entrepreneurial and non-commercial legal entities (except Universities established as the Legal Entity of Public Law (LEPLs), yet, involving external members in governing is limited. (Zaalishvili, 2013, pp. 7-11)

Financial autonomy of higher education institutions is high only in terms of sustainability of public funding surpluses and borrowing money (except LEPLs). Only private universities have the freedom to establish tuition fee amounts. In terms of student enrollment the model of Unified Entry Examinations, where HEI cannot select students independently violates the principal of autonomy. (Zaalishvili, 2013, pp. 11-15)

Universities can independently select, dismiss and promote academic staff, and set up their salaries. In case of administrative positions only state universities are limited as the requirements for administrative positions are legally defined. (Zaalishvili, 2013, pp. 15-19)

Academic autonomy in HEI is independence and significantly limited. The language of instruction and quantity of students are regulated by the Ministry of Education and Science of Georgia. For the Bachelor's level, higher education institutes do not have the authority to evaluate applicants based on internal examinations. These factors violate the principle of autonomy. The authorization/accreditation approach is another means of governmental influence on university activities. For master's and PhDs' levels HEI have a right to conduct internal exams and interviews in student enrollment process, which gives them higher level of autonomy. (Zaalishvili, 2013, pp. 19-23)

The required annual self-evaluation for authorization and accreditation does not provide an accountability system to the public and university society, even though it gives HEI high levels of autonomy. (Zaalishvili, 2013)

The law includes a very general framework for HEI self-governance and the responsibility delegated to universities in order to guarantee academic freedom. Yet this authority is not monitored and regulated successfully. As a result, the academic freedom is not guaranteed (Zaalishvili, 2013, p. 27).

In conclusion, the core drawback is that the level of the autonomy in various organizational-legal types of higher education institutions varies. LEPLs are more limited in terms of autonomy, while private HEIs operate in a less restrictive environment. This factor is an obstacle for free competition between HEIs. (Zaalishvili, 2013, pp. 7-35)

### *Financial Issues of Funding HE*

In 2004, the Government of Georgia started fundamental reforms of the education system. The pre-reform funding model (direct funding) was the source of corruption in the admission process and misuse of state resources by the public universities. Direct funding was changed to student-related funding, which is more similar to European models. Student-related funding made the Georgian higher education system one of the most state-independent systems in Europe, but lack of state financial resources granted for the higher education still creates difficulties. (Chakhaia, 2013, p. 14)

The current funding model has important differences compared to European practices. First, state funding does not depend on the quantity of students at the HEI but on the quantity of students successful in the National Entry Examinations. Rest of the students cover tuition fees on their own. Second, the state covers the tuition fee only; other expenses related to studying are covered by students. The majority of funding is allocated based on the results of the National Entry Examinations. (Chakhaia, 2013, pp. 16-20)

According to the Law on Higher Education “Define under the submission Ministry of Education and Science of Georgia the amount and conditions of funding the education of students who enrolled for accredited higher education programs within the framework of social program under the submission Ministry of Education and Science of Georgia, which funding should not be less than 6% and more than 10% of the annual volume of state study grant funds”. (Parliament of Georgia, 2004, Chapter II, Article 6, 1.-c)

This funding is available to the children of victims of war, students living in occupied territories, the inhabitants of highlands and ecological

migration zones, etc. The number of students who receive funding is defined, and is allocated on the basis of scores on the National Entry Examinations. (Chakhaia, 2013, p. 16)

Compared to other priority budget sectors, since the early 2000s, state funding for higher education in Georgia has increased the least. The dynamics of higher education and research funding shows that the share of total funding slightly increased from 2000 to 2005, but has again declined in recent years. The decrease in research funding was particularly significant. According to data, between 2005 and 2011, the percentage of research funding in terms of GDP decreased twice from its original amount. (Chakhaia, 2013, pp. 12-13)

Similar to other post-Soviet countries, an unprecedented privatization of higher education funding took place in Georgia as well. The share of private funding is high in both state and private universities. The majority of students cover tuition fees themselves in both state and private universities. 64% of students completely pay for their own tuition fees, 49% of which attend state universities; the other 15% attend private universities. However, taking into account that about another 25% of students partially cover their tuition fees, one can see that among the post-Soviet countries, Georgia has the highest indicator of students paying their own tuition fees. (Chakhaia, 2013, p. 13)

Such a scarcity of state funding may negatively affect the accessibility of higher education, as well its quality. The lack of funding prevents universities from improving education quality, considering that the already scarce resources are mainly used to cover personnel salaries and other ongoing expenses. As for accessibility, the burden of financing higher education in Georgia mostly falls on private individuals - students and their families. Under these circumstances, it is likely that the current system of student funding provides funding for better-off students. (Chakhaia, 2013, pp. 8-11)

### *Effectiveness of the Georgian Model of Higher Education Funding*

To evaluate whether funding model is successful we need to identify key stakeholders of higher education (bachelor level). Firstly, the most obvious stakeholders are students as the funding model has a direct influence on their accessibility to higher education and consequently their employment. The second stakeholders are employers, who have their own demands for specific competencies and knowledge they need from graduates. The other most important stakeholders are government and society, as educational policy influences many aspects of the country's development and economic condition. Furthermore, HEIs are largely affected by the funding model, because it defines their revenues.

After stakeholders are identified, their interests that higher education funding model should help to fulfill need to be defined. Interests are grouped into four blocks: freedom of choice and accessibility, productive efficiency, equal opportunities for providers and social consistency.

As interests are recognized, we need to come up with the criteria that measure if those interests are met. Since interpreting the degree of interest fulfillment is highly subjective issue we would like to examine the dynamics of certain measures. As reform of higher education and its funding took place in 2004 the first students funded under voucher model graduated in 2009, the research mainly overviews effects of funding model from 2009 until 2013.

#### *Freedom of choice and accessibility*

Funding model should allow students to choose from varied institutions and programs. Students would have to be able to be mobile, and collect their credits from a wide set of programs and providers, without barriers between institutions. Financial support to students will guarantee equal access opportunities for all. Are all programs financed equally?

We evaluated dynamics of number of HEIs accredited, as number of available places for students and variety of institutions directly influences freedom of choice. We see that during these years there has not been an important change in public HEIs in terms of quantity. Students are able to choose from wide range of public, as well as private HEIs and programs.

Although, number of programs decreased in some universities, though concentrations (directions of particular professions) increased and were unified under one program. This fact was caused by HEIs attempts to decrease costs associated to accreditation procedures. As for private institutions, in 2010 many universities were closed, as they did not satisfy the minimum requirements for authorization. From 2012, we observed a tendency to increase the number of private institutions as well.

Another factor influencing the freedom of choice is mobility. Student can obtain a grant in both, public and private HEIs, therefore they have freedom to choose from all HEIs, and even after the choice is made, they can still change HEIs. Students are able to change their program (internal mobility) or HEI (external mobility). According to the law: “To encourage entrants and the mobility of students the following persons shall be allowed to enroll in a higher education institution without sitting Unified National Examinations commensurate with the procedure and timelines prescribed by the Ministry of Education and Science of Georgia” (Ministry of Education and Science of Georgia, 2004), Article 52.2-b.

Based on this law students have freedom of choice even after the enrollment to the particular program of HEI. Academic mobility – free movement of students and academic personnel to ensure the participation in learning, teaching and research activities both in Georgia and abroad, in accordance with Law of Georgia and the rules established by a higher education institution, what is followed by the recognition of qualifications or the education, credits acquired/accumulated during the study period; (Ministry of Education and Science of Georgia, 2004) Law of Georgia on higher education, article 2.

One of the main goals of Higher education is to encourage student’s mobility. Academic Council is responsible to promote mobility an integration of students in European Universities.

A higher education institution shall ensure: Equal treatment for all, regardless of one’s ethnic or social origin, gender, political or religious beliefs, etc.; (Parliament of Georgia, 2004) Article 16.-d

Any restriction on any ground such as race, color, language, sex, religion, political or other opinion, national, ethnic or social origin, property, birth

or other status, place or residence, citizenship, academic position shall be prohibited.

(Ministry of Education and Science of Georgia, 2004) Article 22-4

Ministry of education should identify reasonable voucher amount, as public universities will always strive to adjust to voucher (will not set tuition fee below voucher amount). This minimum tuition fee should be affordable for students not granted; therefore it should be compatible to average income of family in Georgia.

Due to statistical data average monthly income is 712 GEL (annually 8550GEL), tuition fee of bachelor degree in public universities is 2250GEL therefore average family can afford it. Consequently, even if student does not obtain voucher they can still meet the expense of higher education. After paying for education 6300 GEL is left to cover other expense (monthly 525GEL) which is higher than a subsistence minimum.

### *Productive Efficiency*

The government and the private sector invest money in higher education to support the economic growth of the country, developed job market and obtain qualified human resources, who will then generate profit. Providers should generate revenue at least enough to cover costs required to provide adequate education. Government's interest is that money spent for higher education should improve economic indicators such as employment and average income.

To evaluate compliance of higher education return and market requirements we can use return on education as a measure. "Return on Higher Education" (return on investment for higher education expenses) is a relation between spending on education (public and private) and public and personal benefits". Private return can be identified as individuals salary compared to expenses on higher education. The public return can be seen as state expenditure on higher education with income from employment. (Bregvadze T. , 2013, pp. 4-5)Based on statistical data we observe increase in employment of students and graduates, which is a very positive signal.

According to our research 28.5% of students admitted to higher education institution on the bachelor level do not graduate. Small part of them may have transferred to HEI abroad, but most part of them stopped their study. We can conclude that financial resources spent on higher education by the government and private sector is not used efficiently. Grants are given to the universities annually; therefore if a student stops studying in the first year of the studies, this amount of vouchers are considered wasted.

Based on the research (Bregvadze T. , 2013, p. 9) a person with a basic education has 50 percent less income than a person with a higher education. One of the most significant reason of hindering growth is that despite of having high education individuals do not have enough skills relevant to the labor market needs. Self-employment indicator is low as well. In Georgia only 25% of the population with higher education works within their professions. 50% of employed individuals think that the alumni competences do not meet their requirements.

The main reason for preventing the creation of new jobs is the low share of self-employed among the people with high education.

### *Equal opportunities for providers*

All types of the HEIs, public and private need to obtained authorization in order to be able to receive vouchers from students. The procedure for authorization is the same for public as well as for private institutions, thus they have equal opportunities.

Authorization – the procedure of obtaining the status of a higher education institution, that aims at ensuring the meeting of standards, necessary for the performance of relevant activities to issue the State-recognized educational documents;

(Ministry of Education and Science of Georgia, 2004)Article 2-b.

Accreditation serves as a regular self-evaluation of higher educational Institutions and promotion to create productive and usefull studying programs for Bachelor studens. These programs should provide high qualifications for graduating course students.

All providers should be in the same condition in terms of funding. According to 2013 data, distribution of students in public and private HEIs is 68% and 32% respectively, while distribution of grants given to public and private HEIs is 87% and 13%. Even though public and private HEIs are not considered to be direct competitors and places for students in public HEIs is more than in private HEIs, percentage difference still does not look proportional.

From 2004/2005 to 2005/2006 the number of students in public, as well as private institutions decreased by 60% (24645 students). Another decline in number of students was in 2008/2009 due the increase in number of school academic years from 11 to 12. In 2008/2009 only Russian school graduates and 2007 unsuccessful school graduates were able to enroll in the HEIs on the bachelor level. General dynamics after 2006 of number of students in all HEIs is positive, and is constantly increasing. Several reasons have contributed to this increase, including economic development of the country, but we think that grown accessibility to HE due to the Voucher model served as a major contributor to this increase.

We observe very strong positive correlation between the number of students in public and private institutions; therefore we can conclude that they are not direct competitors. The main reason for this is different tuition fees. Public universities tuition fee is 2250, while some private universities have tuition fees of 14000 and more, therefore they are focused on totally different segments. Private institutions state that they offer higher quality of education and therefore they set higher fees.

The correlation of number of students in public and private university based on programs is positive as well (0.956). Only exception is agriculture. This deviation was due to a single event; privatization of Agricultural University of Georgia. It caused dramatic decline in number of students on this program in public universities and proportionally even higher increase in private universities. As for Engineering, manufacturing and construction, these professions are not very demanded on the labor market, so very few private institutions offer these programs, because students are not willing to pay addition on voucher amounts. In public institutions students still apply for these directions, as government

considers these professions as priority and if student passes exams even with low scores, they still are funded fully.

### *Social Consistency*

The government has special social programs for HE funding, a separate budget for vulnerable groups. Defined under the submission Ministry of Education and Science of Georgia the amount and conditions of funding the education of students who enrolled for accredited higher education programs within the framework of social program under the submission Ministry of Education and Science of Georgia, which funding should not be less than 6% and more than 10% of the annual volume of state study grant funds; (Ministry of Education and Science of Georgia, 2004) Article6, c .

Citizens of Georgia, who until August 7, 2008 lived in the Russian Federation and were enrolled in recognized higher education institutions of this country, have a right to continue studies to a Georgian higher education institution without passing the United National Examinations, according to the rule set by the Ministry of Education and Science of Georgia. (Ministry of Education and Science of Georgia, 2004)

The number of students in each category (children of victims of war, students living in occupied territories, the inhabitants of highlands and ecological migration zones, etc.) is defined, and according to the regulations, in the case of heavy competition in any of these categories, the funding is still allocated on a meritocratic basis. In the academic year of 2012-2013, a total of 488 students were funded completely or partially.

While the funding of social programs has been increasing over the years, still the income of individuals with higher education does not differ with his/her family's well-being before admission to university. "The indicator of the poorest population's involvement in higher education is 9%, while that of the richest population is 38%. The share of young people with higher education is particularly high in the group where the older members of a family also have higher education (73%), as compared to those families where older family members only have general education (18%)". Despite the potentially large effects of upward social mobility, the role of higher education in equalization does not work properly, as there

still remains limited access to higher education for vulnerable groups. (Bregvadze T. , 2013, pp. 5-7)

As the government of Georgia sees regional development as priority, development of different fields in regions is important. One of the key drivers of the regional development is HE. As urban citizens do not usually strive to move to rural areas and have economic activity there, it is important that local population gain necessary knowledge and competencies to develop regional economic conditions. HEI in regions also represent a source of employment for local academic staff and other workers of these institutions.

After the reform of HE system and the introduction of a voucher funding model, HEI have to compete for students.

In the regions the number of potential and existing students is very low, HEI could not manage to cover fixed costs and invest in development, therefore most of them were forced to close down. Some regions are left without HEI at all, for example KvemoKartli. Statistical data shows that the number of HEIs dramatically decreased from 2006 to 2013, 38 private HEIs were closed and their employees were left without jobs. In 2011, the number of private HEIs decreased by 75 units, and the same year number of students in Georgia decreased by 16%.

### *Conclusion and Recommendations*

Interviews with the representatives of public and private HEIs, National Examination Center and ministry of Education, school graduates, students were held.

Public university employees claim that present funding model does not motivate HEIs to improve the quality of education, as grants are tied to students they are forced to concentrate on quantity. Even students that passed national examinations with lowest scores are admitted to public institutions. When students do not have the basic knowledge that they should have had obtained in school, institutions are not able to start teaching appropriate material, therefore quality suffers. Moreover, HEIs are not provided with additional funds for development and scientific activities. Public institutions prefer a block grant model, where funds are

given directly to universities and they decide how many students to accept. Representatives of Institutions claim that it would increase motivation to focus on quality rather than quantity.

The assumptions mentioned above are not fully objective, as we already have an evidence of block grant models' outcomes in soviet and post-soviet times, when corruption was a common practice in admission and study process in HEIs. Furthermore, the main advantage of voucher model is considered to be free competition among institution for students, and this should guarantee improvement of quality.

The voucher funding model is appropriate for the Georgian reality; despite some disadvantages it eliminates corruption and waste of financial resources. According to our interviews some experts and competent individuals in this field believe that the voucher funding model is not appropriate as HEIs will not have funds for activities as: research and development. It is possible to have mix of models; voucher funding model for study process and block grant model based on performance for science and research. Moreover, first year voucher for students might be identified by their results on national examination, while next year vouchers may be reviewed according to students' performance (e.g. grades, failed subjects, etc.), thus government will avoid funding unsuccessful students.

As representatives of NAEC claim, they also are not satisfied by the existing funding model and support the idea of public HEI employees' opinion. They named the same arguments considering present and alternative funding models. Although, they did not have any arguments about possible corruption under block grant model.

All the respondents mentioned that many school graduates and bachelor graduates continue their study to avoid army. They have little motivation to obtain knowledge and fail some subjects on purpose not to finish study, and government money is still spent on such students. As we see from statistical data, the number of students admitted to HEIs on bachelor level, compared to number of graduates increased dramatically. The reason to this could be greater accessibility to HE, but some part of it is surely due to above-mentioned issue.

Representatives of private institutions fear that if government returns to block grant model, they will lose government funding completely. They wish that government also funded scientific and research activities in public and private universities, as they should both have equal opportunities. They complain that they are in a worse position compared to public universities, as they have to find money for material resources such as buildings, while for public institutions these assets are provided by the government. This factor also jeopardizes the concept of equal opportunities for HE providers.

Although, the Ministry of Education requires accreditation and quality assurance, this procedure does not actually control quality, rather it is a bureaucratic process of checking the papers where institutions write self-evaluation report and rarely anyone checks the validity of these reports. Institutions spend financial and human resources in these useless activities.

HEIs are not obliged to have career centers and have communication with employers to ensure that education they provide is needed on the labor market (except of program accreditation process). HEIs are against any additional regulations by Ministry of education e.g. national graduation examinations, obligation of having career centers, etc.

The challenge is that human capital created in higher education system is not used in an effective way. Together with the growth of the government investment in higher education, additional measures for increasing return from higher education are important, for example: promoting compatibility of higher education with the market requirements, increasing access to higher education for vulnerable groups. It is vital to take into account real rates of return according to the education directions when subsidizing higher education. It will be useful to establish a new body at the Ministry of Education and Science of Georgia, which will be responsible for analysis of education return and employment indicators. HEI should have career development centers where they will gather information about employers' needs and help their graduates in employment. The Ministry of Education can also introduce rating system of HEIs based on performance indicators. HEIs should give graduates necessary competencies for self-employment. Encouragement of self-employment would decrease the unemployment rate.

Higher education can help reduce inequality between different social groups in terms of employment and income; yet, research shows that the involvement of socially vulnerable groups in higher education is low (Bregvadze T., 2013, pp. 4-11).

Georgia still needs to take important steps to get closer to European education standards. While the present model reduces some defects concerning corruption and quality standardization in HEIs, still many problems remain.

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List of Abbreviations

Abbreviation	Meaning
HE	Higher education
HEI	Higher education institution
LEPL	The Legal Entity of Public Law
OECD	Organization for Economic Cooperation and Development
THES	Times Higher Education Supplement
EU	European Union
NCEQE	The National Centre for Educational Quality Enhancement
NAEC	National Examination Center

# **Labor Market Outcomes in Georgia: The Effect of Education on the Probability of Participating in the Labor Force, Being Employed and Getting High Returns**

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*This research studies labor market outcomes in Georgia. The study concentrates on the effects of education on participation in the labor force, employment and salary level based on the Integrated Household Survey of Georgia for 2004-2009. Dprobit and OLS regression models are used for estimation. The key research findings are that education levels have a significant effect on the probability of an individual's participation in the labor force and being hired. However, the returns on education and on potential experience are low. In addition to education level, gender and the region where an individual lives play an important role in determining labor market outcomes and returns on education.*

## *Introduction*

Georgia is still in the process of transition. Even though the economy has been growing (on average 5.6%) during the last five years, the country still faces a high unemployment rate (14.6% in 2013). Hence, unemployment still remains one of the most serious socio-economic problems.

A question addressed by many scholars while working on employment/unemployment issues, is the education level of the labor force in the country of research interest. The higher the education level is, the higher the probability of employment should be. This should motivate the labor force to advance productive capacities and to participate in the labor market.

This research studies labor market outcomes in Georgia during the period of 2004-2009. It relies on the human capital theory and studies the effects of education on the labor force participation, employment and level of returns. The effects of family size, gender, marital status, health condition and the region where an individual lives are also taken into consideration.

This paper addresses the following research question: how does education affect the probability of an individual's participation in the labor force, being employed and earning high returns in Georgia? Based on the human capital theory and the country's specific characteristics, relevant hypotheses are derived and tested.

The research is based on the database generated from the Integrated Household Survey of Georgia. The National Statistics Office of Georgia conducted this survey. The data is cross sectional and covers the period of 2004- 2009.

### *Literature Review*

The role of education in the labor market has been widely studied in the literature during the last several decades. The theoretical as well as the empirical literature suggests that education has a considerable role in the labor market outcomes.

Before the human investment revolution in economic thought (Bowmen, 1966), education was considered to be a consumption good and demand for it depended on tuition fees, preferences, income and the ability to study. However, human capital theory (Becker, 1964) considers education to be an investment good. The costs of education includes the expenditures on studies in terms of tuition fees and the opportunity cost in terms of forgone income, which individuals would earn if they worked instead of studied. The benefits of attaining education include gained knowledge, increased productivity, higher probability of being employed and earning a high income.

The estimation of the rate of return on education started in the early sixties. Two waves of scholars are distinguished in the literature for estimating the rate of returns on education. The first wave of scholars (Blaug, 1992) estimate the rate of return using the “elaborate type” method, which compares costs of attaining the education to its future benefits. The second wave of scholars (Blaug, 1992) studies the rate of returns on education by estimating the earnings equation, which is the function of years of schooling, potential experience and experience squared.

Schultz (1963) and Becker (1964) started the first wave of empirical studies in the literature (Blaug, 1992). They used the “elaborate type” method for estimation. This method compares benefits of attaining higher education to costs forgone for attaining it (Schultz, 1961; Becker, 1964). According to this method, an individual should invest in education if benefits from education exceeds or equals to the cumulated cost of investment in education (Becker, 1964).

To find out the returns on education, the earnings of individuals, who attained higher education, are compared to the earnings of individuals who did not attain it (Schultz's, 1963; Becker, 1964). The difference between them will indicate the size of returns on education. Besides

education, ability, place of living, social class, age, family size, gender and wealth of an individual may affect on earning. Therefore, in order to isolate the returns on education the earnings of the individuals with different level of education in ceteris paribus conditions should be compared.

The second wave of studies started with the work of Jacob Mincer, who (1974) introduced earning function, where earning depends on years of schooling, potential experience and potential experience squared. Including potential experience in the equation is based on the assumption that work experience may contribute to upgrading skills of an employed individual (Mincer, 1974). Including experience squared in the equation imposes a restriction on human capital investment, meaning that 'the returns to on-the-job investments fall over working life, as the period over which they can be used becomes shorter' (Rosen, 1972).

To catch the effect of ability on returns to education, Griliches (1970) introduced interaction variable for schooling-ability in the model of earnings (Gronau, 2005). In this case the ability of an individual is controlled and the coefficient of education captures only the effect of education. Griliches' approach might solve the omitted variable bias problem, but finding a good proxy for ability is not always possible.

The rate of returns on education was estimated for various country cases in the literature. Cahuc and Zylberg in their book *Labor Economics* (2004) discuss the empirical results of the study of private returns on education in fifteen European countries during 1994-1995. The results report that one more year of schooling increases returns on education on average by 7.9% for women and 7.2% for men. The estimates differ within countries. For women education has the highest return in UK with a coefficient estimator of 11.8% and the lowest return in Sweden, with a coefficient estimator of 3.8%. Cahuc and Zylberg (2004) explain comparatively lower returns to education in Scandinavian countries by the existence of 'centralized collective bargaining', which negatively affects wages.

Bartolo (1999) studies returns on education in Canada, Italy and US. The model explains 23% of variations in earnings in case of US, 14% in case of Canada and 19% in case of Italy. The coefficient estimate for schooling varies from 4% to 7% in these countries, the coefficient of potential

experience is 3-4% and the coefficient estimate of experience squared is very small (0.1% – 0.07%) with a negative sign.

The comparative analysis of returns on education in Russia and Ukraine is also carried out (Gorodnichenko & Peter, 2004). As members of the former Soviet Union, they had a similar structure of wage, education system, labor force composition and returns to education before the collapse of Soviet Union (Gorodnichenko & Peter, 2004). The research is based on the Russian and Ukrainian Longitudinal Monitoring Surveys covering a period from 1985 to 2002. The authors estimate Mincer equation. The model includes years of schooling, potential experience, potential experience squared, as well as gender and capital  $\alpha$ . In case of Russia the model explains 18% of the variation of earnings, while in case of Ukraine -13%. The coefficient estimate for returns on education in the case of Russia is 9.5% and in the case of Ukraine- 4.5% (Gorodnichenko & Peter, 2004). In both countries returns on potential experience is low compared to the evidence from other countries, the indicator equals 3% in the case of Russia and 1.9% in the case of Ukraine. The gender gap is high. Women earn 41% and 47% less compared to men in Ukraine and in Russia respectively. Earnings of the individuals, who live in capital appears to be higher in both countries compared to the individuals who live in the other regions (Gorodnichenko & Peter, 2004).

There is a lack of literature on the labor market outcomes and the rate of returns on education or potential experience for the case of Georgia as well as for the cases of other the former Soviet countries, which experienced the same structural reforms as Georgia did.

### Data Description

The research is based on the database of the Integrated National Household Survey of Georgia. The data is cross-sectional and covers the period of 2004-2009. For research purposes the upper limit of age is set at 75, as in case of Georgia people usually do not retire when they reach retirement age.

### Methodology

The following hypotheses are tested in the research:

1. individuals with higher education degree are more likely to participate in the labor force of Georgia;
2. individuals with more years of schooling are more likely to be hired at the labor market of Georgia;
3. individuals with higher education degree are less likely to be self-employed;
4. living in urban areas increases the probability to participate in the labor market and being hired;
5. returns on education and experience are low in Georgia. This hypothesis contradicts human capital theory.

The following equations are estimated:

$$P(\text{part} = 1|X) = \Phi(\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 H + \beta_4 B + \beta_5 M + \beta_6 PHD + \beta_7 px + \beta_8 X + \varepsilon)$$

(1) where part (labor force participation) is a binary variable, with the outcome 1 if an individual participates in the labor market and the outcome 0 if not.  $\Phi$  is the cumulative function of the following standard normal variables:  $P_1$  – primary education,  $P_2$  – secondary education,  $B$  – bachelor's degree,  $M$  – master's degree,  $PHD$  – academic degree,  $px$  – potential experience, with three categories: low, considerable and high and  $X$  is the vector of the dummy variables, including male, married, capital, urban, year, chronic disease and metric variable family size, potential experience in square.

$$P(\text{hired} = 1|X) = \Phi(\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 H + \beta_4 B + \beta_5 M + \beta_6 PHD + \beta_7 px + \beta_8 X + \varepsilon)$$

(2) where **hired** is a binary one, with outcome 1 if an individual is hired and outcome 0 if an individual is not.  $\Phi$  is the cumulative function of the following standard normal variables: P1- primary professional degree, P2-secondary professional degree, H-high school, B -bachelor's degree, M-master's degree, PhD -academic degree, px - potential experience, and X is the vector of the dummy variables, including male, married, capital, urban, year, chronic disease and metric variables family size, potential experience squared.

$$P(\text{Selfeml} = 1|X) = \Phi(\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 H + \beta_4 B + \beta_5 M + \beta_6 PHD + \beta_7 px + \beta_8 X + \varepsilon) \quad (3)$$

where, dependent variable, self-employed, is a binary one, with outcome 1 if an individual is self-employed and outcome 0 if not.  $\Phi$  is the cumulative function of : P1- primary professional degree, P2-secondary professional degree, H - high school, B- bachelor's degree, M - master's degree, PhD-academic degree, px- potential experience, and X is the vector of the dummy variables, including male, married, capital, urban, year, chronic disease and metric variables family size and potential experience in square.

The next step is to study individual returns on education in Georgia. In order to answer the question, the Mincer equation (4) is estimated for the case of Georgia:

$$E(\text{Lnwagehired}|X) = \beta_0 + \beta_1 S + \beta_2 X + \beta_3 X^2 \quad (4) \quad (\text{Mincer, 1974})$$

where dependent variable is log of wage of hired individuals, as we wonder market returns on education. Log of wage is the function of S - the years of schooling, X - potential experience, which equals age- S- 6 and experience in square, which points that over time it has negative returns. Mincer equation is estimated by the ordinary least square regression (OLS). The hypothesis that the independent variables are jointly different from 0 is tested by the Wald test.

## *Results and Analyses*

### *Labor market outcome*

According to the criteria of the National Statistics Office of Georgia (Geostat), labor force participants are individuals '15 years old and above, who are working or are looking for a job and offer their labor for production of the services or products (Labor Force Statistics, 2009). Based on these criteria, the labor force participation rate in Georgia in 2009 is 66.3%, among them 16.9% of labor force participants are unemployed, 29.1% are hired, 54% are self-employed.

The country faces a high unemployment rate, but more alarming is the very high share of self-employed individuals among the labor force participants. The issue is that individuals in the self-employed category are either 'owners of the personal enterprises during the accounting period or individuals working for free in a family enterprise/holding' (Labor Force Statistics, 2009). The estimation shows that 72% of self-employed individuals do not generate any income. These are the individuals, who would like to get a regular job but because of a lack of job opportunities, they end up being self-employed in their own household or agriculture in and work for free. This means that even though these individuals are officially considered to be employed according to the Gestat (Labor Force Statistics), unofficially they are unemployed. Hence, the problem of unemployment is more severe in the country than official unemployment rate indicator shows.

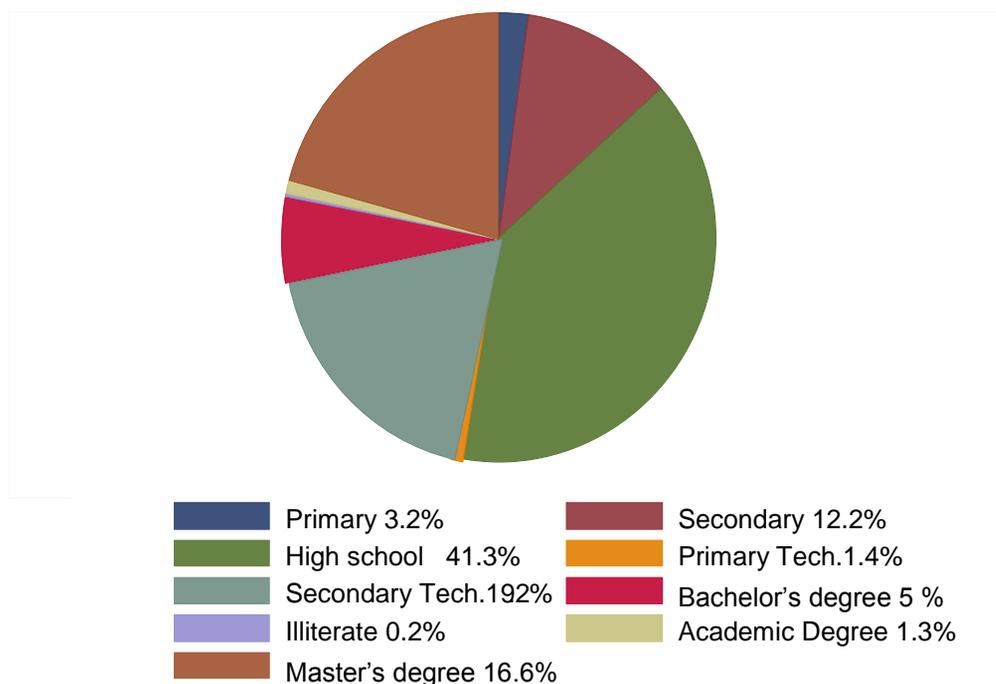
Table 1: the distribution of economic activity of the labor force by regions

Region	Kakheti	Tbilisi	Samcxe Javakheti	Adjara	Qvqartli	Shqartli	Guria	Mcxeta mtianeti	Samegrelo	Imereti
Unemployed	6.8%	38.6%	2%	12.5%	6.4%	6.7%	1%	2.3%	8.5%	15%
Hired	8%	40%	2.5%	8.7%	9%	5.2%	2%	2.2%	7.3%	15%
Self-employed	12.9%	6.3%	7.8%	9.3%	11.8%	7.8%	5%	2.2%	14%	22.2%

Source: calculations are based on the data of Integrated Household Survey of Georgia, 2009

The more populated the region, the higher the unemployment rate is in this region. Most of the unemployed people are living in the capital (Tbilisi) of the country and in the regions of the West Georgia: Adjara, Samegrelo and Imereti. Most of those individuals who are hired are living in Tbilisi, Imereti and Kakheti. Other regions face a lack of job opportunities.

The distribution of individuals by levels of education



The illiteracy rate in Georgia is close to zero (0.2%), which means that almost everyone in the country is able to read and write. The individuals, whose maximum level of education is below a high school degree, represent 15.5% of the population. The share of individuals, whose maximum level of education is high school level represent 41%. The share of individuals, who obtained a primary professional, secondary professional or higher education degree, is almost 44%, which means that the overall education level in the country is high.

Knowing that the education level in the country is high, it is interesting to observe the share of unemployed, hired, self-employed and non-participants in the labor market.

Table 2: the distribution of education by economic status

Employment Education level	Participants in the labor force			Non participants
	Unemployed	Hired	Self-employed	
High school	8%	10%	44.2%	37.8%
Primary professional	4.7%	10.7%	45.5%	39.1%
Secondary profess	11.5%	22.3%	39.7%	26.5%
Bachelor's degree	5.9%	24.5%	17.4%	52.2%
Master's degree	18%	44.4%	17.7%	19.9%
PHD	5.1%	15.1%	42.4%	37.4%

*Source: Integrated Household Survey of Georgia, 2009*

Among those, who completed high school or primary professional education, approximately 60% participate in the labor force and most of them are self-employed. The situation is different in the case of individuals with secondary professional education. They are mostly nurses, teachers for nursery school, primary school or music school,

mechanical engineers. The labor force participation rate in this group is high, but the majority of individuals with these degrees are self-employed. The participation rate in the group of individuals with Bachelor's degree is low. The reason for this may be negative expectations of individuals, that they can get a job even if they look for it. The participation rate is highest in the group of individuals with Master's degrees. The majority of individuals from this group are hired.

The results so far show, that in the groups with higher levels of education, the rate of participation in the labor market is higher as well. However, the group of individuals with PhDs deviates from this trend. In the group of individuals with PhDs, the nonparticipation rate is high as well as the rate of self-employment. The estimation shows that from this group among the individuals who are self-employed only 17% earn a salary. The explanation of this outcome may be that those individuals who are self-employed are working as private tutors and do not report their income. Unfortunately, the data does not give us the opportunity to study the reasons for such outcomes for PhD graduates in the country more deeply.

The estimation results of equation (1), equation (2) and equation (3)

In order to test the first hypothesis that the individuals with higher education degree are more likely to participate in the labor force, equation 1 is estimated by the robust dprobit regression. This hypothesis, as well as hypothesis 2, that individuals with higher education degrees are more likely to be hired are based on the human capital theory, that education as an investment has positive effect on the labor force participation, labor market outcomes and wages an individual gets for work performed.

Table 3: the results of estimation equation (1), equation (2) and equation (3);

<i>Variables</i>	<i>Equation (1)</i>	<i>Equation (2)</i>	<i>Equation (3)</i>
	<i>Participation</i>	<i>Hired</i>	<i>Self-Employed</i>
<i>High school</i>	.088 ** (.002)	.056 ** (.003)	.068 ** (.003)
<i>Primary professional</i>	.084 ** (.006)	.122 ** (.010)	.043 ** (.009)
<i>Secondary professional</i>	.163 ** (.002)	.174 ** (.005)	.024 ** (.004)
<i>Bachelor's degree</i>	.084 ** (.004)	.308 ** (.007)	-.092 ** (.005)
<i>Master's degree</i>	.263 ** (.001)	.353 ** (.005)	-.106 ** (.004)
<i>PhD</i>	.088 ** (.008)	.131 ** (.012)	.072 ** (.010)
<i>Potential experience</i>	.193 ** (.001)	.067 * (.001)	.141 ** (.002)
<i>Family size</i>	-.044 ** (.001)	-.016 ** (.001)	-.038 ** (.001)
<i>Male</i>	.171 ** (.001)	.039 ** (.001)	.080 ** (.002)

<b>Married</b>	.0006 (.003)	-.007 * (.001)	.064** (.003)
<b>Urban</b>	-.220 ** (.002)	.075 ** (.001)	-.357 ** (.002)
<b>Capital (Tbilisi)</b>	-.077 ** (.003)	.015 ** (.002)	-.196 ** (.003)
<b>Chronic disease</b>	-.195 ** (.002)	-.063 ** (.001)	
<b>Potential experience sq</b>	-.008** (.0001)	-.005* * (.00008)	-.086 ** (.003)
<b>Year dummies</b>	No	No	-.003** (.0001) No
<b>Wald chi2 (14)**</b>	52160.04	36089.13	54358.54
<b>Pseudo squared Log likelihood</b>	<b>R</b> 0.2053 pseudo-124138.22	0.19 -89535.08	0.22 -129285.74
<b>Observation</b>	<b>244494</b>	<b>244494</b>	<b>244494</b>

Notes: Robust standard errors in parentheses. \* Significant at 5%; \*\*significant at 1% .The reference categories are, primary education, female, not married, other regions of Georgia except Capital, individual without any of the chronic disease, low experience. He equation was estimated initially by including year dummies, but coefficients were insignificant. Than the year dummies were dropped and the estimation results reported on the table does not include the.

The first column of Table 3 reports the output of estimation of equation 1, the second column reports the estimation results of equation 2 and the third column reports the estimation results of equation 3. The number of observations is **244494**. The model is statistically significant at 5% as well as at 1% level and it fits the data. All coefficients except marital status are significant at 5% as well as 1% level. Each level of education has positive effect on the predicted probability of individual participating in the labor force. The size of effect is highest in the case of secondary education, which increases predicted probability of individual participating in the labor force by 16% and in case of Master's degree, which increases a predicted probability of an individual participating in the labor force by 26%. The variables of different education levels are jointly significant, pointing out that education has a positive and significant effect on the probability of an individual participating in the labor force.

The coefficient of potential experience is also positive and significant. It shows that considerable potential experience increases the predicted probability of an individual participating in the labor force by 19%, but potential experience in square points that over time the effect becomes negative. This can be explained by the fact that the more experienced an individual has the higher the chance is to get a job, which increases the incentive of an individual to participate in the labor force. But over time, with older ages the chances of getting job also decreases in Georgia, as in the market demand is mostly on the young labor force, who received education more recently, because the skills and knowledge of older individuals, who were educated during the Soviet period cannot meet the requirements of market demand.

The coefficient of males yields an interesting result. It is positive and significant and shows that in the case of males the probability of an individual participating in the labor market increases by 17%. One of the reasons of such gap between female and male groups can be the cultural factor, as men in Georgia are expected to care for his family as well as his parents in their old ages.

The coefficient of the variable urban has a negative and significant effect, as well as the coefficient of chronic disease. The size of both of these coefficients is high. However, the sign of coefficient of urban grabs the attention. It means that living in urban areas decreases the predicted

probability an individual participating in the labor force by 22%. This can be explained by the fact that, while the number of jobs is higher in urban areas, the competitiveness is also higher and it is difficult to get a job, besides the possibility of being self-employed is also low in the urban area compared to the rural ones. This decreases people's expectations of getting a job in urban areas, which may negatively affect on their incentive to participate in the labor force and look for a job.

To test hypothesis 2, that the individuals with higher education (more years of schooling) are more likely to be hired in the Georgian labor market, the equation (2) is estimated by the robust dprobit model. The results of estimation are reported in the second column of table 4.3. The outcome variable is higher, which is a binary variable (0/1), getting value 1 if an individual is employed at the labor market. Thus, the coefficients of independent variables predict the probability of an individual being hired in the labor market of Georgia. The Wald Chi square 36089.13 with a probability value of 0.0000 indicates that model is statistically significant at 5% as well as at 1% significance level and it fits better than model without independent variables. The standard errors are heteroskedasticity robust. The coefficient of each independent variable is significant at 5% as well as at 1% significance level.

The coefficient of each level of education is significant and positive, which means that each level of education has a positive effect on the predicted probability of individual being hired in the labor market. The higher the education level is the higher the size of coefficient of it is which means that the predicted probability of being hired at the labor market increases with more years of schooling. The exception is the coefficient of variable PhD, the predicted probability of being hired for an individual with PhD degree is 13%, which is even lower than the predicted probability of an individual with secondary professional degree being hired. This points to the fact that demand on PhD graduates is low in the country. This can be explained by the fact that the school for PhD programs in the country provide low quality education. Those graduates who complete PhD programs abroad rarely return to the country. The predicted probability of being hired in Georgian labor market for those individuals, who completed master's degree program is highest and equals 35%. The estimated results and testing the significance of variables of different education level give the

opportunity to accept the hypothesis 2 that the individuals with more education are more likely to be hired.

To test hypothesis 3, that individuals with more education are less likely to be self-employed, equation 3 is estimated using the robust dprobit model. The results of the estimation are reported in column 3 of table 4.3. The coefficient of the each independent variable predicts the probability of an individual with that characteristic being self-employed. The Wald Chi square 54358.5 with a probability value of 0.0000 indicates that model is statistically significant at 5% as well as at 1% significance level and it fits the data. The standard errors are heteroskedasticity robust. Coefficient of each independent variable is significant at 5% as well as at 1% significance level.

The estimation of equation 3 shows that the higher the levels of education are, the lower the probability of being self-employed is. In the case of high school degrees, the predicted probability of being self-employed increases, the same is the result for PhD graduates. This is a logical outcome in the sense that individuals with high school degree are mostly occupied in the casual work or working in their household or agriculture. As for the PhD graduates, this can be explained by the fact that they work as private tutor to prepare high-school graduates for university entrance exams or are involved in the independent research. The coefficients of Master's degree and Bachelor's degree are negative, which means that the predicted probability of individuals being self-employed decreases with a BA or MA degree.

The factors such as living in an urban area, in the capital of the country, poor health condition, have negative effect on the predicted probability of being self-employed. The size of coefficient of urban and size of coefficient of capital are high. The predicted probability of individuals being self-employed decreases by 35% if an individual is living in the urban area and the same indicator decreases by 19% if an individual is living in the capital of the country.

The estimations of equation (1), equation (2) and equation (3) give us the possibility to test hypothesis 4, whether the region where an individual lives plays an important role in determining an economic status of an individual. The predicted probability of an individual participating in the

labor force decreases if an individual lives in the capital or urban area. The predicted probability of an individual being hired increases if an individual is living in urban area or capital, but the size of this effect is not large. The predicted probability of being self-employed decreases significantly if an individual lives in urban area or in the capital. Such results allow us to accept hypothesis 4.

The results of the estimation of the Mincer equation

In order to answer the second part of the research question, about the returns on education in Georgia and to test hypothesis 5, that the returns on education and experience is low in Georgia, equation (4) is estimated. The results of this estimation are reported on the table 4:

*Table 4: the results of the estimation of the Mincer(1974) equation for the case of Georgia*

<b>Variables</b>	<b>Lnwagehired</b>
Schooling	.054**
Potential experience	(.001)
Potentialexperiencesq	
	003 *
Dummies	(.001)
Year	
Constant	-.023**
R squared	(.002)
	Yes
	4.329**
	(0.289)
	0.18**
F statistics	1242.24*
<b>Observations</b>	<b>40900</b>

Notes: Robust standard errors in parentheses. \* significant at 5%;\*\*significance at 1%;Including year dummies;

In order for standard errors to be heteroskedastisity robust, the equation (4) is estimated by the robust option of the ordinary least square model.

The coefficients are jointly significant, as F statistics 1242.24 with probability value.000 shows. The hypothesis whether the coefficients of independent variables are different from zero or not was tested by the Wald test, which reported that the coefficients of predictors are jointly different from zero. R square 0.18 with probability value 0.000 shows that the model is significant and fits with the data at 5% as well as 1% level of significance. The model explains 18% variation of wages, which is comparable to results in other countries.

The coefficient of schooling is significant at 5% as well as at 1% significance levels. The size of the coefficient tells measured impact of schooling on changes in wage rate, the interpretation of which is that one more year of schooling increases rate of wage by 5%. As we cannot control the ability, which may be the part of standard error, in order estimate of schooling be perfectly efficient, the Griliches (1970) approach, who estimated a potential bias of proxy of ability as being 10%, will be used and report the effect of education on wage as 4.5%. the result is comparable with the education estimate of the other developed as well as developing countries, which are discussed in the literature review section.

The coefficient estimate of potential experience is significant at 5% significance level. Potential experience square points to the fact that over the years wage rate will decrease. The size of effect of potential experience is very low in case of Georgia, compared to the developed countries, but it is similar to the former Soviet Union countries. The low effect of potential experience can be explained by the structural changes in the countries, which is followed by the change of market demand on the type of labor force.

In order to check the effect of other factors such as gender, family size, place of living (capital, urban), marital status and health condition of an individual, the corresponding variables are added to the Mincer equation and extended equation is estimated by the robust option of OLS. The results of the estimation of the extended Mincer (1974) equation are reported in table 5:

Table 5: The results of the estimation of extended earning equation for the case of Georgia

Variables	Ln wage hired
Schooling	.050**
Potential experience	(.001)
Potential experience squared	
Family size	.005**
	(.001)
Gender	
Married	-.027**
Urban	(.002)
Capital	
Chronic disease	-.052**
	(.005)
	.596**
	(.009)
	.017**
	(.010)
	.191**
	(.010)
	.311**
	(.011)
	-.131**
	(.016)
Constant	3.866**
	(.040)
Dummies	
Year	Yes
R squared	0.35*
F –statistics	1521.38*
<b>Observations</b>	<b>40900</b>

Notes: Robust standard errors in parentheses. \* Significant at 5%, significance at 1%; Includes year dummies;

The F statistic of 987.07 with probability value 0.000 indicates that the coefficients of independent variables in the extended Mincer model are jointly statistically significant. The errors are heteroskedasticity robust.

Adding the explanatory variables in the model resulted higher indicator of R square of 0.35 with probability value 0.000. Thus, the model explains 35% of variation of the wage rate, which can be considered reasonable taking into consideration that cross sectional data is used for analyses.

The measured effects of the predictors, which were included in the original Mincer equation, are the same. It appears that gender and place of living highly contribute in the variation of wage rate. The coefficient of gender is positive and statistically significant. The size of the coefficient is high, showing that being male increases rate of wage by 60%. The coefficient urban is also statistically significant and has positive effect on the wage rate. The size of coefficient is high, meaning that living in urban areas gives 19% higher returns compared to living in the rural areas. The size of the estimator of capital is also high. An individual return on living in Tbilisi, the capital of the country, is 31% higher compared to an individual return for those, who are living in other regions of the country. Thus, to sum up, in addition to education level and potential experience, gender, living in the capital or an urban area, have a significant effect on the variation of the wage rate.

The estimated effect of education on the wage rate in Georgia can be compared with the cases in other countries, as the estimated affect varies between 3-10% like it does in the reviewed literature. In order to determine whether a 4.5% return on education is low or not for the case of Georgia, it is important to know the wage levels in the country and the earnings of individuals with different levels of education. For this reason, the share of low, medium and comparatively high-income earners is estimated for the different education groups. The sample includes the individuals, who are hired in the labor market, because it shows the level of market wage in the country. The three wage categories are distinguished. The category, monthly income below 200\$, represents a low wage group, which includes the individuals, who earn below the 50% of the average wage in the country. The wage group \$200-\$500, covers the individuals, who earn the range of 50% up and 50% below of the country's average wage and the third group includes the individuals, who earn above the average wage plus 50% of average wage. The graph 5.3 provides the results of the estimation the distribution of wages by the levels of education:

Graph 2: The distribution of education level by wage groups in the labor market



Based on the database of Integrated Households Survey of Georgia

The results on the Graph 2 report that the individuals, who earn below the \$200 has the highest share in each education group. The share of individuals with middle and comparatively high wages is higher in the higher education groups. The share of individuals with comparatively high earnings is higher in the Master’s degree group compared to the other groups, but the indicator itself is low even for this group, showing that only 13% of individuals, who have master’s degree, earn income

above an average wage+50% of average. Based on the results reported in graph 4.2, we can conclude that wage levels in the country are low even for individuals who have higher education. Thus, if the return on education for one more year of schooling is 4.5%, as it is predicted by the estimation of the Mincer equation, such change will not change an individual's wage level much.

Hence, to sum up the results of the estimation of the Mincer equation and results reported on graph 5.5, education does not have high returns in Georgia. One explanation of this issue can be that the quality of education is low in the country and the labor force does not satisfy the demand from the labor market. The other issue is that the wages paid in the labor market of Georgia are low.

### *Conclusion*

This research provides interesting findings. Overall education levels in the country are high, as the estimation shows almost 85% of individuals have high school and higher education degrees. Still the unemployment rate is high in the country, it has increasing trend during 2004-2009 and achieved 16.9% in 2009. Among the employed individuals, the category of self-employed is alarming. It represents more than 50% of the labor force. Besides the individuals who have small businesses, this category includes mostly the individuals, who live in the rural areas and because of a lack of job opportunities are occupied working in their households or subsistence agriculture. That is why 72% of self-employed individuals do not have any earnings. This makes the problem of unemployment more severe than the official picture shows us, as those individuals are considered formally as employed but their state more suits to the state of unemployed individual. Considering such self-employed individuals in the employed category contributes also to the lower indicator of unemployment rate in the regions compared to the capital. The unemployment rate in the capital approaches 40% and the indicator is high also in the western Georgia.

The paper estimated separately dprobit models for probability of participating in the labor force, for the probability of being hired and for the probability of being self-employed. All the models fit the data. The

estimation results show that the predicted probability of an individual participating in the labor market increases with the level of education. The highest effect has master's degree, which increases the predicted probability of participating in the labor force by 26%. The predicted probability of an individual being hired increases with education level. The bachelor's as well as master's degree has a significantly high effect in this case, the former increases the predicted probability of an individual being hired by 30% and the latter by 35%. The predicted probability of an individual being self-employed is low for more educated people. Based on the estimation results, hypothesis 1, the hypothesis 2 and hypothesis 3 were accepted.

The estimation of the Mincer equation shows that returns on education as well as on experience are low in Georgia as it was expected. The corresponding indicators are 4.5% in the case of education and 2% in case of potential experience. The issue is that quality of education in the country is low. Because of structural changes, which have taken place during the last two decades in the country, the labor market demand and labor supply diverged and are not matching well. One more explanation of such outcome can be that overall wage level in the labor market of Georgia is low, only 8% of hired individual get the wage above \$500, which is a very small number.

One more interesting finding is the effect of gender and region where an individual lives, on the labor market outcomes. The males are more likely to participate in the labor force, being hired and being self-employed. Besides, the wage rate for male individuals increases by 60%. These gender gap points to the discriminatory character of Georgian labor market. In determining economic status of individuals, the regional variable plays an important role. Individuals living in the urban areas are more likely to be hired in the labor market, individuals living in the rural areas are more likely to be self-employed. This can be explained by the fact that rural areas face a lack of job opportunities, thus the chances of being employed in the former sector is very low, that is why in order to "survive" individuals have to be self-employed.

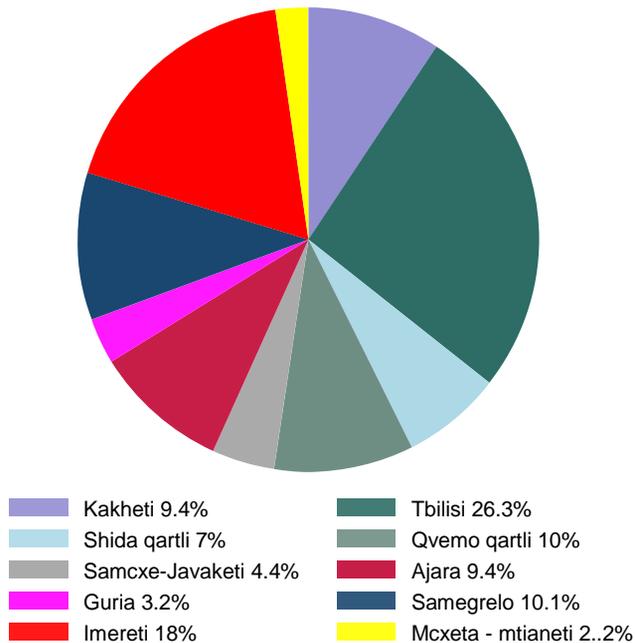
Finally, it can be concluded that overall effect of education on labor market outcome is positive and statistically significant, from this point of view there is a link between the theory of human capital and real evidences in

the country. Individual with higher education have better chances in the labor market compared to the individuals with lower level of education, but still the returns are very low.

Due to data limitations, including the variable of ability in the survey was not possible. The possible continuation of the research is doing instrumental variable estimation of returns on education in Georgia, by using the date of birth of an individual as a proxy for ability.

*Appendix A*

Graph A.1: The share of population in the regions of Georgia in 2009



Estimation is based on the database of Integrated Household Survey of Georgia

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## **Public Health and Psychology**

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### **Smoking Behavior Prevention in Adolescents**

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*This research paper seeks to address a major social problem among Georgian youth, tobacco use.*

*The tobacco epidemic is one of the most important and urgent public health challenges facing governments and civil societies around the world. The cycle of tobacco dependence typically begins with the initiation of tobacco use during adolescence. The average age of tobacco use is age before 20; people start smoking before 20 years of age. This research was based on the Unified Theory of Behavior Change. A unified theory of adolescent risk behavior was explicated that integrates five major theories of human behavior. The theory emphasizes intentions to perform behaviors, knowledge and skills necessary for behavioral performance, the salience of the behavior, environmental constraints and facilitators, habit and automatic processes, expectancies, social norms, self concept and image considerations, self efficacy and emotions and affective reactions. Data were collected from 300 adolescents from Georgian schools in Tbilisi, Georgia. Results were calculated using SPSS.*

According to research conducted in 2014 year, from 300 adolescent respondents 100 female and 200 male, 70 percent of male adolescents and 40 percent of female adolescents smoke. The adolescent smoking rate remains unacceptably high. This research shows that 40% of respondents, both smokers and non-smokers think that those who smoke cigarettes will smoke marijuana too and also, as research has shown, 37% of cigarette smokers smoke marijuana regularly, several times in a week. This data gives us a strong argument to say that smoking cigarettes may lead to drug addiction and that cigarette smoking itself can increase the rate of cancer and various illnesses among adolescents. The social and health consequences of adolescent tobacco use have been well documented in Georgia. In 1997, 1100 smokers had lung cancer; 1300 – other types of cancer, 9000- bronchitis; 13000 –respiratory diseases, and 105.000- heart diseases. In 1998, 800 people died because of smoking, which accounts 21% of all deaths. The Unified Theory offered by the American National Institute of Mental Health seeks to determine reasons why adolescents begin to smoke. This data then will be used to help devise messages and create strategies to reduce the number of adolescent smokers, and thus reduce mortality and cancer rates among adolescents.

### *The Unified Theory of Behavior*

The National Institute of Mental Health (NIMH) sponsored a workshop to develop a common theory. The core variables of the model are organized into two sequences. The first sequence focuses on the immediate determinants of behavior and is illustrated in Figure 1. Behavior is influenced by five core variables. First, an individual must intend to or be willing to perform the behavior for the behavior to occur. Unless the individual intends to enact the behavior or is willing to do so, it is unlikely that they will actually perform the behavior. There is a large empirical literature that supports the idea that a person's intention to perform a behavior is a strong predictor of future behavior (Ajzen, 2009). Despite the above-mentioned claim, it is not always the case that an individual's intention to perform a behavior translates into the behavior. Sometimes people do not do what they intend to do. The other components of the theory in Figure 1 are intended to account for this.

According to Figure 1, in order for a person's intention to translate into behavior, the individual must have the requisite knowledge and skills to enact the behavior. Even if one has decided to perform a behavior, if the individual does not possess the ability and skills to do so, then behavioral performance will not result. Second, there must be no environmental constraints that render behavioral performance impossible. To the extent that there are environmental facilitators as opposed to inhibitors present, then the intention will be that much more likely to translate into behavior. Third, the behavior must be salient to the individual so that the person does not forget to enact it. For example, many people intend to take their medications on a given day, but simply forget to do so. Finally, habitual and automatic processes may influence behavior. For example, by force of habit, a person might drive the same route to work even though he or she intended to drive a new route.

These five variables interact in complex ways to determine behavior. In general, a positive behavioral intention is a necessary but not sufficient condition for behavioral performance to occur. Behavior is most likely to occur when each of the variables coalesce toward behavioral performance.

The second aspect of the framework focuses on the determinants of an individual's willingness, intention, or decision to perform a behavior. There are five major factors that serve as the immediate psychological determinants of one's decision to perform a behavior and these are illustrated in Figure 2. The focus of the present research is on the constructs in this Figure, so we discuss each in turn.

### *Beliefs and Expectancies.*

Beliefs and expectancies refer to an adolescent's perceived advantages and disadvantages of performing the behavior in question. Any given perceived advantage or disadvantage has two components. First, there is an *expectancy*, which refers to how likely the individual thinks it is that performing the behavior will, in fact, lead to the advantage or disadvantage in question. The second component is an *outcome evaluation*. This refers to how positive or negative the advantage or disadvantage is perceived as being. Adolescents perceive multiple advantages and

disadvantages of performing a behavior. For each of the consequences potentially associated with a behavior, there is expectancy and an outcome evaluation for each. The decision or intention to engage in a behavior will be some function of these multiple expectancies and outcome evaluations (Ajzen, 2009).

Psychologists and decision theorists are in disagreement about the nature of the function relating expectancies and outcome evaluations to behavioral decisions. As a general rule, individuals will be more likely to decide to perform a behavior if they perceive it as definitely leading to highly positive consequences and definitely not leading to negative consequences. Individuals will be less likely to decide to perform a behavior if they perceive it as definitely leading to highly negative consequences and definitely not leading to positive consequences (Ajzen, 2009).

### *Social Norms*

*A second class of variables relevant to the analysis of behavioral intentions is social norms. Two types of normative influence can contribute to social pressures to perform a behavior, injunctive norms and descriptive norms (Cialdini, 2003). Injunctive norms encompass perceptions of behavioral approval or disapproval of different referents, such as one's mother, one's father, or one's boyfriend or girlfriend. For a given behavior, there are multiple referents who may be salient to the adolescent and these referents can have conflicting opinions. The overall normative pressure to perform the behavior is some function of these differing opinions.*

The second type of normative influence, descriptive norms, refers to perceptions of how many of one's peers are performing the behavior. Rather than focusing on approval/disapproval, descriptive norms focus on perceived behavioral base rates (e.g., most of my friends are smoking). There are different base rates for different referent groups. For example, the perceived base rate for one's circle of friends might differ from the perceived base rate for peers in one's grade at school. The overall base rate factor, BRF, is represented by a combination of these multiple base rates. The psychological literature on base rates is complex: Sometimes higher perceived base rates lead to increases in

behavioral intent, and sometimes lower base rates do. A useful theory for understanding the impact of base rates on behavior is Deviance Regulation Theory (Blanton, 2001). Despite this complexity, numerous studies have implicated the potential importance of perceived behavioral base rates and these have been found to be only slightly to moderately correlated with measures of injunctive norms.

### *Self Efficacy*

A third class of variables relevant to behavioral decisions is that of self efficacy, or the extent to which adolescents feel they can be successful at performing the behavior if they decide to try (Ajzen, 2009). The primary determinants of a global judgment of self-efficacy are perceptions of the obstacles that impede behavioral performance and one's judged ability to overcome those obstacles. Individuals may perceive multiple obstacles. Associated with each obstacle is a belief that the obstacle can be overcome. The overall judged self-efficacy is some combination of these perceptions. In general, people will be less likely to decide to perform a behavior if they do not think they have the ability or means to do so.

### *Self Concept*

Adolescents tend to be concerned about the images that they project to others. Adolescence also is a time when youth are actively involved in identity formation. Adolescents want to carve out and transition to an adult identity that they can embrace and that is positively viewed by others. We conceptualize self-concept and image based considerations using the framework of social prototypes (Myers, 2012). Social prototypes refer to images that individuals have of the kind of person who performs the behavior in question (e.g., the image of the kind of person who smokes). Of interest is how positively or negatively this image is perceived as being. In general, the more positive the image is perceived as being, the more likely it is the adolescent will perform the behavior.

The impact of image positivity of the prototype should be qualified by the adolescent's self esteem. The lower the self esteem of adolescents, the more they will be motivated to enhance their image by performing a behavior that projects a positive image. Thus, we predict an interaction between self esteem and the perceived positiveness of the image projected by the behavior in question: As self esteem decreases, the impact of perceived image positivity on decisions to perform the behavior should increase. (Myers, 2012)

### *Affect and Emotions*

The important role that emotions have on adolescent decision making has become increasingly recognized in recent years (Myers, 2012). Whereas many of the previous variables are cognitive-based, this class of variables emphasizes the affective aspects of behavioral decisions. Emotions typically are viewed as constructs distinct from mood states and more stable affective conditions, such as depression. Emotions tend to be more intense and more short-lived. Many theories of emotion emphasize two core facets, the degree of arousal and the affective direction of that arousal, positive or negative (Myers, 2012). In general, individuals who have a strong negative emotional reaction to performing a behavior will be less inclined to do so and those who have a strong positive emotional reaction to performing a behavior will be more inclined to do so (Niedenthal, 2006).

In sum, how do adolescents decide to perform a behavior? According to Figure 2, they do one or more of the following: (1) they think about the advantages and disadvantages of performing the behavior; (b) they consider the normative pressures to perform the behavior, including whether important others approve or disapprove of their actions as well what their peers are doing; (c) they take into account their ability to perform the behavior and the obstacles that may impede behavioral performance; (d) they consider the social images they will project if they perform the behavior; and (e) they consider how the behavior "feels" to them emotionally and affectively. Not all of these factors are considered for all decisions. Sometimes only a subset of them are taken into account. Some decisions are driven solely by emotions, others solely by what

important others think the adolescent should do, or various combinations of one or more of the factors. Nor are adolescents viewed as deliberately and thoughtfully considering the above factors each time they are faced with a choice. Rather, somewhat crude, psychological summaries of these constructs reside in memory that can be activated instantly and without conscious thought.

Even if an adolescent makes a decision to perform a behavior, the decision will not necessarily translate into behavior. Using Figure 1, whether the decision translates into the behavior depends on (f) whether the adolescent has the knowledge, skills and abilities to perform the behavior, (g) the environmental constraints and facilitators operating to impede or facilitate behavioral performance, (h) the salience of the behavior to the adolescent and the behavioral cues to action and (i) habit strength and automatic processes.

#### *Generalized versus Situation Specific Influences*

When an adolescent is considering smoking, there are a set of generalized perceptions that impact the action the adolescent decides to take and there are situation-specific perceptions that augment or alter these generalized perceptions. For example, an adolescent may, in general, be negatively disposed toward smoking, but the specific situation in which she finds herself may lessen that disposition somewhat by her seeing situation-specific advantages of performing the behavior. The “generalized” perceptions the adolescent brings to a situation derive from previous experiences in similar situations, observational learning, and information from peers and other sources. Such perceptions can be readily targeted by behavioral interventions. The situation-specific perceptions are more difficult to impact because they tend to be idiosyncratic to each situation. The variables in Figures 1 and 2 can be thought of as having both a general, relatively stable component as well as a more transitory, situation-specific component. Ideally, one can address both when trying to predict and understand behavior, although often it is only possible to assess generalized perceptions. Generalized perceptions are important because they can be

readily targeted in intervention programs and can exert considerable influence on behavior. The present research focuses on such perceptions.

### *Method*

Quantitative research methods, namely direct interviews technique was used for research on Georgian adolescents.

### *Respondents*

The respondents included 300 adolescents recruited from grades 10 and 11 from six different middle schools in Tbilisi, Georgia. 100 of them were female and 200 were male.

### *Measures*

Measures were collected using questionnaires. The content of the measures was based on a pilot study of 83 adolescents representative of those in the main study. The pilot study adolescents were interviewed with open-ended questions. It encompasses both qualitative and quantitative research.

### *Behavioral Intentions*

Behavioral intentions to smoke were assessed based on responses to three statements, each using a five point agree-disagree scale. The items were (1) I think I am ready to smoke, (2) I would smoke now if I had opportunity, and (3) I plan on smoking in the next six months. The scale metric was 1 = strongly disagree, 2 = moderately disagree, 3 = neither agree nor disagree, 4 = moderately agree and 5 = strongly agree.

### *Expectancies*

Adolescents responded to statements using the same 5 point agree-disagree scale. Example items include (1) If I smoke at this time in my life, I would feel more "grown up," (2) If I smoke at this time in my life, I would be more popular, (3) If I smoke at this time in my life, it would be morally wrong, (4) If I smoke at this time in my life, it would interfere with school, and (5) If I smoke at this time in my life, it would harm my health.

### *Social Norms*

To assess descriptive norms (base rates), respondents were asked to name how many same sex close friends they had and then to estimate how many of these friends were smoking. From these answers, the proportion of close friends who had smoked was computed. If a respondent reported having no close friends, the proportion was set to zero. Injunctive norms were assessed by asking respondents to rate how strongly specific referents would approve or disapprove of them smoking at this time in their life, using a five point scale from 1 = strongly disapprove, 2 = moderately disapprove, 3 = neither, 4 = moderately approve and 5 = strongly approve. The referents were (1) mother, (2) father, (3) friends, (4) best friend, (5) boyfriend or girlfriend, and (6) a relative other than one's parents. If a referent was not relevant (e.g., father, boyfriend/girlfriend), the respondent was instructed to skip the item.

### *Self Concept*

The prototype of an adolescent who smokes was assessed by asking respondents to indicate their agreement or disagreement (on a five point scale) with statements about "girls" (or "boys" in the case of male respondents) who smoke. The statements were (1) Girls who smoke are confused about what is right and wrong, (2) Girls who smoke are popular with other girls, (3) Girls who smoke are popular with the boys, (4) Girls who smoke are more "adult" than other girls, and (5) Girls who smoke are irresponsible. An overall evaluation of the prototype was

obtained by asking respondents to respond to the following item on a five point negative to positive scale: “Overall, my impression of girls who smoke is....”

Self esteem was measured using a short version of the classic Rosenberg self esteem scale. Rosenberg (1965) reported a test-retest reliability coefficient equal to 0.93, while Fleming and Courtney (1984) report a test-retest correlation of 0.82 and a coefficient alpha of 0.88. Convergent and predictive validity of the Rosenberg measure of self-esteem has been reported by Baker and Gallant (1984) and by Demo (1985). We identified five items for use in a short form version. They are (1) On the whole, I am satisfied with myself; (2) All in all, I am inclined to feel that I am a failure; (3) At times I think I am no good at all; (4) I certainly feel useless at times; and (5) I take a positive attitude toward myself.

### *Self Efficacy*

Self efficacy was measured using three items, each responded to on a five point agree-disagree scale: (1) It would be easy for me to smoke if I wanted to, (2) If my friend was pressuring me to smoke, it would be easy for me to say no.

### *Affect and Emotion*

Four emotional reactions were assessed, each using a five point agree-disagree scale: (1) When I think about smoking, I feel scared, (2) When I think about smoking, I feel nervous, (3) When I think about smoking, I feel happy, and (4) The thought of smoking cigarettes is disgusting.

### *Results*

Results were obtained using descriptive statistics and regression analysis. In Georgia, 70 percent of male adolescents and 40 percent of female adolescents smoke. Among the factors reviewed in our research, the highest correlation has been observed between smoking behavior and self-efficacy. This means that adolescents get cigarettes whenever

they want. It was also observed that there is a high correlation between smoking and adolescent expectancy that cigarettes serve as a means to enjoy and achieve a certain level of popularity. Finally, it was also found that adolescents do not think that smoking will seriously harm their health.

The regression analysis delivered the following picture:

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Factors	Regression Analysis		
Attitude	-0.301	Behavior Intention	.633 Behavior
Self-efficacy	0.192		
Popularity	.354		
Lung Disease	-.185		
Means to enjoy	.418		

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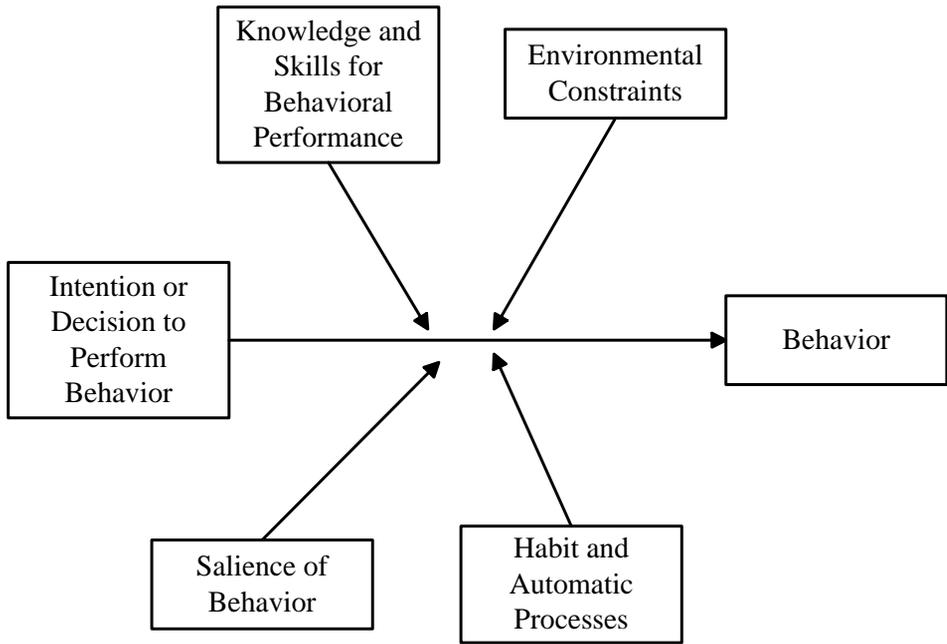


Figure 1

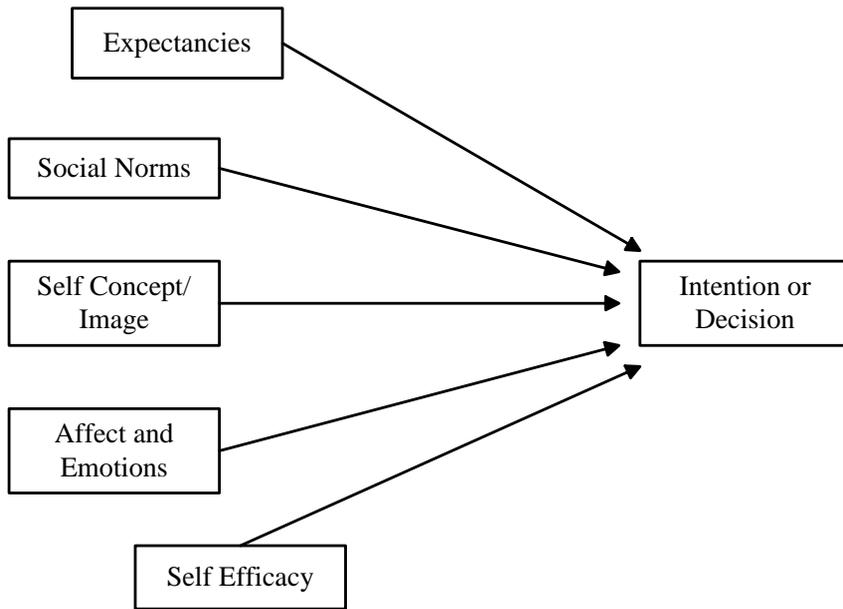


Figure 2

## **Interplay between Subjective Wellbeing and Personality Values' Becoming**

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*This paper investigated relations of personality values and subjective well-being. We examined how values influence life satisfaction of 234 Macedonian and 230 Ukrainian young adults who provided data on personality values (PVQ, Schwartz, 1994) and life satisfaction (Diener et al., 1985). Hypothesized direct relations of types of values to well-being based on “healthy” (self-direction, stimulation, achievement, benevolence, universalism) and “unhealthy” (power, security, conformity, tradition) values were tested in each sample. Results showed that a) Ukrainians compared to their Macedonian peers reported higher scores on all values except for power; b) conformity and security values correlated with well-being, as predicted, but only in the Macedonian sample. Results partly supported our hypotheses regarding the values conducive to well-being among students in both countries. Findings are discussed in terms of values' influence for well-being of youth in Macedonian and Ukrainian contexts.*

## *Introduction*

This paper investigates personality values underlying life satisfaction in Macedonian and Ukrainian students. We use Schwartz's (1992) theory of universals and structure of basic values, defined as desirable goals, varying in importance, that serve as guiding principles in people's lives. Thus, values are socially approved verbal representations of basic motivations (Schwartz, 1992). Schwartz proposed ten distinct types of values (self-direction, stimulation, achievement, benevolence, hedonism, universalism, power, security, conformity, and tradition) deemed to be comprehensive antecedents of motivations common to people across cultures. Extant research has provided considerable support for this theory (Schwartz, 1994; Schwartz & Sagiv, 1995) but their relation to well-being is less studied (Romanyuk, 2013). In fact, very few studies have taken in consideration the relationship between values and well-being and specifically in cross-national comparisons (Sagiv & Schwartz, 2000). Therefore, investigating these types of values allows for a more comprehensive understanding of the relationship between motivational antecedents and psychological well-being across various cultural groups. To this end, we present in this article a comparative perspective of the relationships between values and well-being by extending the available research in Macedonia and Ukraine.

This paper is based on the Schwartz's values model that provides insights into underlying processes of positive/negative influence of values on well-being in terms of life satisfaction. The model distinguishes ten basic values grouped in four dimensions: self-direction, stimulation (Openness to Change), achievement, power, hedonism (Self-Enhancement), security, conformity (Conservation) and benevolence, universalism, tradition (Self-Transcendence). Drawing on the conceptual model, this article addresses two research questions: (1) Are there group differences in personality values and life satisfaction between Macedonian and Ukrainian groups? (2) What is the relationship between personality values and well-being? In addressing these relevant issues, this article adds to the increasingly growing research and attention to rapidly changing Eastern European regions, while also providing an important addition to relatively small body of work using cross-national comparisons in these areas.

### *Personality Values and Well-Being*

As already mentioned in the introduction, we have based our approach on the Schwartz's (1992) theory of basic values (self-direction, stimulation, achievement, benevolence, hedonism, universalism, power, security, conformity, tradition). In the following, we give a brief definition of each value as to provide a more comprehensive understanding of their relationship to well-being in support of our comparative approach in Macedonia and Ukraine.

*Self-direction* regards independent thought and action derived from basic needs for control (Bandura, 1977; Deci, 1975) as well as autonomy and independence (Kluckhohn, 1951; Kohn & Schooler, 1983; Morris, 1956). *Stimulation* concerns excitement, novelty, and challenge derived mainly from the need to maintain an optimal level of activation and general functioning (Berlyne, 1960). *Hedonism* is defined as pleasure or sensuous gratification for oneself. Hedonism values derive from needs for pleasure and the gratifications associated with satisfying them. Theorists from many disciplines (Freud, 1933; Morris, 1956; Williams, 1968) focus on hedonism as a primary need for human beings.

*Achievement* concerns personal success through demonstrating competence according to prevailing social standards. High achievement and performance generates resources necessary for individuals to survive and for institutions to reach their goals. Achievement values have a long tradition of attention in many disciplines (Maslow, 1965; Rokeach, 1973) and are emphasized by competence reached by cultural standards and general social approval in a specific context.

*Power* is defined as social status and prestige, control or dominance over people and resources (Parsons, 1951). A power values emerge also in most empirical analyses of interpersonal relations both within and across cultures (Lonner, 1980). Power values may also be transformations of individual needs that are primarily oriented towards dominance and control over others (Allport, 1961; Korman, 1974). It should be noted that both power and achievement values focus on social esteem. However, achievement values (e.g., ambitious) emphasize the active demonstration of successful performance in concrete interaction,

whereas power values (e.g., authority) focus on the preservation of a high social position within a more general social system.

*Security* is defined as safety and stability of society, of relationships, and of the self. Security values derive from basic individual and collective requirements (Kluckhohn, 1951; Maslow, 1965; Williams, 1968) and are represented by two subtypes of security values. One type regards individual interests (e.g., clean) and another type regards social group interests (e.g., national security). Both types, however have the goal of security for self or close/significant others and can therefore be unified into a more encompassing value.

*Conformity* regards restraint of actions and impulses likely to upset/harm others and violate social expectations/norms. Conformity values derive from the fact that people inhibit inclinations that might disrupt and undermine smooth interaction and group functioning. The majority of value analyses focus on conformity emphasizing self-restraint in everyday interaction with close social groups and or people (Freud, 1930; Kohn & Schooler, 1983; Morris, 1956; Parsons, 1951).

*Tradition* concerns respect and acceptance of customs and ideas of a given culture or religion. People develop practices, symbols and beliefs of their shared experiences that become valued group customs and traditions (Sumner, 1906). These practices symbolize the group's solidarity and uniqueness (Durkheim, 1912/1954; Parsons, 1951), thus representing religious rituals, beliefs, and behavioral norms. Tradition and conformity values are interrelated because of sharing the goal of subordinating the self in favor of socially imposed norms. Both tradition and conformity differ in the objects to which the self is subordinated. Conformity regards subordination to people in frequent interaction such as parents, teachers, supervisors, whereas tradition involves subordination to abstract ideas such as religious and culture related objects and customs.

*Benevolence* entails preserving and enhancing the welfare of people with whom a person is in frequent contact. Benevolence values derive from the basic need for effective group functioning (Kluckhohn, 1951; Williams, 1968) and the need for affiliation (Korman, 1974; Maslow, 1965). These values involve voluntary concern for others, while also promoting

cooperative and supportive social relations. It can be stated, therefore that benevolence values serve as an internalized motivational origin for such concerns and related behaviors. In this regard, they are similar to conformity values in motivating the same helpful and prosocial behaviors, and may be considered separately or together.

*Universalism* involves understanding, appreciation, and protection for the welfare of all people and the nature. Universalism values differ slightly from benevolence values in that they derive from survival needs of individuals and groups. Hence, we are not aware of these needs if we are not a situation of scarcity of natural resources. Consequently, in life-threatening strife, people may also realize that failure to protect the natural environment will lead to the destruction of life-protecting resources. Finally, universalism combines two subtypes of concern - one for the welfare of people in wider society and another for the world and overall nature.

The Schwartz's theory has been tested in cross-cultural research in more than 200 samples from over 60 countries (Schwartz, 1992, 1994; Schwartz & Sagiv, 2000) and strong evidence has been provided on the distinctiveness of the ten value types and the structure of relations among value types. However, research that compares values across cultures in relation to well-being is less prolific. In addressing this relationship, the available literature suggests that particular values contribute positively to well-being, whereas other values are less beneficial for well-being. For example, there has been a distinction of "healthy" and "unhealthy" values based on their positive and negative influence on well-being. Values of self-direction (e.g., autonomy, independence), benevolence (e.g., responsibility), achievement, stimulation, and universalism (e.g., self-awareness, personal growth) are considered "healthy" because they are positively related to well-being (Jensen & Bergin, 1988). "Unhealthy" values with negative relation to psychological outcomes are conformity, tradition, security and power.

Based on the above theories and research, as well as the hypothesis of this article on the relationship between values and well-being, we expect that "healthy" values of self-direction, benevolence, universalism, stimulation and achievement to correlate positively with well-being, whereas "unhealthy" values of conformity, security, power, and tradition

to correlate negatively with subjective well-being. Based on prior classifications (Schwartz & Bilsky, 1987; 1990) and related theoretical and empirical studies (Schwartz, 1992, 1994), we did not consider hedonism values and do not advance clear hypotheses with regard to hedonism.

### *Context and Hypotheses*

The present paper reports on a study conducted in Macedonia and Ukraine, which are two European countries with important differences in terms of life satisfaction and general social circumstances. Ukraine is an Eastern Slavic state flourished from the ninth to the thirteenth centuries on the territory of contemporary Ukraine, with Kyiv as its capital. The country gained independence after the collapse of the Soviet Union in 1991 and has since been seeking integration with Western Europe and Russia, which supplies most of the country's energy (BBC, 2014). Ukraine is considered Europe's second largest country that has strong historical origins with Russia as well as with European neighboring countries, mainly Poland. The most recent census in 1989 estimated a population of 51,452,000 residents, despite the negative population growth due to severe economic and environmental crises, including the Chernobyl disaster. There is also a significant presence of ethnic minority Russians who use Russian as their first language and have particularly strong influence in the industrialized sectors. In fact, in contemporary Ukraine, many former Soviet bureaucrats (the *nomenklatura*) retained their status and political influence as members of the new administration or as newly rich businesses. In general, the social system is characterized by stressful economic and social situations combined with the post-communist heritage and corruption mostly after the Orange revolution. Despite these negative trends, in contemporary Ukraine there is a new stage of national identity development that arises from self-determination and pride shared with others on the basis of a common language, cultural and family traditions, religion, and historical heritage. There is a lively reassessment of these national identity elements especially in the recent moves to join the EU, which fuelled tensions with Russia because the government decided to drop the agreement. This brought tens of thousands of protesters out onto the

streets of Kiev in November 2013 and the protests against the government have been particularly vivid.

Macedonia is situated in the Balkan Peninsula, and is the most southern republic of the former -Yugoslavia. The country has been independent since 1991 as a parliamentary democracy and its GDP is among the lowest in Europe with an unemployment rate of 30%. Macedonia is dominantly a collectivistic society (Kenig, 2006), where collectivism is understood as devotion to the values, norms, standards and criteria of the group and closer community. The total population is slightly above 2 million, with two major different communities. The biggest community is the one of ethnic Macedonians consisting of 66% of the population, with Slavic origin and mostly Orthodox Christians. The other group is with ethnic Albanian origin, numbering 24% of the total population, being mostly Muslim. In fact, in the last few decades, Macedonian society has been experiencing continuous inter-ethnic tensions.

Additionally, differences in life satisfaction between Macedonia and Ukraine have been reported. For example, findings from large multi-national comparisons show that Ukraine scores a bit higher than Macedonia regarding overall satisfaction with life (Veenhoven, 2013). This study is designed to examine the relation between values and life satisfaction in Macedonia and Ukraine by addressing two main questions 1) Are there differences in values and life satisfaction between Macedonian and Ukrainian groups? (2) Do values influence life satisfaction? In relation to the first research question, we do not advance specific hypotheses. Overall, we do not expect big group differences in values between Macedonia and Ukraine because prior research has generally shown that these countries score very similar in human values based on PVQ (Vala & Costa-Lopes, 2010). However, Macedonians are expected to score lower on life satisfaction than Ukrainians, given that Macedonia on average scores lower on life satisfaction than Ukrainians (Veenhoven, 2013).

In relation to the second research question, the extent to which values predict life satisfaction of Macedonian and Ukrainian groups is examined. Based on prior work, we expect that “healthy” values (self-direction, benevolence, universalism, stimulation and achievement) to be

positively related with well-being, whereas “unhealthy” values (conformity, security, power, and tradition) to be negatively related with subjective well-being across groups. Therefore, it was hypothesized that young adults from both countries, who have strong and developed “healthy” values will feel better in life and vice versa, as far as the relation of “unhealthy” values and life satisfaction is concerned.

## *Methods*

### *Participants*

The present article considers a sample of 464 participants in total, coming from Macedonia ( $n = 234$ ) and Ukraine ( $n = 230$ ) of whom, 55% are females and 45% males. The average age was 20, 19 years ( $SD = 4.21$ ) (see Table 1). The two samples differed with respect to gender, with more girls in the Macedonian group than in the Ukrainian group,  $\chi^2(1, N = 425) = 111.78, p < .001$ . The groups did not differ with respect to age. Since the samples differed in gender, the effects of this demographic variable were statistically controlled for in subsequent analyses.

Participants for this study were recruited from two public universities in Kyiv (Ukraine) and Skopje (Macedonia). Prior to data collection, students were informed about the purpose and methods of the study to assure their participation. Data were collected during normal teaching time. They were also informed that participation was entirely voluntary and confidential and that they were free to discontinue their participation at any time. Students were also informed that if they were interested, they would receive a final report about the study.

### *Measures*

*Sociodemographic data.* All participants provided data on socio-demographic variables of nationality, gender and age.

*Personality Values.* We used the *Portrait Values Questionnaire* (PVQ; Schwartz et al., 1994, 2001). The instrument was adapted for the

Ukrainian context (Romanyuk, 2009). This questionnaire is composed of 40 items that were designed to measure ten value dimensions with examples given next to each dimension, namely: self-direction, (four items); (“She likes to do things in her own original way”), stimulation, (three items); (“He always looks for new things to try”), hedonism, (three items); (“He seeks every chance he can to have fun”), achievement, (four items); (“She likes to impress other people”), power, (three items); (“She wants people to do what she says”), security, (five items); (“It is important to him to live in secure surroundings”), conformity, (four items); (“He believes that people should do what they’re told”), tradition, (four items); (“She thinks it is best to do things in traditional ways”), benevolence, (four items); (“It’s very important to help the people around him”), and universalism, (six items); (“He believes everyone should have equal opportunities in life”). The questionnaire was administered in two versions, one for the female and one for the male students. The versions were identical except for the words that indicated the gender of respondents. The items were rated on a response scale 1 = *not like me at all*, 6 = *very much like me*). Internal reliability measured with Cronbach’s coefficient were  $\alpha = .82$  for the Macedonian and  $\alpha = .77$  for the Ukrainian sample.

*Well-Being* was measured with *The Satisfaction with Life Scale (SWLS)* (Diener, Emmons, Larsen, & Griffin, 1985). The scale consists of 5 items rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Sample items included “in most ways my life is close to my ideal”, “I am satisfied with life”, and “if I could live my life over, I would change almost nothing”. Internal reliability measured with Cronbach’s coefficient was  $\alpha = .81$  for the Macedonian and  $\alpha = .80$  for the Ukrainian sample. The SWLS is one of the most widely used measures of well-being and extant research on its validity across different cultures and nations has been conducted. Further support for the validity of the scale is provided by strong evidence on its psychometric properties across various cultural groups (Diener et al., 1985; Diener, Helliwell, & Kahneman, 2010; Ponizovsky, Dimitrova, Schachner, & van de Schoot, 2013).

## *Results*

### *Preliminary Analyses*

The main research questions were addressed in three steps. First, group differences in values and well-being between Macedonian and Ukrainian samples were examined by carrying out a MANCOVA, which included a total score of each personality value and life satisfaction measures as dependent variables and group (Macedonian and Ukrainian) as independent variables and gender as covariate. Additional MANCOVA was performed on the four value factors (i.e., Openness to Change, Self-Enhancement, Conservation, and Self-Transcendence) as dependent variables, and group (Macedonian and Ukrainian) as independent variables and gender as covariate. Second, the question of whether values are predictors of well-being for Macedonian and Ukrainian youth was addressed. We ran two separate regression models with nine values (self-determination, stimulation, achievement, power, security, conformity, benevolence, universalism, tradition) as predictors of life satisfaction for each group. Additionally, we reported Pearson correlations between values and life satisfaction for each group.

### *Group Differences in Values and Life Satisfaction*

Table 1 presents mean scores for Macedonian and Ukrainian groups. As can be seen from the data, a significant ethnic group difference was found for all value domains. Specifically, Ukrainians scored higher than Macedonians on self-determination ( $F(1, 424) = 1167.65, p < .001$ ), stimulation ( $F(1, 424) = 152.58, p < .001$ ), achievement ( $F(1, 424) = 312.49, p < .001$ ), security ( $F(1, 424) = 304.30, p < .001$ ), conformity ( $F(1, 424) = 201.49, p < .001$ ), tradition ( $F(1, 424) = 16.73, p < .001$ ), benevolence ( $F(1, 424) = 639.10, p < .001$ ), and universalism,  $F(1, 424) = 596.75, p < .001$ . Conversely, Macedonians scored higher than Ukrainians on power,  $F(1, 424) = 13.01, p < .001$ . No group differences on life satisfaction emerged. Additionally, Ukrainians scored higher than Macedonians on all four value factors of Openness to Change ( $F(1, 424) = 642.35, p < .001$ ), Self-Enhancement ( $F(1, 424) = 182.40, p < .001$ ), Conservation ( $F(1, 424) = 350.11, p < .001$ ), and Self-Transcendence,  $F(1, 424) = 504.36, p < .001$ .

Table 1 *Samples in Macedonia and Ukraine*

	Macedonian ( <i>n</i> = 226)	Ukrainian ( <i>n</i> = 200)	Group comparisons
Age, <i>M</i> ( <i>SD</i> )	19.84 (5.57)	20.49 (1.59)	n.s
Gender, <i>n</i>			
Boys	47	144	$\chi^2(1, N = 425) = 111.78^{***}$
Girls	178	56	
Values			
Self-direction	1.89 (.70)	4.62 (.66)	$F(1, 424) = 1167.65^{***}$
Stimulation	2.56 (.99)	3.99 (.88)	$F(1, 424) = 152.58^{***}$
Openness to Change	2.29 (.72)	4.31 (.56)	$F(1, 424) = 642.35^{***}$
Achievement	2.37 (1.03)	4.39 (.86)	$F(1, 424) = 312.49^{***}$
Power	4.16 (1.14)	3.67 (.93)	$F(1, 352) = 4.89^{***}$
Self- Enhancement	2.90 (.77)	4.14 (.74)	$F(1, 424) = 182.40^{***}$
Security	2.58 (.85)	4.13 (.65)	$F(1, 424) = 304.30^{***}$
Conformity	2.53 (.96)	3.93 (.66)	$F(1, 424) = 201.49^{***}$
Conservation	2.55 (.79)	4.00 (.80)	$F(1, 424) = 350.11^{***}$
Benevolence	2.08 (.76)	4.49 (.83)	$F(1, 424) = 639.10^{***}$
Universalism	2.17 (.72)	3.98 (.24)	$F(1, 424) = 596.75^{***}$
Tradition	3.26 (1.14)	3.78 (.70)	$F(1, 424) = 16.73^{***}$
Self- Transcendence	2.50 (.66)	3.25 (.98)	$F(1, 424) = 504.36^{***}$
Life Satisfaction	4.82 (1.24)	4.69 (1.09)	n.s.

Note: \*\*\*  $p < .001$ . n.s. = non significant

### *Values and Life Satisfaction: Relations across Cultural Groups*

The second research question was tested to see if values were related to life satisfaction for Macedonian and Ukrainian samples. It was expected that all nine components of the value model would be related to life satisfaction. To test this prediction, two series of linear regressions were

performed separately in each group. Coefficients of the regression models are represented in Table 2. As can be seen in Table 2, only conformity and tradition were significantly related to life satisfaction, but only for the Macedonian group. This result is in line with our expectations that “unhealthy” values are negatively related to well-being, although this relation was significant only for the Macedonian group.

Table 2. *Coefficients for Regression Models of Values and Life Satisfaction*

Value Predictors	Macedonian		Ukrainian	
	<i>B</i>	<i>t</i> -value	$\beta$	<i>t</i> -value
Self-direction	.002	.030 n.s	-.029	-.325 n.s
Stimulation	-.094	-1.34 n.s	-.054	-.635 n.s.
Achievement	-.390	-4.94 n.s	-.006	-.059 n.s.
Power	.037	.523 n.s	.077	.805 n.s.
Security	.056	.706 n.s	-.137	-1.79 n.s.
Conformity	-.255	-2.98***	-.040	-.526 n.s.
Benevolence	-.130	-1.75 n.s	.112	1.35 n.s.
Universalism	-.047	-.624 n.s	.077	1.01 n.s.
Tradition	-.174	-2.27*	-.074	-.935 n.s.

Note: \*  $p < .01$ . \*\*\*  $p < .001$ . n.s. = non-significant

Table 3. Correlation Coefficients for Values and Life Satisfaction across Groups

Values	Macedonian		Ukrainian	
	<i>R</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value
Self-direction	-.076	n.s.	.015	n.s.
Stimulation	-.084	n.s.	.038	n.s.
Achievement	-.091	n.s.	.019	n.s.
Power	.13	.05	.037	n.s.
Security	-.214	.001	-.114	n.s.
Conformity	-.40	.001	-.056	n.s.
Benevolence	-.32	.001	.046	n.s.
Universalism	-.24	.001	.048	n.s.
Tradition	-.36	.001	-.048	n.s.

Note: Significant correlation of values and life satisfaction at  $p < .05$  and  $p < .001$ . n.s. = non-significant

In addition, we presented Pearson linear correlations of nine values and life satisfaction (Table 3). Again, significant relationships emerged for Macedonian group only, where power was positively related to life satisfaction, whereas security, conformity, benevolence, universalism and tradition values were significantly negatively related to life satisfaction. No significant relationships for the Ukrainian groups emerged. Again, these results partly confirm our expectations on the relation of “healthy” and “unhealthy” values to well-being.

## *Conclusion*

This article aimed at examining differences in values and their relation to life satisfaction among Macedonian and Ukrainian samples. Overall our data and results supported the hypotheses and expectations. With regard to the first research questions, a group difference was found for all values (except for power), whereby Ukrainians scored higher on these factors compared to their Macedonian peers. We could also verify the existence of relationship between values of conservation (security and conformity) and self-transcendence (benevolence, universalism and tradition) for the Macedonian rather than Ukrainian group. In the following, we offer a discussion of these results as they relate to the existing literature.

With regard to the first aim, we could verify that Ukrainians scored higher than Macedonians on basic values as well as on major factors of openness to change, self-enhancement, conservation and self-transcendence. This is an interesting finding and we reasoned on possible explanations of these ethnic group differences. Therefore, we suggest that Ukrainian rather than Macedonian participants may be subjected to a context that is more favorable to issues related to their values options. Ukraine became an independent state after the end of the communism and the dissolution of the former USSR in the late '1990. In the last decades there has been a flourishing of independent political activities (e.g., The Orange Revolution) and openness toward the European Union as also mentioned in the country profile offered in the introduction. It may well be that these vivid social processes affected the Ukrainians and such context of dynamic change of the Ukrainian setting may explain group differences in values. Therefore, students in Ukraine may have a more turbulent environment that stimulates their value exploration options to a greater extent than in Macedonia. It may also be that in Ukraine, there is a longer history of independence struggles and political tensions compared to Macedonia; therefore, Ukrainian students may be more supportive and engaging in values explorations as a reaction to their national context circumstances.

There were no group differences for life satisfaction, which indicates that Macedonian and Ukrainian groups do not differ in overall well-being. A possible interpretation of why both groups score similarly might be the

similar socio-economic conditions in both countries. Although a slightly higher life satisfaction has been found in Ukraine (Veenhoven, 2013), these differences were rather small (mean score of 4.7 vs 5.00) therefore, we cannot detect large differences in life satisfaction between Macedonian and Ukrainian samples.

In relation to the second research question, regression models showed that values of conformity and tradition were significantly related to life satisfaction for the Macedonian group only. This result is in line with our expectations that “unhealthy” values are negatively related to well-being. In addition, correlation analyses showed significant negative relationships between security, conformity, benevolence, universalism and tradition to life satisfaction for Macedonian group only. Again, this result confirms our expectations on the relation of “healthy” and “unhealthy” values to well-being for the Macedonian group only.

The fact that no relationship between values and life satisfaction was evident for the Ukrainian group deserves thoughtful consideration. Our findings for the Ukrainian sample support the argument that there are very little or no relationships between the PVQ subscales and subjective well-being (SWL), although prior work has stated the implicit relationship between values and satisfaction with life. We therefore would like to offer several speculations of why this might be the case in our sample. As pointed out earlier by similar research, the Schwartz’s value typology may indeed be too broad in detecting strong relationships with indicators of well-being (Burroughs & Rindfleisch, 2002). Our findings mirror the suggestion by Sagiv and Schwartz’s (2000) that peoples’ satisfaction with their lives may be determined by the extent to which they assign importance to values, rather than by the importance they attribute to particular types of values. Additionally, Sagiv and Schwartz (2000) point out that cognitive well-being as measured by the SWLS may not depend on what people value, but on their success in attaining what they value and this may also explain our results. Additionally, scholars have pointed out that Diener’s (2006) definition of well-being as an umbrella for different valuations that people make embraces people’s values and that life satisfaction is a component of subjective well-being and therefore subordinate to well-being (Camfield & Skevington, 2008). It would thus be advisable for future research to

investigate the relationship between values and overall subjective well-being by including both cognitive and affective indices of well-being and particularly in Ukrainian samples.

Several limitations of the article need to be acknowledged. First, our findings are limited to Ukrainian and Macedonian settings and future investigations are necessary to generalize these results to other groups and cultural contexts. Future research may examine the value factors and their relations to well-being in other countries to see how these relations are embedded and perceived among students in other countries. Second, future studies are needed to expand on larger community samples rather than student samples only. Although student samples are most convenient and widely used groups in social sciences research, enlarged focus on larger community samples is desirable. These samples need to include younger as well as older segments of the populations, as intergenerational differences with regards to values may be particularly evident and more extreme in the context of rapid change in the post communist European countries. Third, we need to add additional measurement units to the study of personality values and well-being. For example, basic human values have been shown to relate to job satisfaction, overall social and occupational functioning (Axtell et al., 2002). Future studies are needed to address the role of cultural differences and context-specific indicators of personality values and well-being across diverse national contexts.

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## **Breast Cancer Burden in Tbilisi**

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*According to GLOBOCAN/IARC (2013), in 2008, 1 384 000 new cases of breast cancer incidence and 458 000 cancer related deaths were registered worldwide. Epidemiological research has been conducted at the University of Georgia to specify the number of breast cancer incidence in Tbilisi. There is data on 12 913 cases of breast cancer in Tbilisi in 1998-2010 provided by the National Center for Disease Control and Public Health (NCDC). Tbilisi Population Cancer Registry provided information about 16 705 cases of death in the Tbilisi's female population in 2002-2004. Based on a descriptive analysis, it has been determined that in the Tbilisi's female population, the number and frequency of breast cancer is an important medical and social problem. The frequency of incidence of breast cancer in Tbilisi (ASR=123% ; AAR=158%) and the frequency of cancer related deaths (ASR=33% ; AAR=43%) correspond to the index of the average level of the developed countries of the world. Besides, according to both indicators in dynamics, there was an increase in breast cancer incidence. Compared to 1988-1992, in 2008-2010, according to SRR, the frequency of breast cancer rose 3.5 times, and according to SIR – by 253%. In Tbilisi, in 2002-2004, the cases of deaths caused by cancer ranked second after those caused by the circulatory system and its share in the structure of death comprised 18%. In the structure of cancer mortality in women over 25, breast cancer ranks first. At the same time, at a later period, 35-59, breast cancer again ranks first in the structure of different causes of death. As a result of the research, recommendations have been worked out.*

*Problems Statement*

In the modern world, for the past few decades the burden of disease has been mainly defined by chronic diseases. Among these diseases, alongside circulatory ones, cancer is the leader. It is generally accepted that the issue of breast cancer has long gone beyond the sphere of medical care and has acquired the meaning and importance of vital social problems.

According to GLOBOCAN (2013), in 2008 there were 1 384 000 new cases of breast cancer which caused 458 000 deaths.

According to Parkin D. M. and Fernandez L. M. G. (2006), approximately 16% of the world's population is covered by the Cancer Incidence Registry System while receiving information about cancer mortality can be found in approximately 29% of the world.

According to Parkin D. M. and Fernandez L. M. G. (2006), the index of breast cancer incidence and mortality differs considerably in different regions of the world. Mainly, the highest levels (80 and more per 100 000 women) are found in the developed regions, while the lowest levels (30 and less cases per 100 000 women) are found in the developing regions. At the same time, there is a tendency of increase in breast cancer incidence in almost all regions.

According to the data provided by World Health Organization (WHO, 2005), the highest indices of breast cancer mortality were registered in Denmark (23.5%), Belgium (22.6%), Ireland (22.2%) and the Netherlands (21.7%), while the lowest indices were registered in Tajikistan (4.8%), San Marino (6.0%), Albania (7.4%), Turkmenistan (7.9%), Uzbekistan (8.5%) and Kyrgyzstan (9.9%).

According to the data provided by the World Health Organization (WHO, 2008), breast cancer ranks first in the structure of cancer in developed regions, America, Europe and West Mediterranean regions, and it is the second in Africa and South-Eastern Asia.

P. Boyle and J. Ferlay (2010) analyzed breast cancer incidence and mortality in 25 European countries in 2004. Breast cancer is one of the

main forms of cancer found in European women. In 2004, 370 100 new cases of breast cancer incidence (27.4% out of all types of cancer in females) and 129 900 cases of mortality (17.4%) were registered in Europe.

According to the data provided by Fred Hutchinson's Cancer Research Center of Washington University (Porter P.L., 2009), there has recently been a tendency for an increase in the numbers of breast cancer incidence and mortality around the whole world, particularly in economically less developed countries. On the one hand, it is connected with the changes in the distribution of risk factors such as a different way of life, genetic and biological differences between ethnic groups and races. On the other hand, in economically less developed countries, there are no commonly established effective strategic programs to control cancer, like cancer screening, which is able to considerably reduce the number of deaths caused by breast cancer.

Breast cancer incidence is higher in economically developed countries among white populations. According to the database of Global Cancer (GLOBOCAN/IARC), by 2002, worldwide, 37.4 per 100 000 women, suffered from cancer and 13.2 died of it. Among them, 103.7 suffered and 18.1 died in economically developed countries, while in developing countries, 20.9 suffered from and 10.3 died of cancer. It is notable that the incidence/mortality ratio is on average 0.35. This ratio is the highest (0.69) in Africa and the lowest (0.19) in South America (Porter P.L., 2009).

According to Lythcott N. (2004), between 1995-1999 in California on average 48 new cases of invasive breast cancer and of Ca in situ were found in women under 50 per year, among them: 52.7/100,000 white, 48.4/100,000 black, 46.3/100,000 Asian and 35.2/100,000 Latina women. In women above 50, there was a sharp increase in invasive breast cancer and Ca in situ and, on average, reached 426.2/100,000, among them: 484.1/100,000 white, 372.2/100,000 black, 265.4/100,000 Asian and 256.9/100,000 Latina women.

Botha J.L. (2003) and his co-authors analyzed the tendency of breast cancer incidence and mortality in 16 European countries, in six of them there has been abreast-screening program since the 1980s. In England,

Wales, Scotland and Holland, there is a tendency for a reduction in breast cancer mortality, which is connected with diagnosing cancer at its early stage and adequate treatment by screening.

M. McCracken and his co-authors (2007) studied the data provided by the California Cancer Centre Registry concerning the main cancers (prostate, breast, lung, large intestine, stomach, liver, womb), the index of deaths related to the disease and the screening results in 5 main ethnic groups of Asian immigrants living in the State of California (Chinese, Filipino, Vietnamese, Korean and Japanese). The authors point to certain differences in the structure of incidence and mortality according to ethnic affiliations. The highest index of breast cancer mortality was registered in Filipina and Japanese women.

Lacey J.V. et al. (2001) studied the indices of breast cancer incidence and mortality in the USA in 2001. In the USA in 2001, breast cancer made up 1/3 of the diagnostic cases and 15% of cancer mortality. In 2001 in the USA there were 192 000 registered cases of breast cancer incidence and 40 000 cases of mortality.

According to Katalinic et al. (2009), breast cancer is the most common form of cancer among German women. According to Population-Based Cancer Registry in Germany, there was an increase in breast cancer incidence until 2002, after which, as a result of improved early diagnostics and therapy, there was a reduction of this form of cancer by 6.8% until 2005. The maximum reduction of the disease was found in the age group: 50-59 (12%). Compared to 1996-1997, in 2004-2005 the death rate decreased by 19%, especially (30%) among women under 55. The authors explained this tendency by the improvement of early detection and the reduction of hormonal therapy.

Based on the data provided by National Cancer Institute (NCI, Bethesda) and SEER program of Cancer Statistics, according to Altekruse S.F. et al. (2009), the average age of people having cancer in the USA is 61. In the USA, the number of cases of cancer by age are the following: in women under 20 – 0.0%, 20-34 – 1.9%, 35-44 – 10.5%, 45-54 – 22.6%, 55-64 – 24.1%, 65-74 – 19.5%, 75-85 – 15.8% and 85 and more – 5.6%. In the USA, in 2003-2007, the index of cancer cases per year by age was, on average, 122.9 per 100 000 women. At the same time, the highest level of

cancer (126.5 per 100 000 women) was registered among white women, and the lowest (76.4) – among American Indians and Alaska aboriginal women. Five-year surveillance during breast cancer corresponded to 98.0%, in case of regional distribution – 83.6%, and in case of distance metastases – 23.4%.

According to Pujol H. (2000), breast cancer has been the main concern for the health system, despite some data provided by other authors concerning the decrease in breast cancer mortality in the countries which practice screening programs. The author studied the preventive role of Tamoxifen in the case of breast cancer. In the author's opinion, chemotherapy reduces the risk of development of cancer in the other breast by 40%, at the same time it increases the risk of development of endometrial cancer among healthy women.

Having analyzed the cases of cancer incidence and mortality all over the world in 1973-1997, Althuis M.D. et al. (2005) came to the conclusion that breast cancer is the main site of cancer and the main cause of death among women. The difference between the highest and the lowest levels of breast cancer is distinguished according to geographical area and ethnic affiliation. In 1973-1997, the lowest level of breast cancer (27/100 000) was found among Asian women, and the highest in the USA among white women (97/100 000).

Gomez S.L. et al. (2010) studied the data gathered by the California Cancer Registry and SEER program about the breast cancer incidence revealed in Asian (Chinese, Japanese, Filipina, Korean, Vietnamese) women living and born in the USA in 1988-2005. The follow-up observations were conducted until 2007. The research results showed that among women born in the USA, despite their ethnic affiliation, there were the same death-rate indices. At the same time, the chance of surviving after treatment of breast cancer was higher among women born in the USA than among the first generation of Asian immigrants.

According to American Cancer Society (ACS), in 2007, there were 178 480 new cases of invasive breast cancer among female population of the USA. In the same year, 62 030 cases of breast cancer at stage CIS (stage 0) were revealed. In 2007, 40 460 women died by breast cancer in the USA.

According to American Cancer Society (ACS), in 2009, 192 370 new cases of invasive breast cancer were registered in female population of the USA. In the same year, 62,280 cases of breast cancer at stage CIS (stage 0) were revealed. In 2007, 40 170 women died of breast cancer in the USA.

Tyczynski J.E. et al. (2002) provided data from the European Network of Cancer Registry (ENCR, Lyon): worldwide, the most frequent site of cancer among women is breast. The highest frequency of breast cancer is found in North America, and the lowest – in Asia and Africa. Breast cancer is also the most frequent form of cancer among European women. In 2000, there were 350 000 new cases of breast cancer in Europe and 130 000 cancer-related deaths. Breast cancer comprises 26.5% of cancer and 17.5% of cancer-related deaths.

According to the results of descriptive epidemiological research conducted by Baquet C.R. et al. (2008), in the USA, invasive breast cancer incidence is 1.16 times more frequent among black women under 40 than among white women. Breast cancer mortality was twice higher among black women under 40 than among white women. Statistically, compared to white women, among black women cancer is evidently found more frequently according to regional or distance distribution and, therefore, the index of the five-year survival rate was lower in the given case.

According to 2008 data from the National Cancer Institute (NCI, Bethesda), among US women, breast cancer is the most widely-spread site of cancer and the main reason of cancer-related deaths. From 1990, there has been an increase in this form of cancer. Compared to other ethnic groups, breast cancer incidence is higher in white women, while cancer mortality is higher in black women. In the USA, the treatment of breast cancer costs 8.1 billion dollars a year. From 2003 to 2007, National Cancer Institute (NCI, Bethesda) increased the investments in breast cancer research from 548.7 million to 572.4 million US dollars.

According to Hall R.G. (2007), in 2001 in the state of Victoria, Australia, the burden of breast cancer among women's diseases was 5%, based on the DALY index.

According to 2001 data of the health department of San Francisco, in San Francisco female population breast cancer ranked first in the structure of oncology diseases.

According to Woodcock J. et al. (2009), diseases in London's female population were mainly cardiovascular diseases (10-19%), cerebrovascular insult (10-18%) and breast cancer (12-13%).

According to Murray J.L. et al. (2001), in 2000, breast cancer mortality reached 1.6% in European regions, 1.5% - in America, 2.0% - in high-income countries.

According to Reddy K.S. (2003), death or disability caused by chronic diseases at an average reproductive age is economically heavy for individuals, their families and, generally, the society of New Delhi. Considering prevention of breast cancer, the author recommends a wide use of self-examination.

Ljung R. et al. (2005) analyzed the general burden of disease in Sweden using the DALY index. The authors came to the conclusion that 30% of all disease among Swedish women is connected with social and economic differences while receiving medical service.

Therefore, the breast cancer burden represents a vital problem for most countries in the world. Considering the social importance of the issue, it is important to specify the breast cancer burden for Tbilisi's female population.

### *Research Aims*

Considering the actuality and social importance of the problem, it is necessary to specify breast cancer burden in Tbilisi. Based on the Georgian University of Medical Sciences and the School of Social Healthcare, descriptive research has been conducted within the scientific program of the university, on the topic: “Epidemiological evaluation of screening program of breast and cervical cancer in Tbilisi”.

The research set the following tasks:

- to study the incidence of breast cancer in Tbilisi;
- to establish the structure of the causes of death and specify the share of breast cancer in Tbilisi's female population.

### *Target Groups and Research Methodology*

There National Center for Disease Control and Public Health (NCDC) collected data on 13 286 cases of breast cancer in Tbilisi between 1998-2012. It is notable that in 2008-2010, on average 1 028 new cases were registered annually, but in 2011-2012 – just 187 cases. This sharp fall in the number of registered cases of breast cancer in 2011-2012 (only 18% of expected cases were registered) was connected with the disappearance of the cancer registry system. Due to this fact, the data from 2011-2012 has been removed from the descriptive research. We have analyzed the data during a 13-year period (1998-2010) about 12 913 cases of breast cancer according to 5-year age groups. Tbilisi's population registry provided information about 16 705 cases of female mortality in Tbilisi between 2002-2004, 2 977 of whom died of cancer, 845 - of breast cancer.

Descriptive epidemiological research has been conducted. It employed methodology recommended by International Agency of Researching Cancer (IARC, Lyon), International Association of Cancer Register (IACR, Lyon), European Network of Cancer Register (ENCR, Lyon) and the Union for International Cancer Control (UICC, Geneva) and SEER Program. The database was processed statistically.

The following descriptive indicators have been calculated: Crude Rates, Age-Specific Rates, Age-Standardized Rates (ASR), 95% CI ASR, Truncated Age-Standardized Rates (TASR), 95% CI TASR, Age-Adjusted Rates (AAR), Standardized Rate Ratios (SRR), 95% CI SRR, Standardized Incidence Ratios (SIR), 95% CI SIR, Cumulative Risk (CR), 95% CI CR, Relative Frequency, Ratio Frequency of cancer incidence and mortality.

We have analyzed the outcomes of the research, or descriptive indices, and presented it in the form of tables and graphs.

### *Research Results*

#### *Breast Cancer Burden in Tbilisi*

During a 13-year period(1998-2010), 12 913 cases of breast cancer were registered in Tbilisi.

According to crude rates, in Tbilisi, during a 13-year period (1998-2010), 167.4 per 100 000 women got breast cancer every year. Besides, according to crude rates in dynamics, compared to 1998-2010, 2003-2007 and 2008-2010, there was a rise in breast cancer incidence: from 149.9% to 181.5%and 173.3% respectively.

According to the Age-Standardized Rate (ASR), in Tbilisi, during a 13-year period (1998-2010) 122.9 per 100 000 women got breast cancer every year (95% CI ASR, 119,4-126,4) (see table 1).

Additionally, according to the Age-Standardized Rate(ASR) in dynamics, compared to 1998-2010, in 2003-2007 and 2008-2010, there was an increase in breast cancer incidence: from 109.6%(95% CI ASR,104,9-114,3) to 134.2% (95% CI ASR, 128,1-140,3) and 126.4% (95% CI ASR,118,8-134,0) respectively.

Table 1. The dynamics of breast cancer incidence in Tbilisi between 1998-2010, according to Age-Standardized Rates (ASR) per 100 000 women.

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Years	ASR	SE	95% CIASR
1998-2002	109,6	2,4	104,9-114,3
2003-2007	134,2	3,1	128,1-140,3
2008-2010	126,4	3,9	118,8-134,0
<b>1998-2010</b>	<b>122,9</b>	<b>1,8</b>	<b>119,4-126,4</b>

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According to V. Tkeshelashvili's (2002) data, based on ASR, in Tbilisi in 1998-2010, 35.7 per 100 000 women (95% CI ASR, 33,9-37,5) got breast cancer.

The dynamics of breast cancer during three 5-year periods with 10-year intervals is presented in Table 2 and Chart 1.

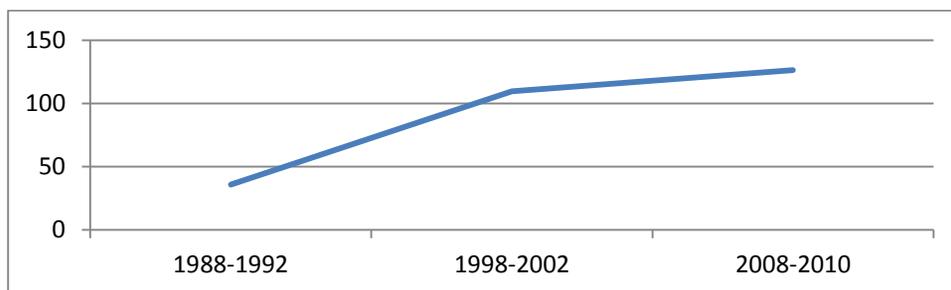
Table 2. The dynamics of breast cancer with 10-year intervals (1988-1992, 1998-2002, 2008-2010) according to the Age-Standardized Rate (ASR)

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Years	ASR	SE	95% CIASR
1988-1992	35,7	0,9	33,9-37,5
1998-2002	109,6	2,4	104,9-114,3
2008-2010	126,4	3,9	118,8-134,0

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Chart 1. The dynamics of breast cancer with 10-year intervals according to the Age-Standardized Rate (ASR)



Following 1988-1992, there was a sharp rise in breast cancer incidence (1988-1992: ASR=35,7; 95% CI=21,0-33,9; 1998-2002: ASR=109,6; 95% CI=104,9-114,3). It is true that from 1998-1992, there was a decrease in the development of this form, but, at the same time, until 2008-2010, there was an increase in distribution of the disease (2008-2010: ASR=126,4; 95% CI=118,8-134,0).

According to SRR, compared to 1988-1992, in 1998-2002, the frequency of breast cancer incidence increased three times (SRR=3,1; 95% CISRR=2,8-3,5), while, compared to 1988-1992, in 2008-2010 – it increased 3.5 times (SRR=3,5; 95% CISRR=3,1-4,0). This tendency continued in 2008-2010, compared to 1998-2002, though there was a decrease in this form of cancer (SRR=1,2; 95% CISRR=1,1-1,3) (see Table 3).

Table 3. The dynamics of breast cancer in Tbilisi according to Standardized Registration Ratio (SRR)

Comparison of periods	SRR	$\chi^2$	95% CISRR
1998-2002/1988-1992	3,1	807,9	2,8-3,5
2008-2010/1998-2002	1.2	13,9	1,1-1,3
2008-2010/1988-1992	3,5	514,2	3,1-4,0

Table 4. The dynamics of breast cancer in Tbilisi according to Standardized Incidence Ratios (SIR)

Comparison of Periods	SIR	SE	95% CI SIR
from 1998-2002 up to 2003-2007	305	4,6	296,4-314,3
from 2003-2007 up to 2008-2010-	116	2,1	111,5-119,7
from 1998-2002 up to 2008-2010	353	6,4	340,5-365,4

According to SIR, compared to 1988-1992, in 1998-2002, breast cancer increased by 205% (SIR =305;95% CISIR=296,4-314,3), while compared to 1988-1992, in 2008-2010 – by 253% (SIR =353;95% CISIR=340,5-365,4). This tendency remained in 2008-2010, compared to 1998-1992,

though this form of cancer decreased (SIR =116;95% CISIR=111,5-119,7) (see Table 4).

Table 5. The dynamics of breast cancer in Tbilisi according to Age-Adjusted Rates (AAR) (Tbilisi Standard, 2002) per 100 000 women

N	Years	AAR	SE	95% CI AAR
1	1998-2002	140,1	2,1	136,0-144,3
2	2003-2007	169,6	2,3	165,0-174,1
3	2008-2010	160,7	2,9	155,0-166,4
Total	1998-2010	156,2	1,4	153,5-158,9

According to Age-Adjusted Rates (AAR) (Tbilisi Standard, 2002), during a 13-year period (1998-2010), 156.2 per 100 000 women got breast cancer in Tbilisi per year (see Table 5).

Additionally, according to Age-Adjusted Rates (AAR) in dynamics, compared to 1998-2002, in 2003-2007 and 2008-2010, there was an increase in breast cancer incidence: from 140.1% to 160.7%.

Table 6. In 1998-2010, the dynamics of breast cancer in Tbilisi according to Truncated Age-Standardized Rates (TASR<sub>30-69</sub>) per 100 000 women

Years	TASR <sub>30-69</sub>	SE	95% CITASR <sub>30-69</sub>
1998-2002	239,1	9,0	221,5-256,8
2003-2007	293,6	10,0	274,0-313,2
2008-2010	264,9	9,8	245,7-284,1
<i>1998-2010</i>	<i>269,5</i>	<i>9,6</i>	<i>250,6-288,3</i>

According to Truncated Age-Standardized Rates (TASR<sub>30-69</sub>), in Tbilisi, during a 13-year period (1998-2010), in the age group: 30-69, 269.5 (95% CI=250,6-288.3) per 100 000 women had breast cancer each year (see Table 6).

Additionally, according to Truncated Age-Standardized Rates (TASR) in dynamics, compared to 1998-2002, in 2008-2010, there was an increase in breast cancer incidence in the age group: 30-69: from 239.1%(95% CITASR=221,5-256,8) to 264.9% (95% CITASR=245,7-284,1).

Table 7. Cumulative Risk (CR<sub>0-74</sub>) of breast cancer in Tbilisi in 1998-2010

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Years	CR <sub>0-74</sub>	SE <sub>Cum.Rate</sub>	95% CICR <sub>0-74</sub>
1998-2002	11,8	0,21	11,1-12,1
2003-2007	14,3	0,23	13,3-14,7
2008-2010	13,4	0,29	12,5-13,9
<i>1998-2010</i>	<i>13,1</i>	<i>0,14</i>	<i>12,3-13,3</i>

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The Cumulative Risk index (CR<sub>0-74</sub>) of breast cancer among the women living in Tbilisi was 13.1% during a 13-year period (1998-2010). Besides, in dynamics, compared to 1998-2002, in 2003-2007, there was an increase in Cumulative Risk index (CR<sub>0-74</sub>): from 11.8% (95% CICR<sub>0-74</sub>= 11,1-12,1) to 14.3%(95% CICR<sub>0-74</sub>= 13,3-14,7) (see Table 7).

### *The Structure of Death in Tbilisi's Female Population*

In 2002-2004, there were 16 705 registered cases of mortality in Tbilisi's female population. The average life span in Tbilisi's female population was 70.

The deaths caused by malignant neoplasm of breast ranked second after circulatory system and its share in death structure was 18% (see Table 8 and Chart 2).

Table 8. Causes of Death in Tbilisi's female Population, 2002-2004

#	System	All Ages	Crude Rate	%	ASR World	ICD-10
1	Diseases of the circulatory system	11191	628.9	67.0	504.5	I00-I99
2	<b>Neoplasms</b>	<b>2977</b>	<b>167.3</b>	<b>17.8</b>	<b>142.8</b>	<b>C00-D48</b>
3	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	602	33,8	3,6	31,8	R00-R99
4	Endocrine, nutritional and metabolic diseases	457	25,7	2,7	18,6	E00-E90
5	Certain conditions originating in the perinatal period	417	23,4	2,5	0,2	P00-P96
6	Diseases of the digestive system	281	15,8	1,7	11,8	K00-K93
7	External causes of morbidity and mortality	212	11,9	1,3	11,1	V01-Y98
8	Diseases of the respiratory system	205	11,5	1,2	7,3	J00-J99
9	Certain infectious and parasitic diseases	116	6,5	0,7	3,6	A00-B99
10	Diseases of the genitourinary system	77	4,3	0,5	3,6	N00-N99
11	Injury, poisoning and certain other consequences of external causes	54	3,0	0,3	2,1	S00-T98
12	Diseases of the nervous system	51	2,9	0,3	2,6	G00-G99
13	Congenital	26	1,5	0,2	0,0	Q00-Q99

	malformations, deformations and chromosomal abnormalities					
<b>14</b>	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	8	0,5	0,0	0,6	D50-D89
<b>15</b>	Mental and behavioural disorders	6	0,3	0,0	0,5	F00-F99
<b>16</b>	Pregnancy, childbirth and the puerperium	5	0,3	0,0	0,1	O00-O99
<b>17</b>	Diseases of the skin and subcutaneous tissue	4	0,2	0,0	0,2	L00-L99
<b>18</b>	Diseases of the musculoskeletal system and connective tissue	3	0,2	0,0	0,1	M00-M99
<b>19</b>	Diseases of the ear and mastoid process	1	0,1	0,0	0,1	H60-H95
	ICD unknown	12	0,7	0,1	0,3	unknown
<b>All Causes</b>		<b>16705</b>	<b>938,8</b>	<b>100,0</b>	<b>625,0</b>	<b>All</b>

In Tbilisi's female population, 9 out of 10 causes of mortality are connected with circulatory system diseases. A main cause of death is breast cancer (ICD-10: C50) as well, which ranks fourth in 10 main causes of death in Tbilisi's female population of all ages and its share is 5% of all deaths.

Chart 2

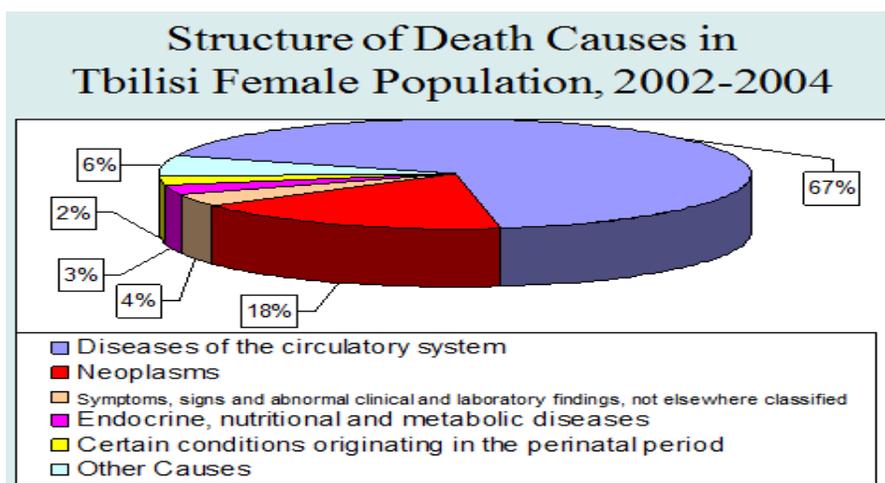


Table 9. 10 Main Causes of Death in Tbilisi's female Population, 2002-2004

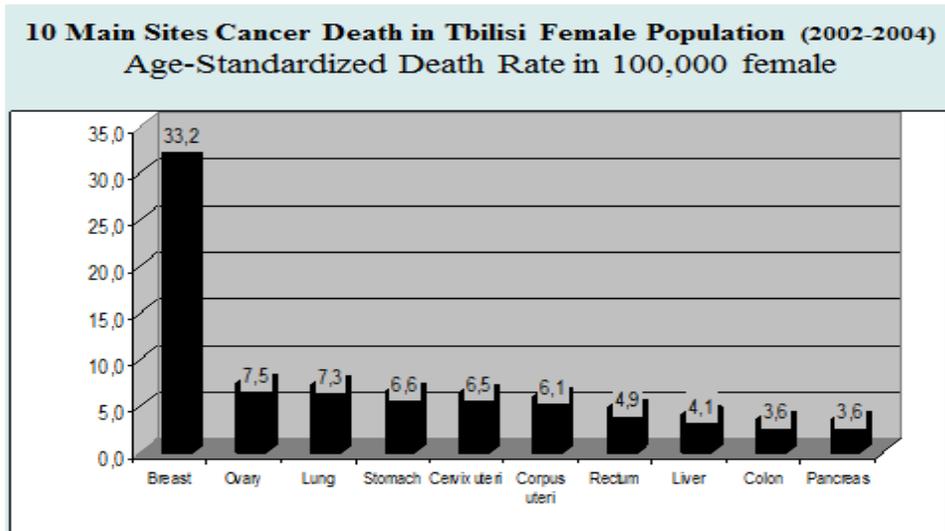
<i>N</i>	<i>SITE/Cause</i>	<i>All Ages</i>	<i>CrudeRate</i>	<i>%</i>	<i>ASR World</i>	<i>AAR (2002 Tbilisi Standard)</i>	<i>ICD 10th</i>
1	Chronic ischaemic heart disease	3735	209,9	22,4	115,0	170,3	I25
2	Stroke, not specified as haemorrhage or infarction	1866	104,9	11,2	59,2	87,0	I64
3	Heart failure	1414	79,5	8,5	47,3	66,6	I50
4	<b>Malignant neoplasm of breast</b>	<b>845</b>	<b>47,5</b>	<b>5,1</b>	<b>33,2</b>	<b>43,2</b>	<b>C50</b>
5	Other acute ischaemic heart diseases	894	50,2	5,4	27,6	40,8	I24

6	Intracerebral haemorrhage	830	46,6	5,0	26,8	38,7	161
7	Essential (primary) hypertension	537	30,2	3,2	16,5	24,6	110
8	Acute myocardial infarction	432	24,3	2,6	15,4	21,0	121
9	Hypertensive heart disease	465	26,1	2,8	14,0	21,3	111
10	Atherosclerosis	423	23,8	2,5	13,4	19,0	170

In 2002-2004, there were 845 registered cases of death caused by breast cancer; in other words, each year, according to crude rates, 48 per 100 000 Tbilisi's female citizens die of breast cancer, according to Age-Standardized Rates – 33, and according to Truncated Age-Standardized Rates (Tbilisi Standard) - 43.

Chart 3 presents the order of 10 main sites of cancer-related deaths per 100 000 women in Tbilisi's female population in 2002-2004, according to Age-Standardized Death Rates (World standard):

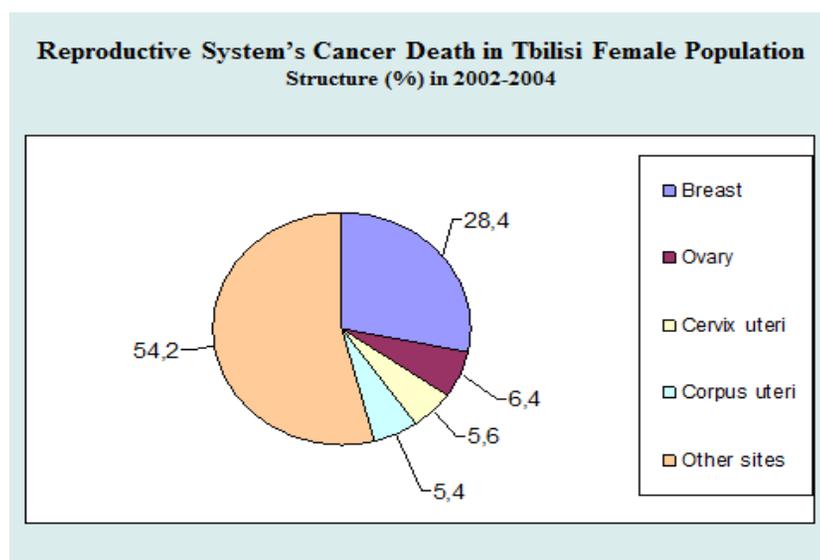
Chart 3



In 2002-2004, the structure of cancer-related deaths in Tbilisi's female population (10 main forms, according to Age-Standardized Rates per 100 000 women): 1. Breast - 33.2%; 2. Ovary - 7.5%; 3. Lung – 7.3%; 4. Stomach – 6.6%; 5. Cervix uteri - 6.5%; 6. Corpus uteri - 6.1%; 7. Rectum - 4.9%; 8. Liver – 4.1%; 9. Colon - 3.6%; 10. Pancreas - 3.6%.

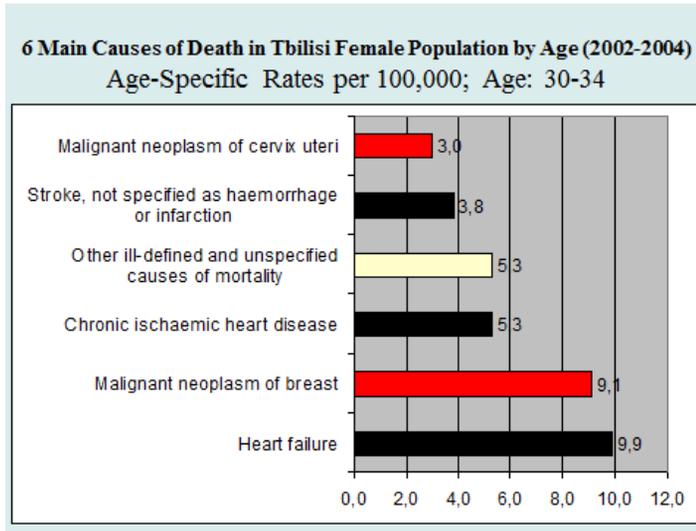
Almost half of the cases (45.8%) in the structure of cancer-related mortality in Tbilisi's female population are organs of the reproductive system, including: breast - 28.4%, ovary- 6.4%, cervix uteri- 5.6%, corpus uteri- 5.4% (Chart 4).

Chart 4



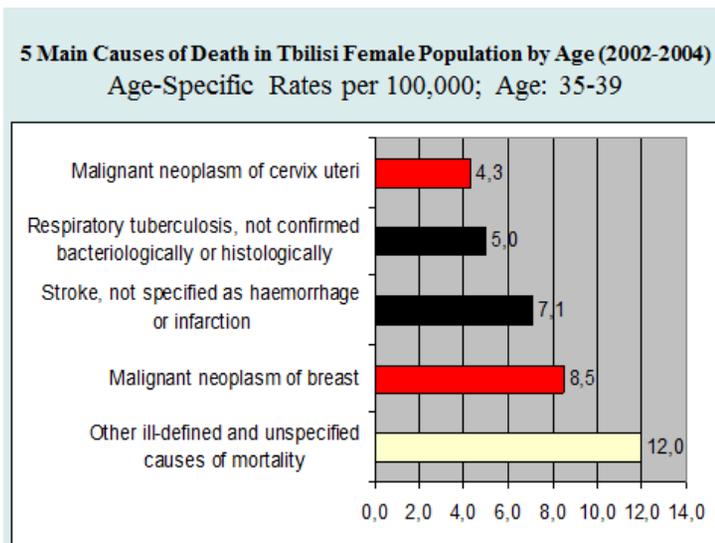
For effective preventive approach to the management of social healthcare, one of the most interesting issues for representatives of any field of medicine is the analysis of structure of death causes by age. In other words, while studying death structure, it is very important to establish the index of age-specific death rate in every 5-year age group per 100 000 citizens. This is possible by presenting it in a graphic form by comparing the levels of their importance.

Chart 5



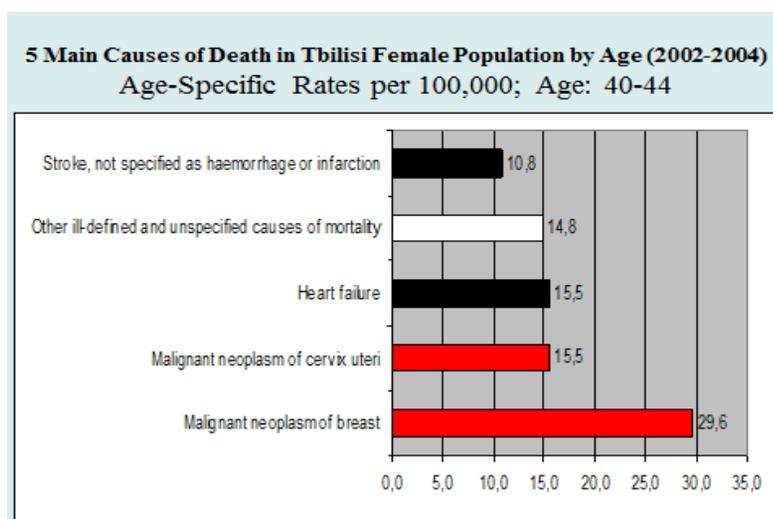
In the structure of the 5 main causes of death in women in the age group: 30-34, alongside diseases of circulatory system, there are breast (9.1%) and cervix uteri (3.0%) cancers which rank second and fifth respectively. 29.4% of deaths in women of this age were connected with cancer (ranked first), while 28.3% - to the diseases of circulatory system (ranked second). 10.4% of deaths in women of this age was connected with external reasons, 6.6% were caused by digestive system, and 25.3% - by other forms of disease (Chart 5).

Chart 6



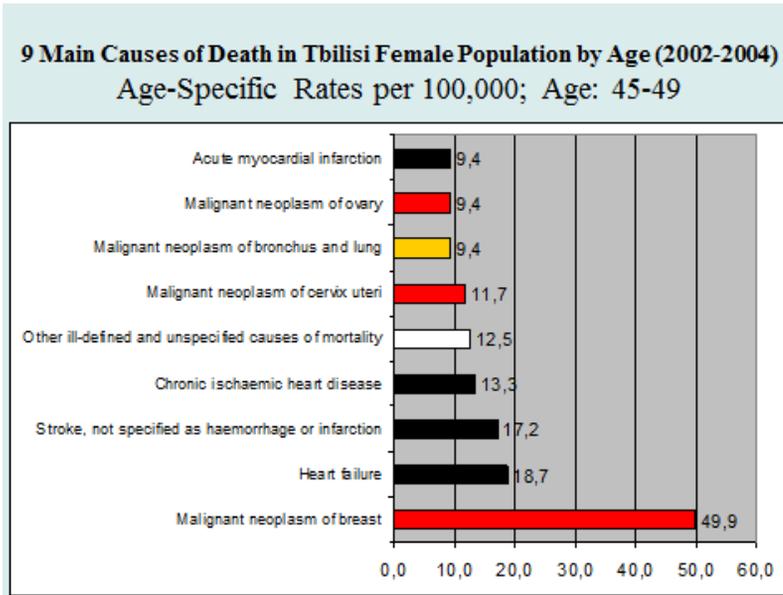
In the structure of death in Tbilisi's female population in the age group: 35-39, after studying non-verified causes of mortality, in 5 main causes breast (8.5%) and cervix uteri (4.3%) cancers ranked first and fourth respectively. Every 3<sup>rd</sup> death (37.6%) in women of this age was caused by cancer. In the structure of causes of death, cancer ranked first. The frequency of cancer-related deaths is 1.9 times more than the diseases of circulatory system which ranked second (19.6%) and 5.2 times more than infectious diseases which ranked third (7.2%). In women of this age, 6.5% of deaths were connected with external reasons. In the age group: 35-39, 17.4% of fatal cases were caused by other diseases, and 11.7% - were not identified at all (Chart 6).

Chart 7



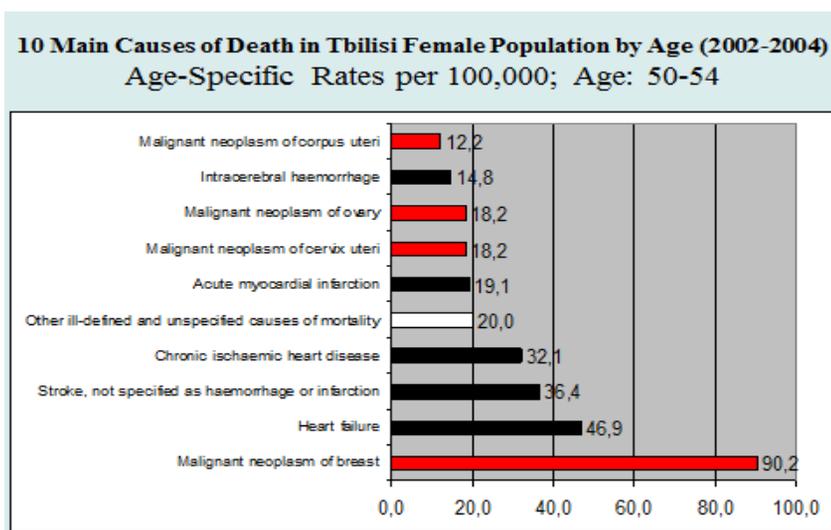
In the structure of death in Tbilisi's female population in the age group: 40-44, in 5 main causes, breast (29.6%) and cervix uteri (15.5%) cancers ranked first and second respectively. In women of this age, 43.6% of deaths were connected with cancer which ranked first in the structure of death. The frequency of cancer-related deaths is 1.7 times more than the diseases of circulatory system (25.6%) which was second. In women of this age, 6.5% of fatal cases were caused by external causes. In women aged 40-44, 15.8% of death were caused by other diseases and 8.4% - were not identified at all (Chart 7).

Chart 8



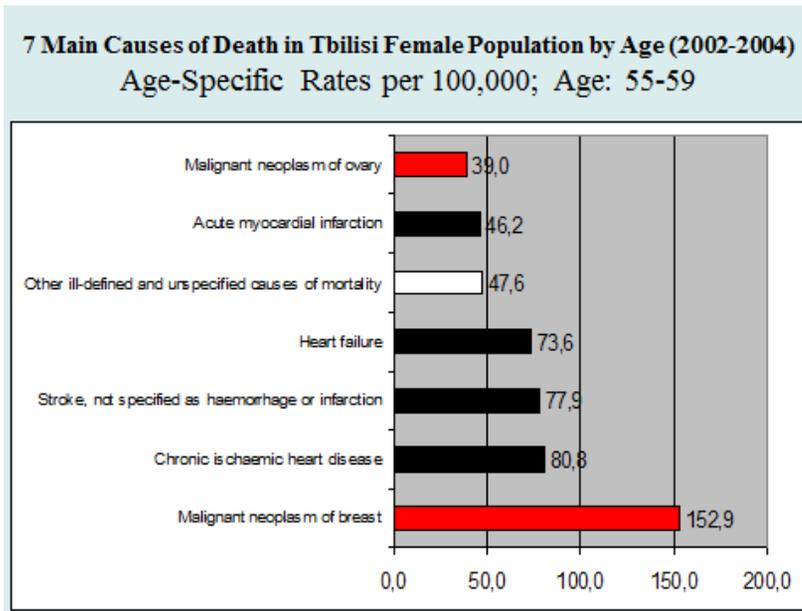
In the structure of death in Tbilisi's female population in the age group: 45-49, among 5 main causes breast (29.6%) and cervix uteri (15.5%) cancers ranked first and fifth respectively. 43.6% of deaths in women of this age were connected with cancer, which was first in the structure of causes of death. The frequency of cancer-related deaths is 1.7 times more than the diseases of circulatory system which rank second (25.6%). In women of this age, 6.5% of deaths were connected with external reasons. In the age group: 45-49, 15.8% of fatal cases were caused by other diseases, and 8.4% - were not identified at all (Chart 8).

Chart 9



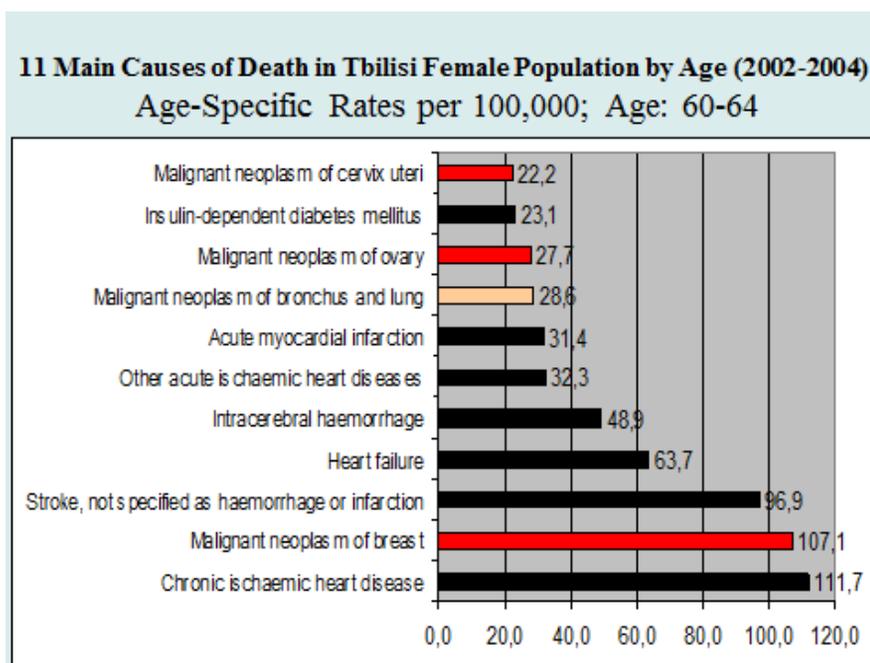
In the structure of death in Tbilisi's female population in the age group: 50-54, 4 out of 10 main causes were cancers of four forms of reproductive system, and five were presented by circulatory system. According to the structure of death in women of this age, cancer was presented in the following sites: I – breast (90.2%), VII-VIII – Cervix Uteri (18.2%) and Ovary (18.2%), X – Corpus Uteri (12.2%). It should be mentioned that the frequency of breast cancer is 1.9 times more than heart failure (46.9%), which ranked second in the cases of death in women of this age. The frequency of cancer mortality (46.0%) was first, which was 1.2 times more than the diseases of circulatory system (37.9%) which ranked second and 15.3 times more than the diseases of digestive system (3.0%). In 8.7% of fatal cases in women aged 50-54, death was caused by other forms of disease (Chart 9).

Chart 10



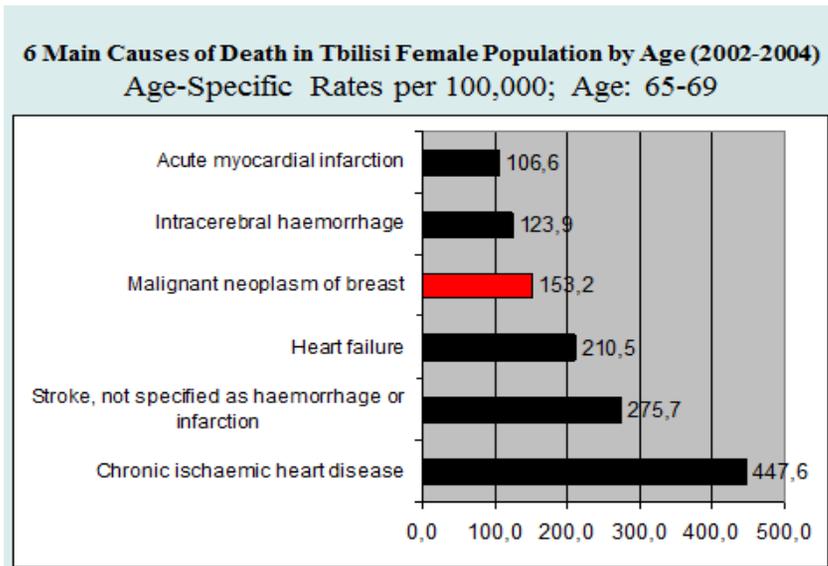
In the structure of death in Tbilisi's female population in the age group: 55-59, breast (152.9%) and ovary (39.0%) cancers ranked first and seventh respectively in 7 main causes. It should be noted that the frequency of breast cancer-related death in women of this age was 1.9 times more than chronic ischemic heart disease (80.8%) which ranked second in this structure. In women of this age, 47.2% of mortality were connected with cancer which was first in the structure of death causes. The frequency of cancer-related deaths was 1.2 times more than the diseases of circulatory system (38.7%) which ranked second. In women of this age, 2.4% of mortality was connected with the diseases of digestion system, 2.0% - with external causes. 5.1% of fatal cases in women of age group: 55-59, the death was caused by other diseases (Chart 10).

Chart 11



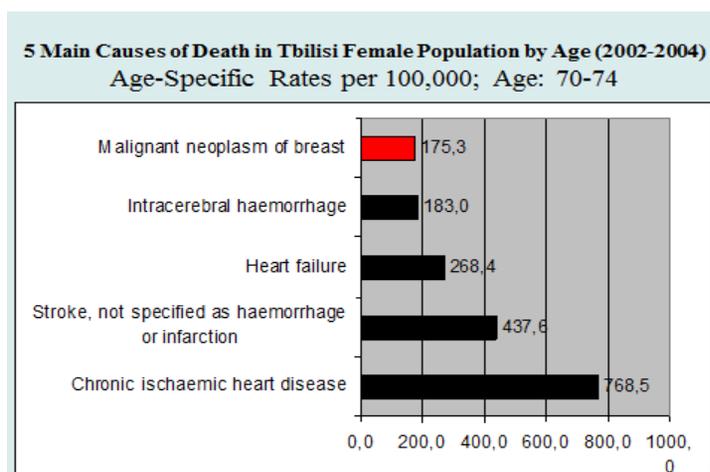
In the structure of death in Tbilisi's female population in the age group: 60-64, 4 out of 11 causes of death were different forms of cancer, three of which were three forms of reproductive system. In the structure of death in women of this age, malignant neoplasm was presented in the following forms: the second was breast (107.1%), the eighth –lung (28.6%), the ninth –ovary (27.7%) and the eleventh - cervix uteri (22.2%). It should be noted that the frequency of breast cancer-related mortality in women of this age group was just insignificantly less than the chronic ischemic heart disease (111.7%), which ranked first in the structure. The share of cancer caused deaths (36.6%) was just 1.3 times less than the diseases of circulatory system (48.7%) which was first in the death structure, while it was 7.3 times more than endocrinology and metabolic diseases (5.0%), which ranked third. 7.0% of mortality in women of age group: 60-64 were caused by other diseases and the causes of 2.7% of deaths were not identified at all (Chart 11).

Chart 12



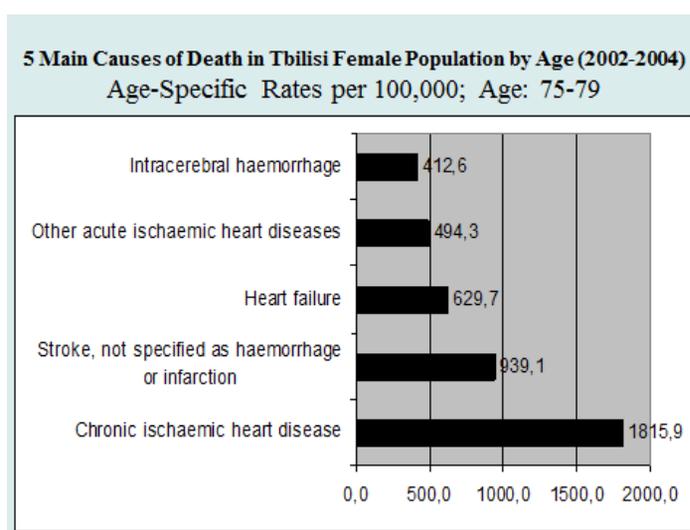
In the structure of death in Tbilisi's female population in the age group: 65-69, breast cancer (153.2%) ranks only fourth in the main causes of death. The share of deaths caused by cancer (24.9%) was 2.5 times less than the diseases of circulatory system (61.6%) which was first in the death structure, while it was 5.2 times more than endocrinology and metabolic diseases (4.8%), which ranked third. In women of this age, 2.1% of deaths were connected with the diseases of digestion system, 4.3% - with other diseases and 2.5% of the causes were not identified at all (Chart 12).

Chart 13



In the structure of death in Tbilisi’s female population in the age group: 70-74, breast cancer (175.3%) ranked only fifth in the main causes of death. The share of cancer-caused mortality (18.6%) was 3.8 times less than the diseases of circulatory system (70.6%) which ranked first in the death structure, while it was 4.5 times more than endocrinology and metabolic diseases (4.1%), which ranked third. In women of this age, 2.2% of deaths were connected with the diseases of digestion system, 2.7% - with other diseases and 1.7% of the causes were not identified at all (Chart 13).

Chart 14



In the structure of death in Tbilisi's female population at the age of 75-79, breast cancer is not included in the five main causes of death. The share of breast cancer-related death is reduced to 12.2% and was 6.5 times less than the diseases of circulatory system (79.4%), which ranked first and 4.2 times more than endocrinology and metabolic diseases (2.9%), which ranked third. In women of 75-79, 1.4% of mortality were caused by diseases of digestive system, 2.0% - by other diseases, and 2.1% of causes were not identified at all (Chart 14).

In the structure of death in Tbilisi's female population aged 80-84, breast cancer (215.6%) ranks tenth in 10 main causes of mortality. The share of death caused by cancer is reduced to 5.0% and is 17.2 times less than the diseases of circulatory system, which ranked first and whose share reaches its peak and constitutes 86.0%. The share of endocrine and metabolic diseases, which ranked third, is 1.6%. Death caused by respiratory and digestive systems was registered with the same index – 0.7%.

In the death structure in Tbilisi's female population of age group: 85 and more, breast cancer (185.4%) ranks twelfth. The share of cancer-related death is reduced to 2.6% and is 34 times less than the diseases of circulatory system which ranks first, whose share reaches its peak and makes up 88.3%.

The mortality of Tbilisi population caused by cancer of reproductive system: in the structure of death caused by cancer in Tbilisi's female population, nearly half of the death cases (45.8%) come on organs of reproductive system, including: breast – 28.4%, ovary – 6.4%, cervix uteri – 5.6%, corpus uteri – 5.4%. In 2002-2004, there were 845 registered cases of mortality caused by breast cancer, in other words, each year, 48 per 100 000 women in the capital died of this cause according to crude rates, 33 women died according to Age-Standardized Rate (world standard) and 43 - according to Age-Adjusted Rate (Tbilisi Standard).

In the structure of deaths caused by cancer in women over 25, breast cancer ranks first. At the same time, at a later period, 35-59, breast cancer is again the first in the structure of different causes of death. At 60

and more, breast cancer moves to the 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup> and, at 80, to the 10<sup>th</sup> place.

In the 25-year-period (35-59), breast is the main form of cancer and it represents the main cause of death in Tbilisi's female population! Except breast, the following organs of reproductive system belong to 10 mainly affected organs: ovary, cervix uteri and corpus uteri.

### *Summary*

#### *Breast cancer burden in Tbilisi*

In the structure of cancer diseases among women, the leading part belongs to breast cancer. The issue of breast cancer has long gone beyond the frames of healthcare and acquired a vital social importance that is why the struggle against breast cancer is the first and foremost concern for healthcare and social sphere.

According to GLOBOCAN (2013), in 2008, 1 384 000 new cases of breast cancer incidence and 458 000 cases of mortality were registered worldwide.

At the same time, people usually get cancer at the optimal age of their professional and creative development (45-64), when their activity has the greatest effect. Therefore, cancer does huge financial harm to the country's economy and prevents the speed of its development.

Due to social orientation and economic effectiveness, prevention of disease and early diagnostics are regarded to be the priority concerns of the XXI century by World Health Organization (WHO, Geneva). According to World Health Organization, the present level of medical development makes it possible to reduce cancer incidence by one-third, one-third of the people suffering from cancer are potentially curable, and in one-third of the cases, adequate palliative care makes it possible to prolong the patients' lives and improve their life quality.

In order to specify the number of cancer incidence and the frequency of cancer mortality, there has been a descriptive epidemiological research in Tbilisi.

During a 13-year period (1998-2010), 12 913 cases of breast cancer were registered in Tbilisi.

According to crude rates, in Tbilisi, during a 13-year period (1998-2010), 167.4 per 100 000 women got cancer each year. Besides, according to crude rates in dynamics, compared to 1998-2002, in 2003-2007 and 2008-2010, there was an increase in breast cancer incidence: from 149.9% to 181.5% and 173% respectively.

According to Age-Standardized Rates (ASR), in Tbilisi, each year during a 13-year period (1998-2010), 122.9 per 100 000 women got breast cancer (95% CI ASR, 119,4-126,4). At the same time, according to Age-Standardized Rates (ASR) in dynamics, compared to 1998-2002, in 2003-2007 and 2008-2010, there was an increase in the number of breast cancer: from 109.6% (95% CI ASR, 104,9-114,3) to 134.2% (95% CI ASR, 128,1-140,3) and 126.4% (95% CI ASR, 118,8-134,0) respectively.

After 1988-1992, while comparing periods with 10-year intervals, there was a notable increase in breast cancer (1988-1992: ASR=35,7; 95% CI=33,9-37,5; 1998-2002: ASR=109,6;95% CI=104,9-114,3). It is true that from 1998-2002, the speed decreased a little, but it continued to steadily increase until 2008-2010 (2008-2010: ASR=126,4; 95% CI=118,8-134,0).

According to SRR, compared to 1988-1992, in 1998-2002, cases of breast cancer increased 3 times (SRR=3,1; 95% CISRR =2,8-3,5), and, compared to 1988-1992, in 2008-2010 it increased 3.5 times (SRR=3,5; 95% CISRR=3,1-4,0). This tendency was preserved in 2008-2010, compared to 1998-2002, though there was a decrease in cancer of this form (SRR=1,2; 95% CISRR=1,1-1,3).

According to SIR, compared to 1988-1992, in 1998-2002, breast cancer incidence increased by 205% (SIR =305;95% CISIR=296,4-314,3), and, compared to 1988-1992, in 2008-2010 – by 253% (SIR =353;95% CISIR=340,5-365,4). This tendency remained in 2008-2010 compared to 1998-202, though there was a fall in the number of cancer of this form (SIR =116;95% CISIR=111,5-119,7).

According to Age-Adjusted Rates (AAR) (Tbilisi Standard, 2002), every year during a 13-year period (1998-2010), 158.2 per 100 000 women

got breast cancer in Tbilisi. Besides, according to Age-Adjusted Rates (AAR) in dynamics, compared to 1998-2002, in 2003-2007 and 2008-2010, there was an increase in breast cancer incidence from 140.1% to 160.7%.

According to Truncated Age-Standardized Rates (TASR<sub>30-69</sub>), every year during a 13-year period (1998-2010), 269.5 (95% CI=250,6-288,3) women of age group:30-69 per 100 000 got breast cancer in Tbilisi. Besides, according to Truncated Age-Standardized Rates (TASR) in dynamics, compared to 1998-2002, in 2008-2010, in the age group: 30-69, there was an increase in the number of breast cancer: from 239.1% (95% CITASR =221,5-256,8) to 264.9%(95% CITASR =245,7-284,1).

The Cumulative Risk (CR<sub>0-74</sub>) of breast cancer in Tbilisi's female population during a 13-year period (1998-2010), made up 13.1%. Besides, in dynamics, compared to 1998-2002, in 2003-2007, there was an increase in Cumulative Risk (CR<sub>0-74</sub>) of breast cancer: from 11.8% (95% CICR<sub>0-74</sub>= 11,1-12,1) to 14.3% (95% CICR<sub>0-74</sub>= 13,3-14,7).

In 2002-2004, there were 16 705 cases of deaths registered in Tbilisi's female population. The average life span in Tbilisi's female population made up 70 years.

Deaths caused by malignant neoplasm ranked second in the structure of death after circulatory system and its share made up 18%.

Nine out of ten main death causes in Tbilisi's female population are connected with the diseases of circulatory system. The main cause of death is also breast cancer (ICD-10: C50), which ranks fourth in 10 main causes of death in Tbilisi's female population and its share makes up 5% of cancer-related deaths.

In 2002-2004, there were 845 registered deaths caused by breast cancer in Tbilisi's female population, or, annually 48 per 100 000 women die according to crude rates, 33 women die according to Age Standardized Rates, and 43 women - according to Age-Adjusted Rates (Tbilisi Standard).

The structure of death caused by cancer in Tbilisi's female population in 2002-2004 was the following (10 main forms according to Age-Standardized Rates per 100 000 women): 1. breast – 33.2% ; 2. ovary –

7.5% ; 3. lung – 7.3% ; 4. stomach – 6.6% ; 5. cervix uteri – 6.5% ; 6. corpus uteri – 6.1% ; 7. rectum – 4.9% ; 8. liver – 4.1% ; 9. colon - 3.6% ; 10. pancreas – 3.6% .

Nearly half (45.8%) of cancer-related deaths in Tbilisi's female population are of organs of reproductive system, including: breast – 28.4%, ovary – 6.4%, cervix uteri – 5.6%, corpus uteri – 5.4%.

In the structure of 5 main causes of death in women aged 30-34, alongside diseases of circulatory system, breast (9.1%) and cervix uteri (3.0%) cancers rank second and fifth respectively. 29.4% of mortality in women of this age were connected with cancer (ranking first), and 28.3% - with the diseases of circulatory system (ranking second).

In the structure death in Tbilisi's female population aged 35-39, after studying non-verified cases of mortality, among the 5 main causes of death, breast (8.5%) and cervix uteri (4.3%) cancers ranked first and fourth, respectively. About 37.6% of deaths in women of this age were caused by cancer. In the structure of death causes, cancer was the first. The frequency of cancer related deaths was 1.9 times more than the diseases of circulatory system which ranked second (19.6%) and 5.2 times more than infectious diseases which ranked third (7.2%).

In the structure of death in Tbilisi's female population aged 40-44, among 5 main causes of death, breast (29.6%) and cervix uteri (15.5%) cancers rank first and second, respectively. About 43.6% of deaths in women of this age were connected with cancer, which ranked first in the structure of death causes. The frequency of cancer-related deaths was 1.7 times more than the diseases of circulatory system which ranked second (25.6%).

In the structure death in Tbilisi's female population aged 45-49, among 5 main causes of death, breast (29.6%) and cervix utery (15.5%) cancers ranked first and fifth, respectively. About 43.6% of deaths in women of this age were connected with cancer, which ranked first in the structure of death causes. The frequency of deaths caused by cancer was 1.7 times more than the diseases of circulatory system which ranked second (25.6%).

In the structure of death in Tbilisi's female population aged 50-54, among the 10 main causes of death, four of them were four different forms of cancer of the organs of reproductive system, five – the diseases of circulatory system. According to ranks in the structure of death causes in women of this age, cancer of reproductive system was presented in the following forms: I – breast (90.2%), VII-VIII – cervix uteri (18.2%) and ovary (18.2%), X – corpus uteri (12.2%). It should be noted that in women of this age, the frequency of cancer-related deaths was 1.9 times more than those caused by heart failure which ranked second (46.9%). The frequency of cancer-related mortality (46.0%) ranked first, it was 1.2 times more than the diseases of circulatory system which ranked second (37.9%) and 15.3 times more than the diseases of digestive system which ranked third (3.0%).

In the structure of death in Tbilisi's female population aged 55-59, among 7 main causes of death, breast (152.9%) and ovary (39.0%) cancers ranked first and seventh, respectively. It should be noted that the frequency of cancer-related deaths was 1.9 times more than chronic ischemia heart disease (80.8%) which ranked second among causes of death in women of this age. About 47.2% of deaths in women of this age were connected with cancer that ranked first in the structure of death causes. The frequency of cancer mortality was 1.2 times more than the diseases of circulatory system which ranked second (38.7%).

In the structure of death in Tbilisi's female population aged 60-64, four out of 11 main causes of death were cancer and three of them were 3 forms of cancer of reproductive system. In the structure of death in women of this age, according to ranks, malignant neoplasm was presented with the following forms: II – breast (107.1%), VIII – lung (28.6%), IX – ovary (27.7%) and XI – cervix uteri (22.2%). It should be noted that the frequency of cancer mortality was just insignificantly less than chronic ischemia heart disease, which ranked first (111.7%) in women of this age. The share of cancer mortality (36.6%) was not much behind (1.3 times) the diseases of circulatory system which ranked first (48.7%), while it was 7.3 times more than endocrine and metabolic diseases (5.0%) which were the third.

In the structure of death in Tbilisi's female population in the age group: 65-69, breast cancer (153.2%) is only the 4<sup>th</sup> in the main causes of death.

The share of deaths caused by cancer (24.9%) was 2.5 times less than the diseases of circulatory system (61.6%) which ranked first in the death structure, while it was 5.2 times more than endocrinology and metabolic diseases (4.8%), which ranked third.

In the structure of death in Tbilisi's female population in the age group: 70-74, breast cancer (175.3%) only ranks fifth in the main causes of death. The share of cancer mortality (18.6%) was 3.8 times less than the diseases of circulatory system (70.6%), which ranked first in the death structure, while it was 4.5 times more than endocrinology and metabolic diseases (4.1%), which were the third.

In the structure of death in Tbilisi's female population at the age of 75-79, breast cancer is not included in the five main causes of death. The share of breast cancer mortality was reduced to 12.2% and was 6.5 times less than the diseases of circulatory system (79.4%), which ranked first and 4.2 times more than endocrinology and metabolic diseases (2.9%). In the structure of death in Tbilisi's female population aged 80-84, breast cancer (215.6%) ranked tenth in 10 main causes of death. The share of death caused by cancer is reduced to 5.0% and is 17.2 times less than the diseases of circulatory system, which rank first and whose share reaches its peak and makes up 86.0%. The share of endocrine and metabolic diseases, which rank third, is 1.6%.

In the structure of death in Tbilisi's female population of age group: 85 and more, breast cancer (185.4%) is only the 12<sup>th</sup>. The share of cancer-related death is reduced to 2.6% and is 34 times less than the diseases of circulatory system, which ranked first, whose share reaches its peak and makes up 88.3%.

The mortality of Tbilisi population caused by cancer of reproductive system: in the structure of death caused by cancer in Tbilisi's female population, nearly half of the death cases (45.8%) come on organs of reproductive system, including: breast – 28.4%, ovary – 6.4%, cervix uteri – 5.6%, corpus uteri – 5.4%. In 2002-2004, there were 845 registered cases of breast cancer mortality, in other words, every year, 48 per 100 000 women died of this cause according to crude rates, 33 women died according to Age-Standardized Rate (world standard) and 43 - according to Age-Adjusted Rates (Tbilisi Standard).

In the structure of cancer-related deaths in women over 25, breast cancer ranks first. At the same time, at a later period, 35-59, breast cancer again ranks first in the structure of different causes of death. At 60 and more, breast cancer moves to the 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup> and, at 80, to the 10<sup>th</sup> place.

In the 25-year-period (35-59), breast is the main form of cancer and it represents the main cause of mortality in Tbilisi's female population!

### *Conclusions*

The issue of breast cancer in Tbilisi's female population is an important medical and social problem.

The frequency of breast cancer incidence (ASR=123% ; AAR=158%) and mortality (ASR=33% ; AAR=43%) corresponds to the average index of developed countries of the world. The ratio of disease and death (SRR) made up 0.27, less than world average index (SRR=0.35), which is also characteristic for developed countries. Besides, according to both indicators in dynamics, there was an increase in cancer incidence.

In Tbilisi, during a 13-year period (1998-2010) there were 12 913 registered cases of breast cancer.

According to SRR, compared to 1988-1992, in 1998-2002, the number of breast cancer rose by 3 times (SRR=3,1; 95% CISRR =2,8-3,5) and in 2008-2010, compared to 1988-1992 – by 3.5 times (SRR=3,5; 95% CISRR=3,1-4,0).

According to SIR, compared to 1988-1992, in 1998-2002, the number of breast cancer increased by 205% (SIR =305;95% CISIR=296,4-314,3) and in 2008-2010, compared to 1988-1992 – by 253% (SIR =353;95% CISIR=340,5-365,4).

According to Truncated Age-Standardized Rates (TASR<sub>30-69</sub>), during a 13-year period (1998-2010), in the age group: 30-69, 269.5 (95% CI=250,6-288.3) per 100 000 women got breast cancer each year. Cumulative Risk (CR<sub>0-74</sub>) of breast cancer in Tbilisi's female population made up 13.1%. Besides, according to these indicators in dynamics, there was an increase in the frequency of breast cancer incidence.

In 2002-2004, the deaths caused by malignant neoplasm of breast in Tbilisi's female population ranked second after the diseases of circulatory system and its share in death structure was 18%.

According to systems, in the structure of death causes in Tbilisi's female population, cancer of genitourinary system ranked first (56.9%) and its share made up 50%.

In 2002-2004, there were 845 registered cases of breast cancer-related deaths, in other words, every year, according to crude rates, 48 per 100 000 Tbilisi's female citizens died of this cause, according to Age-Standardized Rates (World Standard) – 33, and according to Age-Adjusted Rates (Tbilisi Standard) - 43.

In the structure of deaths caused by cancer in women over 25, breast cancer ranks first. At the same time, at a later period, 35-59, breast cancer ranks first in the structure of different causes of death. At 60 and more, breast cancer moves to the 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup> and, at 80, to the 10<sup>th</sup> place.

### *Recommendations*

To control breast cancer, the first urgent task is to create population registry of cancer according to international requirements (IACR, Lyon; ENCR, Lyon) and to collect data about patients in follow-up regime, to renew electronic data bases, to hold descriptive analysis and epidemiological examination;

To increase the efficiency of screening programs and to reduce the number of breast cancer incidence in Tbilisi, it is recommended to carry out additional research, namely, to estimate the role and efficiency of ultrasonography of breast during the screening process.

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