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Two Years of Pandemic (Georgian Perspectives)

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Abstract

Modern society faces many challenges, including the pandemic caused by COVID-19, which has changed many aspects of public life. The article discusses the impact of COVID-19 on Georgia's economy and demography and the challenges the country faces in the post-pandemic situation. The pandemic had a burdensome impact on the already fragile economy of Georgia. This has affected tourism, putting people employed in the tourism and hospitality sector under severe financial pressure. Small businesses were affected, unemployment increased, and a large migration followed. The pandemic has burdened the health sector and increased the death rate. The country's economy is trying to regain its strength post-pandemic. However, the region has now found itself the harbinger of another challenge: the subject of a separate study.

Keywords: COVID-19, Demography, Tourism. Economy, Georgia

Introduction

Any epidemic, especially a pandemic, does not end without a trace and leaves a more or less deep mark on the economies of the countries affected. After that, it directly depends on the fragility of the country's economy to either eliminate this footprint or live with it. Pandemics of the historical past are proof of this [1].

The first officially confirmed case of COVID-19 was recorded on December 31, 2019 [2]. On March 1, 2020, it was officially declared a global pandemic. The outbreak of COVID-19 has caused some economic shocks around the world. These restrictions (quarantine, travel bans and restrictions, social distance enforcement, and lockdown—closure of public places and cancellation of public events) affected the economies of different countries differently. Some economies are more fragile at such times, and others are more resilient.

Tourism was particularly vulnerable to the pandemic [3, 4]. It took longer than expected to restore it worldwide [5]. In countries where tourism was still developing, weaknesses were especially highlighted, and specialists began to develop future strategies for their elimination [6].

When discussing the effects of an epidemic, the first thing that comes to mind is the negative economic consequences and disruption of the normal rhythm of society's life. However, not everything is defined only from an opposing point of view. For example, a study in the USA confirms a decrease in anthropogenic (NOx) emissions in March–June 2020, which can be explained by the economy's slowdown related to COVID-19 [7].

Georgia is no exception. COVID-19 has affected the economy in large numbers and changed many social aspects of the country. The article attempts to gather existing statistical data and publications published during the pandemic to analyse the impact of COVID-19 on Georgia's economy, tourism, demography, and other aspects of public life.

Methods and Materials

The research is based on statistical data from various sources and literature analysis. Maps were created in Arc map 10.8 and Adobe Illustrator to illustrate the data.

Results

The analysis of the data revealed that the pandemic had a severe impact on the population of Georgia. These influences manifested themselves in almost all aspects of life. Figure 1 shows the essential decisions and actions taken at the beginning of the pandemic by the government. The scenario discussed in detail below is the result of the backlash inside and outside the country.

Demography

In 2020 and 2021, particularly in 2020, negative natural population growth was recorded in Georgia for the first time since the 2014 Population Census. The natural population decline was approximately

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4,000 people, while in 2021 the natural population decline was around 14,000. The phenomenon continues and results from the population decline tendency in Georgia for the last several decades due to natural population decline and emigration (negative net migration). However, the natural population change data according to the type of settlement (urban and rural settlements) shows that in 2020 and 2021, the natural decline was recorded both in urban and rural settlements, while in 2016-2019, the natural population change in urban settlements was mainly stable, with an annual natural increase of 4-5 thousand being recorded (Table 1).

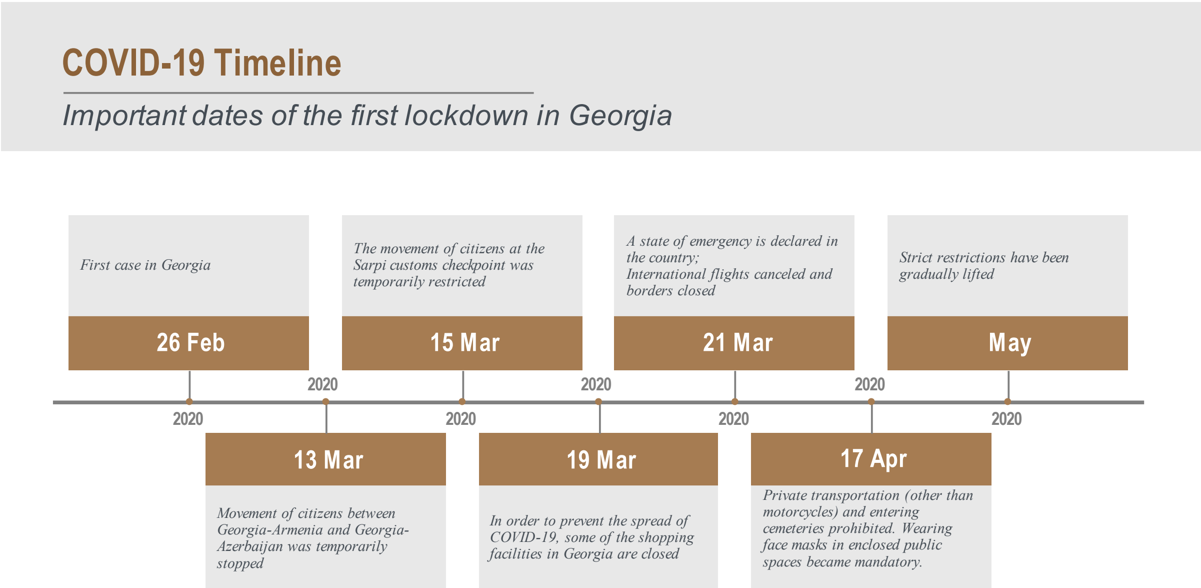


Figure 1. COVID-19 timeline in Georgia during the first lockdown. Data source [8]

The increased number of deaths essentially caused the mentioned. Since the 2014 Population Census, Georgia's annual number of deaths has been mostly stable with a slight reduction tendency. However, in 2020 and 2021, the number of deaths in Georgia significantly increased. In 2021, almost 60 thousand people died in Georgia, which is 13 thousand more compared to 2019 (Table 2). This increase was remarkably well observed in urban settlements, although a growing tendency was also recorded in rural settlements.

Table 1. Natural population increase by settlement type. Data source [9]

Year	Urban Settlement	Rural Settlement
2015	7759	2369
2016	5439	359
2017	5000	471
2018	5469	-855
2019	4583	-2946
2020	859	-4876
2021	-6027	-7933

This rapid and significant increase in the number of deaths should be considered a result of the COVID-19 pandemic. According to National Statistics Office of Georgia (Geostat) data, in 2020 and 2021, the number of COVID-19-related deaths was 13,867, or 12.6% of the two-year cumulative deaths. The mentioned share was even higher in 2021 and accounted for almost 19% of all deaths recorded in Georgia. In addition, it is noteworthy that in 2020–2021, COVID-19 was the cause of death in 15% of death cases in urban settlements, while the share of COVID-19-related deaths was 9.6% in rural settlements.

For more details, the number of COVID-19-related deaths in 2020 was 2,587, of which 1,458 were males and 1,129 were females. In 2021, the number increased to 11,280, including 5,213 males and 6,067 females. Therefore, the number of COVID-19-related deaths in Georgia was higher in 2021 compared to 2020 by approximately 8,700 people [10].

In this regard, it is also essential to analyse the change in the number of deaths in 2019–2021 in terms of sex and age, which would enable us to indirectly assess the possible effect of COVID-19 on death based on gender and age.

The comparative analysis of the 2019–2021 death data reveals that in the mentioned period, the death rate increased in all age groups for both sexes, except the 0–14 age group. The increased mortality was highest in the 45 and older age groups, particularly in the 65-84 age group, and the increase was almost 32%. Based on the age-sex analysis, the increase in mortality was exceptionally high in the 65–84 and 85+ age groups for males. In the case of females, the excess mortality was significant in the 45–64 age group, and the number of deaths increased by 48%. Regarding gender, it should also be noted that the difference between the mortality growth rate for men and women was almost 30% in the 45-64 age groups, which is a huge difference. The difference in death rates was also significant in the 25–44 age group.

Table 2. Number of Deaths by Settlement Type. Data source [9]

Year	Urban Settlement	Rural Settlement
2015	26139	22983
2016	26788	23983
2017	25326	22496
2018	24737	21787
2019	24688	21971
2020	27053	23484
2021	33497	26409

It is also noteworthy that the COVID-19 pandemic affected life expectancy as well. In 2019, the life expectancy at birth was 74.1 years; in 2021, it decreased to 71.4 years. In the case of males, the life expectancy decreased by 2.3 years, while in the case of females, the decrease was three years. Therefore, the effect of COVID-19 on life expectancy could be significant for both sexes.

Added to all this, even after introducing vaccines against COVID-19 into the country, the level of vaccination was relatively low, even among health workers [11].

Table 3. Change in Number of Deaths by Gender and Age. Data source [9]

Age Groups	2019			2021			2021/2019 (% Change)		
	Both	**Males**	**Females**	**Both**	**Males**	**Females**	**Both**	**Males**	**Females**
0-14	541	310	231	537	304	233	-0.7%	-1.9%	0.9%
15-24	277	208	69	311	236	75	12.3%	13.5%	8.7%
25-44	1,701	1,328	373	1,961	1,466	495	15.3%	10.4%	32.7%
45-64	9,439	6,829	2,610	11,967	8,101	3,866	26.8%	18.6%	48.1%
65-84	24,468	12,122	12,346	32,214	15,798	16,416	31.7%	30.3%	33.0%
85+	10,233	3,222	7,011	12,916	4,251	8,665	26.2%	31.9%	23.6%
Total	**46,659**	**24,019**	**22,640**	**59,906**	**30,156**	**29,750**	**28.4%**	**25.6%**	**31.4%**

Economics

The two years of the pandemic triggered health and economic problems in Georgia and throughout the world. This period in Georgia was characterised by economic shocks such as a raised unemployment rate, decreased foreign direct investments, and decreased gross domestic product, especially at the beginning of the spread of the coronavirus infection [12]. In the first stage of the pandemic, the major lockdown in social and economic life caused a big failure in the market mechanism of the entire country [13]. The current analysis focuses on the effects of two years of the pandemic on the economy of Georgia in a regional context.

One of the most important macroeconomic indicators is Gross Domestic Product (GDP), which is recognised and accepted internationally. According to the Geostat, GDP measures the total market value of all final goods and services produced during a specific year.

The data from Geostat illustrates that in the last decade, just before the spread of the coronavirus infection, the real GDP growth rate was always positive. The GDP growth rate decreased from 2011 until 2016, but after 2016, it started to increase, and in 2019, it was equal to 5%. This is its highest level in the last seven years. In 2020, the actual growth rate of GDP was negative and equaled equalled -6.8 %. This data shows that during the pandemic time in 2020, Georgia had an economic recession [15]. From the beginning of the pandemic, according to different restrictions, there was little demand for various items [16]. Some companies closed their activities, and many businesses tried to put off investments and everything, leading to a decline in GDP [13]. Although the economy is beginning to recover, in 2021, the situation improved, and this indicator again showed a positive rate of 10.4%. (fig. 2). The present has largely remedied the severe effects of the COVID-19 depression, but this crisis has not yet been fully fixed [17].

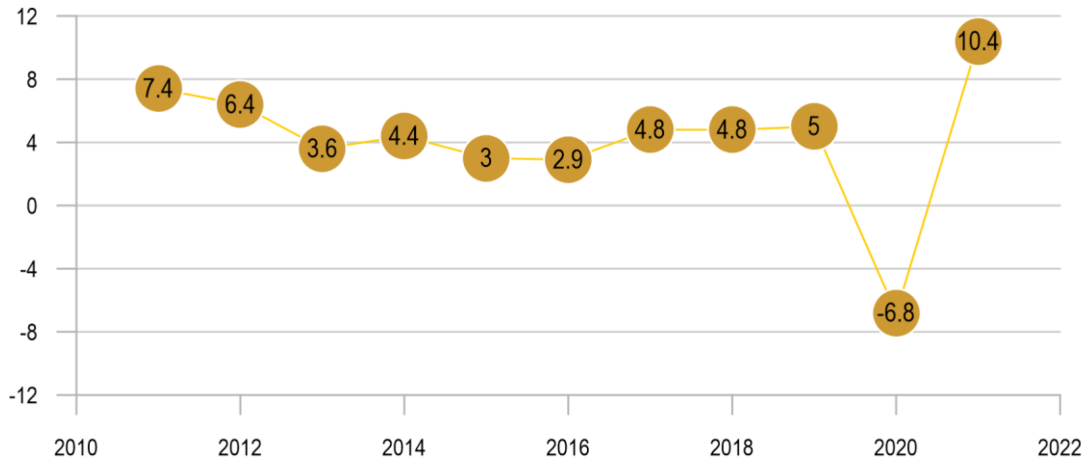


Figure 2. Real GDP growth rates compared to the same period of the previous year %. Data source [14]

The most damaged sector in Georgia and different regions during the pandemic was the service sector, especially accommodation and food service activities [12]. According to data from Geostat, in 2020, the share of GDP of economic activities such as accommodation and food service in comparison with the previous year declined sharply, almost 46%, but some economic sectors increased, including mining and quarrying; household activities as employers; undifferentiated goods and services producing activities of the household for own use; and education.

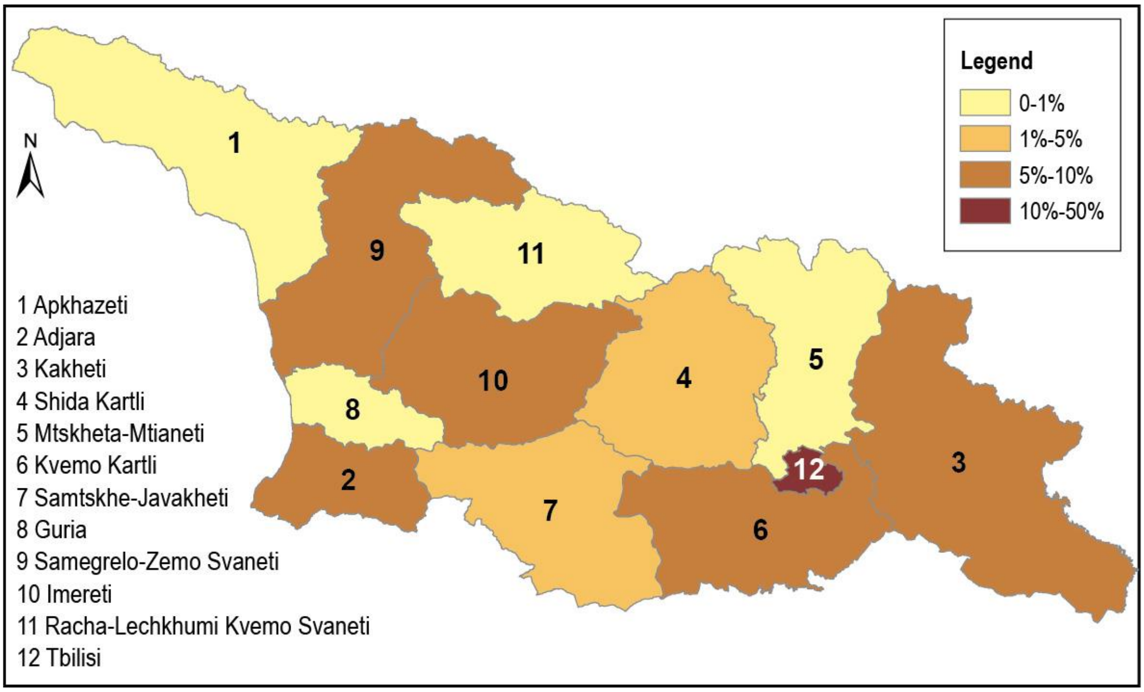


Figure 3. GDP share by regions in 2020. Data source [14].

In Georgia, the share of GDP among the regions is unequal. As evident from Fig. 3, the largest share of GDP by region in 2020 is held by Tbilisi, followed by the Adjara Autonomous Republic (AR) and Imereti in third place. Activities such as wholesale and retail trade, repair of motor vehicles and motorcycles, real estate activities, construction, transport, and storage contribute 54% of the GDP in Tbilisi. During the pandemic, Tbilisi's three most damaged economic activities were: 1. accommodation and food service; 2. administrative and support service; 3. water supply, sewerage, waste management, and remediation activities; In the Adjara AR, the central part of GDP was concentrated in real estate activities (16.2%), followed by construction (14%), wholesale and retail trade, and repair of motor vehicles and motorcycles (0.1%). The most damaged activities in Adjara were: 1. accommodation and food service; 2. administrative and support service; and 3. construction. In Imereti, the main components of the GDP were: agriculture, forestry, and fishing (14%); manufacturing (12.9%); and real estate (12.2%). Furthermore, in Imereti, the most damaged sectors were: 1. administrative and support services; 2. water supply; sewerage, waste management, and remediation activities; and 3. information and communication.

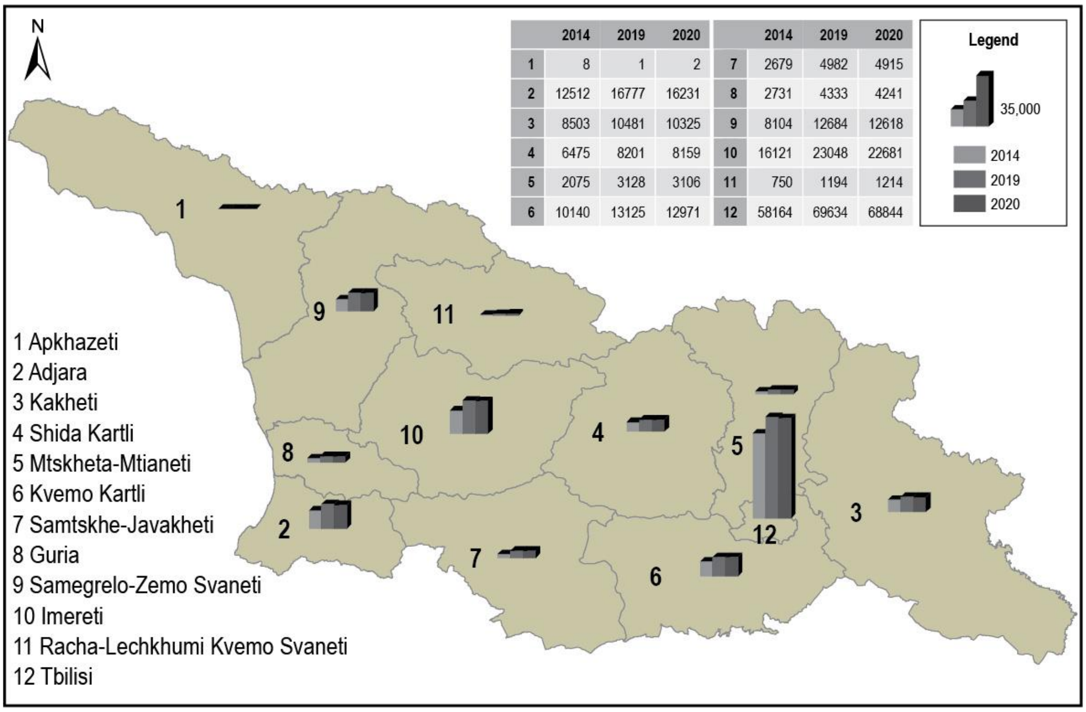


Figure 4. Number of active enterprises by regions. Data source [22]

Georgia's small and medium businesses were expanding firmly prior to the pandemic. Data from Geostat show that, before the pandemic, from 2014 to 2019, Georgia's business sector, especially production value, had substantial growth of approximately 45%. However, the COVID-19 crisis created challenges that decreased the number of active organisations. The production value of the business sector in 2020, compared with 2019, decreased, too, by approximately 3%. By the beginning of March 2020, practically all businesses will continue their activity online using various web platforms [18]. Many of them, especially in the service sector, were closed. Surveyed organisations started using digital platforms to sell their products through online channels. Enterprise sales fell due to the pandemic, whereas sales through digital channels rose [19]. The pandemic's main challenge was Lockdown, which caused a transformation in entrepreneurial activity. The feature of digital entrepreneurship that distinguishes it from traditional entrepreneurship is that the parties involved in a deal can contact each other and complete the necessary transaction on a digital platform [20]. This business started developing actively in Georgia during the pandemic [21]. The number of active enterprises in 2020 decreased by 1.4 % compared to the previous year, equaling 165,300 firms. Therefore, in the private sector, many people lost their jobs. The number of employees in the business sector in 2020 decreased due to pandemic restrictions. The rate was reduced by 7 %, equaling 703,9 thousand people.

Tbilisi has historically been the centre of the economy. Evidence from fig. 4 shows that a significant part of active enterprises, approximately 42%, concentrate in the capital of Georgia, Tbilisi, followed by Imereti -14% and Adjara AR-10%. During the pandemic in 2020, the active number of enterprises in all regions of Georgia decreased. As a result of anti-pandemic restrictions, turnover of the small enterprises in comparison with the previous year, 2019, decreased by 3%, and employed persons in this type of organization also decreased by 15%.

Compared with the previous year, the number of employed persons in 2020 in the business sector in Tbilisi significantly decreased by approximately 5% and equalled 443272 people (fig. 5), followed by Adjara and Imereti the reduction was respectively 9% and 8%.

Georgian government try to support entrepreneurship and the business environment. In this regard, it is essential to draw attention to the World Bank's "Doing Business" ranking, in which Georgia was ranked in the seventh position for its sustained improvement of the business environment over numerous cycles [24]. Also, Georgia was classified as a "Mostly Free" country in the Heritage Foundation's "Index of Economic Freedom," where it was ranked 12th in 2020 [25]. A substantial network of free trade agreements has been built by the government of Georgia [26].

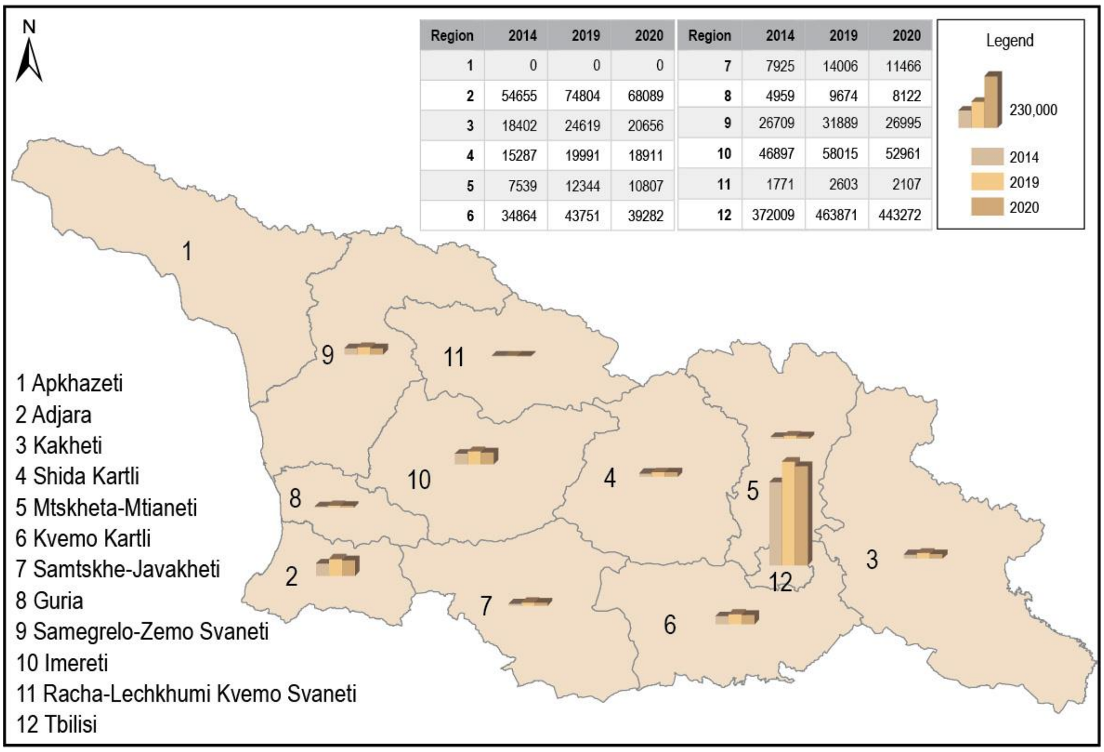


Figure 5. Number of employed persons in business by regions. Data source [23]

As evident from Fig. 6, Georgia's external trade turnover from 2016–2019 displayed a trend towards growth. During this period, it increased 1.2 times; by 2019, this indicator had reached 13.3 billion USD. In 2020, external trade turnover will comprise 11.4 billion USD. Over the previous year, there was about a 15% reduction; in 2021, this indicator increased and peaked for the last five years. Concerning import and export in 2020, compared with the previous year, these indicators fell too, respectively, by 15% and 12%, comprising 8.1 billion USD and 3.3 billion USD.

Georgia must raise the production of domestic goods that will be competitive enough to meet domestic demand. It is also essential to support industrialization, focusing on exports [28].

By the year 2020, the five most significant export products were: copper ores and concentrates (23.35% of total export), motor cars (12.08% of total export), ferroalloys (7.40% of total export), wine of fresh grapes (6.29% of total export), undenatured ethyl alcohol, spirits, liqueurs, and other spirituous beverages (3.96% of total export), while the five major export countries in 2020 were: China (14.3% of total export), Russia (13.2% of total export), Azerbaijan (13.2% of total export), Bulgaria (9.4% of total export) Turkey (5.7% of total exports). As for imports, the five main imported products were: motor cars (9.71%), copper ores and concentrates (7.23% of total import); petroleum and petroleum oils (6.19% of total import); petroleum gases and other gaseous hydrocarbons (3.91% of total import); and telephone sets, including telephones for cellular networks or other wireless networks (2.05% of total import). The five major import countries in 2020 were: Turkey (17.5% of total import); Russia (11% of total import); China (8.8% of total import); USA (6.9% of total import); and Azerbaijan (6.4% of total import).

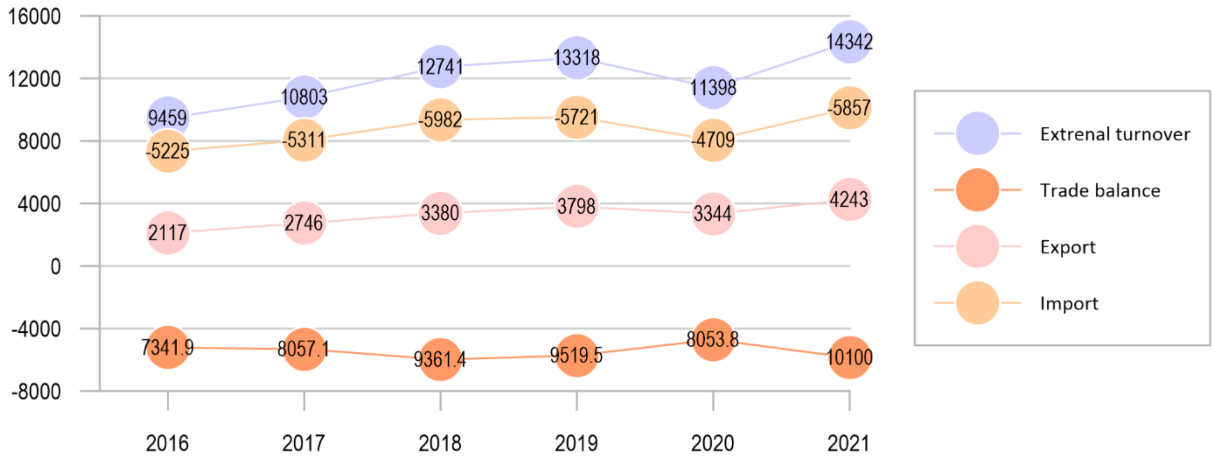


Figure 6 External Merchandise Trade. (Million USD). Data source [27]

Due to the Foreign Trade Agreement between China and Georgia [29], which was signed on May 13, 2017, business owners in Georgia are free to export their goods to China without paying extra taxes. Therefore, in 2020, China was Georgia's top exporting business partner. Georgia's foreign trade turnover was $11.34 billion in 2020, a 14.8% decline from the previous year. The value of imports dropped by 15.9% to $8.1 billion, while exports decreased by 12% to $3.34 billion. In 2020, the external merchandise trade indicators were entirely changed, caused mainly by the COVID-19 pandemic. Economic and financial losses for the world economy and individual states define this period [30].

Georgia's significant challenge is the growth and development of the nation's economy, which requires active work in many areas, such as the intensification of free trade and investment processes internationally.

Since Georgia has a low rate of saving, in these types of countries, foreign direct investment is the primary driver of economic growth and recovery [26].

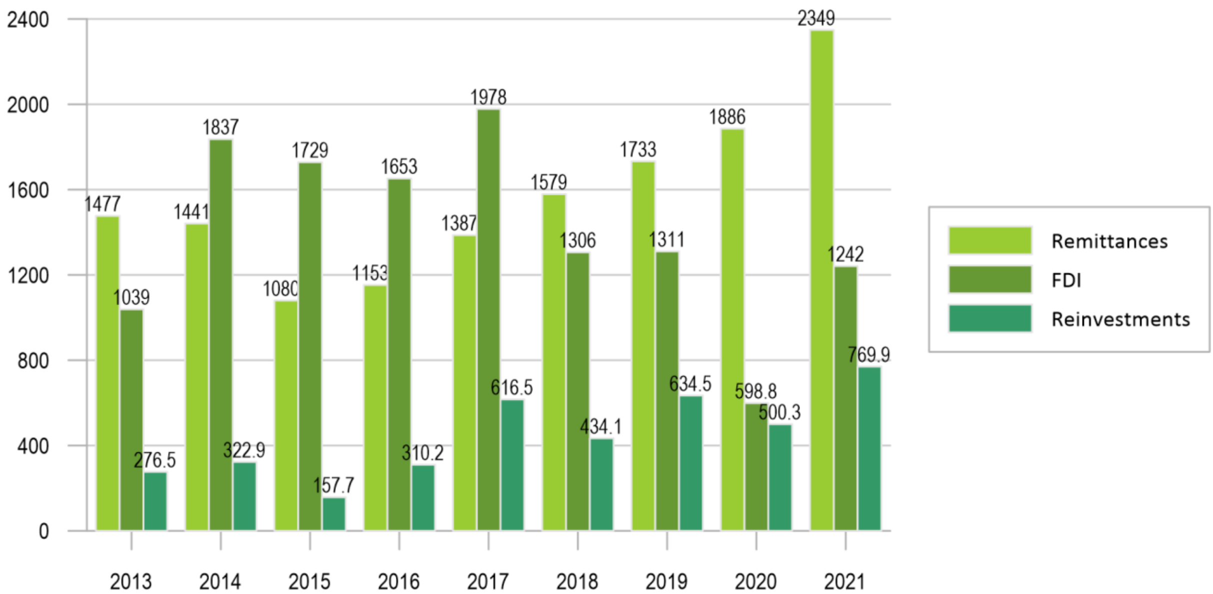


Figure 7. Dynamics of FDI, remittances and reinvestments in Georgia (Million US Dollars). Data source [31]

As evident from Fig. 7, the rate of foreign direct investment has been varying from 2013–2021. From 2017, Foreign direct investment (FDI) had a downward tendency, and in 2020 they reached their minimum of 500.3 million USD, mainly due to the pandemic, which was 54.3% less than in 2019. In 2020, the following two sectors: the financial sector (69%) and mining (16.7%) received more than half of all foreign direct investments, while the largest investor countries were: the United Kingdom (51.4% of total investment) and the Netherlands (35% of total investment); Let us talk about Georgia's geographical differences in terms of foreign direct investment. According to the Geostat, Tbilisi, Adjara AR, and Kvemo Kartli regions received substantial foreign direct investment in 2020, respectively 44.2%, 21.2%, and 13.4%, due to the unstable situation in the country. In 2020, reinvestment also decreased, but according to the data from the national bank of Georgia, remittances from 2015 have been increasing and in 2021 reached their high point. 76.52 % of all money transfers in October of 2022 came from Russia – 59.62%; Italy – 7.12%; the USA -5.97%; Greece – 3.81%. In Georgia, remittances continue to be crucial for stabilising the economy [32].

On November 19, 2020, the Georgian government approved the state initiative to increase foreign direct investment in specific economic sectors such as the production of electrical and electronic engineering products, the manufacture of aircraft parts and components, the manufacture of vehicles and equipment as well as their parts, the export of business services, the development of warehouses and logistic centres, and aircraft repair and maintenance. The programme's objective is to encourage the growth of foreign direct investments, the infusion of technology, and the creation of new jobs in the country [25].

We can infer from the information above that Georgia has had great difficulty during the pandemic: people lost their jobs, the unemployment rate has increased, and GDP, FDI, and reinvestment have significantly decreased. Despite these unfavourable facts, positive aspects, such as a surge in remittances in 2020 as they reached a high level, can also be seen. It should be noted that the Georgian government implemented innovative programmes that will help attract more foreign capital in the future, which will help create more new positions with the highest income and opportunity levels in a regional context [33].

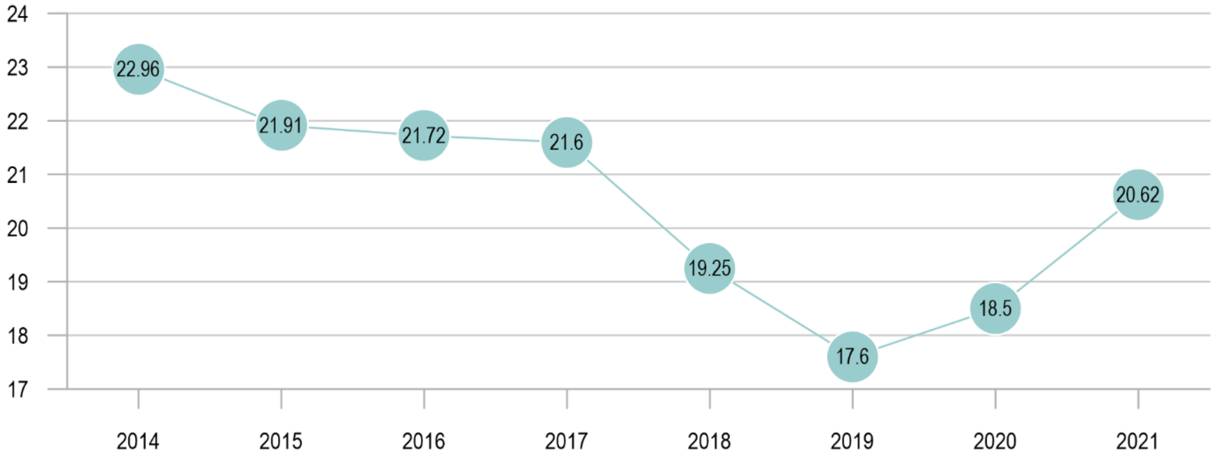


Figure 8. Unemployment rate in Georgia %. Data source [35]

Unemployment continues to be a severe social and economic problem for Georgia.

Georgia changed to the new standard of unemployment definition that the International Labour Organisation (ILO) requires. The ILO has created a new approach for calculating unemployment, which the Geostat uses. An unemployed person is 15 years of age or older, has not worked (even for one hour) for seven days before the interview, has been looking for work for the past four weeks, and is prepared to start working in the next two weeks. In particular, according to the new standard of the International Labour Organisation, the definition of unemployed covers all economically active populations. Who were: 1. "without a job," that is, not engaged in self-employment or paid work; 2. "currently available for work," meaning they could have found a job or worked for themselves throughout the reference period; 3. "seeking work," having taken particular actions recently to look for paid employment or self-employment.

It is noticeable that the economic crisis caused by the pandemic and the following limitations had a detrimental impact on Georgia's employment and unemployment rate. The official data state that the employment rate during 2019–2021 decreased from 42.7% to 40.4%. The unemployment rate is even more alarming in Georgia, and in 2021 it increased by 2.1% compared to the previous year's corresponding period, equaling 20.6%, and reached its highest point over the last four years (Fig. 8). It also should be noted that the number of economically active people fell, which could have happened because of 1) an increase in international labour migration and 2) the "ageing" of the population [34].

The unemployment in Georgia is higher for men than for women. The fig. 9 presents the unemployment by sex during 2010-2021.

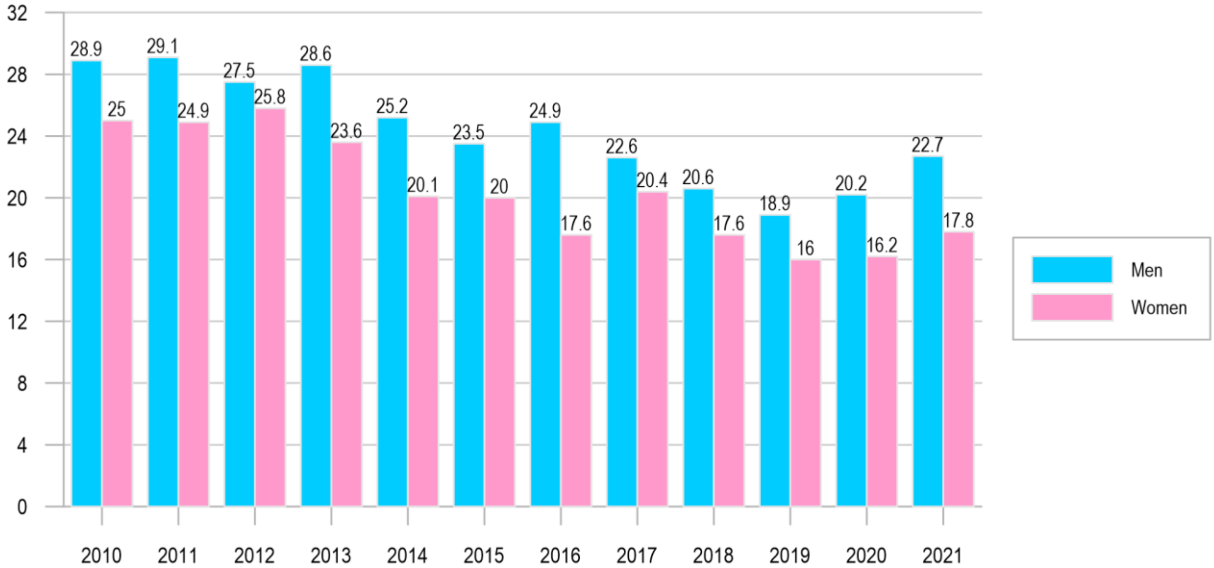
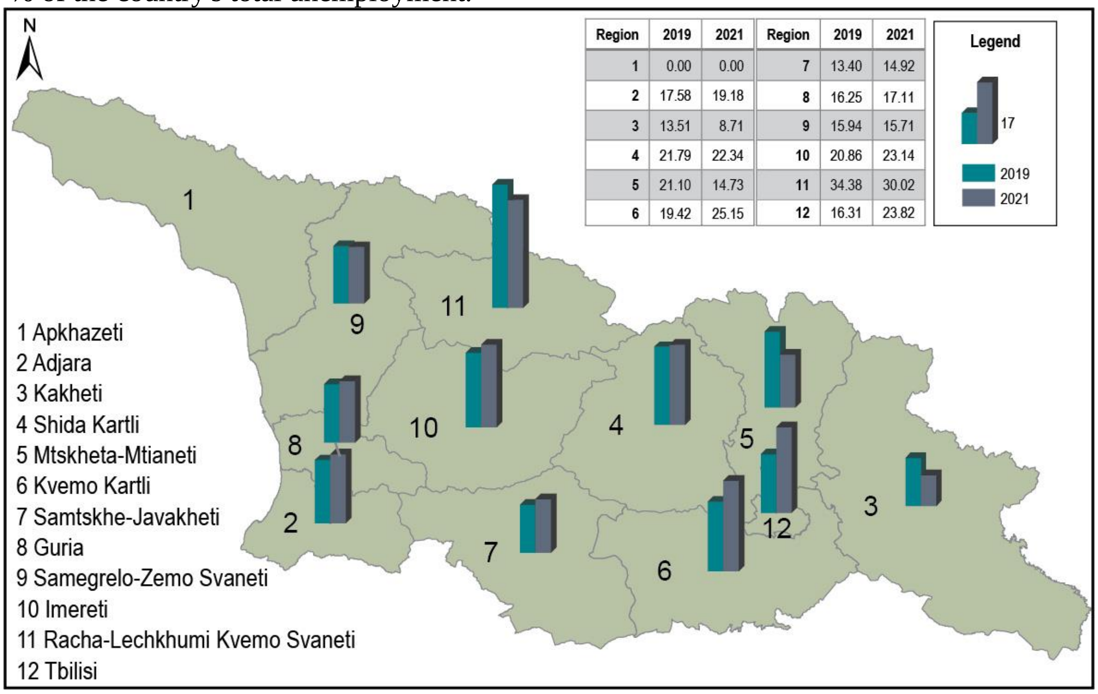


Figure 9. Unemployment rate by sex%. Data source [35]

In 2021 compared with 2019, unemployment increased for women and men by 1.8% and 3.8%, respectively. This illustrates women's motivation to pursue more and better chances during pandemics.

Additionally, there are substantial regional differences in unemployment rates. According to the Geostat, in 2021, the number of unemployed amounted to 316.2 thousand persons. Urban areas account for 65 % of the country's total unemployment.



Region	2019	2021	Region	2019	2021
1	0.00	0.00	7	13.40	14.92
2	17.58	19.18	8	16.25	17.11
3	13.51	8.71	9	15.94	15.71
4	21.79	22.34	10	20.86	23.14
5	21.10	14.73	11	34.38	30.02
6	19.42	25.15	12	16.31	23.82

Figure 10. Unemployment rate by regions (%). Data source [36]

As evidenced by Fig. 10, Tbilisi and its unemployment growth rates especially distinguish Kvemo Kartli. In 2021, about 30% of the total unemployment is in Racha-Lechkhumi and Kvemo Svaneti, followed by Kvemo Kartli (25.2%) and Tbilisi (23.8%). An extreme reduction in the number of unemployed persons in 2019–2021 was observed only in Kakheti, Mtskheta–Mtianeti, Racha–Lechkhumi, and Kvemo Svaneti. The economy of Georgia was significantly harmed by unemployment, which raised the poverty rate and exacerbated the country's economic imbalance.

It should be underlined that in order to reduce poverty in our country, we should implement an active labour market policy, which will be organised by the government, and an adequate system of social protection for unemployed persons. Such as access to healthcare services and the implementation of focused government training programmes, which help unemployed persons in the future find a good job [37].

Tourism

Despite the impact of the pandemic [38, 39], the tourism industry in Georgia is steadily returning to its old performance. According to the statistics for 2021, the number of visits by international travellers amounted to 1,881,271 (+7.7%). The number of visits by international travellers includes the number of visits made by international visitors: 1,721,242 (+13.7%), and other visits (non-tourist): 160,029 (-31.5%). Of the visits made by international visitors, 1,577,463 (+45.1%) were tourist visits (overnight visits), and 143,779 (-66.3%) were one-day visits [40].

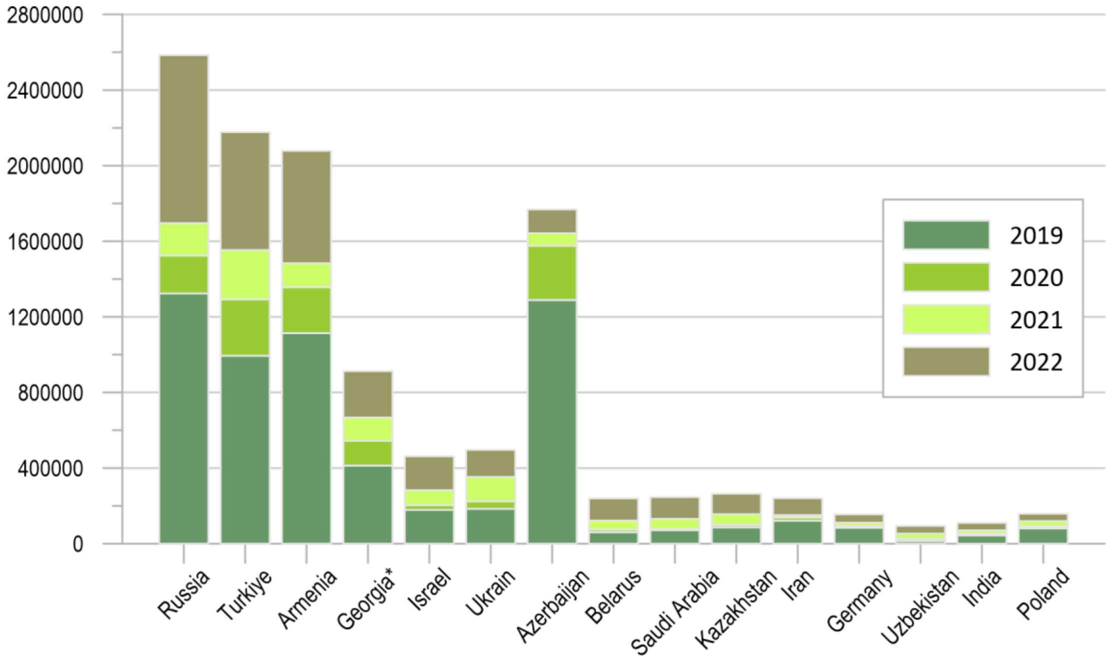


Figure 11. Visits made by international visitors 2019-2022. Data source [41]

In the second quarter of 2022, the number of international visitors reached 765.3 thousand, an increase of 189.4% compared to the same period of the previous year. In the reporting period, international visitors made 749.3 thousand tourist-type visits, which is 145.0% more than the indicator for the same period of the previous year. 81.8% of international visitors were only tourists (a tourist is a visitor who spent the night in the territory of Georgia). The share of only excursionists (an excursionist who does not spend the night in the territory of Georgia) was 14.8%, and 3.5% of visitors were both tourists and excursionists. In the second quarter of 2022, the most significant number of visitors, 147.7 thousand, was recorded from the Russian Federation, or 19.3% of the total number of visitors. Turkey is in second place with a 14.9% share, and Armenia is in third place with a 12.1% share. Accordingly, the most significant number of visits was made by citizens of the Russian Federation (175.4 thousand), Turkey (158.3 thousand), and Armenia (136.8 thousand). Most visitors (48.5%) belonged to the 31–50 age group. Women made up 37.0% of the total visitors [42].

Most international visits were made via air transport at 877,158 (51%), followed by ground transport at 826,355 (48%). The number of visits by rail and sea was 10,879 (0.6%) and 6,850 (0.4%), respectively. The busiest border was Tbilisi Airport, with 568,149 (33%). Sarfi follows it with 253,859 (14.7%), Batumi Airport with 221,853 (12.9%), Kazbegi with 220,788 (12.8%), and Sadakhlo with 125,047 (7.3%). The largest share of international visits comes from these five border checkpoints: 80.7% of all international visits.

The number of international visits from EU countries amounted to 139,157 (+96.7%). The most visits were made from Poland: 30,988 (+189.9%), Germany 21,194 (+127%), and France, 10,646 (+103.9%).

The majority of international visits were made by men, at 1,186,831 (69%), while women's visits accounted for 534,411 (31%). Representatives of the 31–50 age group made the most visits, with 885,473 (51.4%). It is followed by the 51-70 age group with 428,309 (24.9%) and the 15-30 age segment with 385,563 (22.4%)—the youngest age group, 71 and older, only accounts for 1.3% of visits, amounting to 21,897 visits.

The share of international visits in the number of international travellers has increased, and the share of tourist visits in the number of international visits has increased. The share of international visits in the number of international travellers increased from 86.6% to 91.5%, mainly due to fewer visits by under-15s, while also increasing the share of tourist visits from 71.8% to 91.6% [43]. In second quarter 2022, most visits (52.0%) were made for leisure, entertainment, and recreation purposes. Most of the visits were made in Tbilisi and Adjara AR, respectively, with 512.7 thousand and 375.3 thousand. The chart below shows the percentage distribution of the number of visits by region visited.

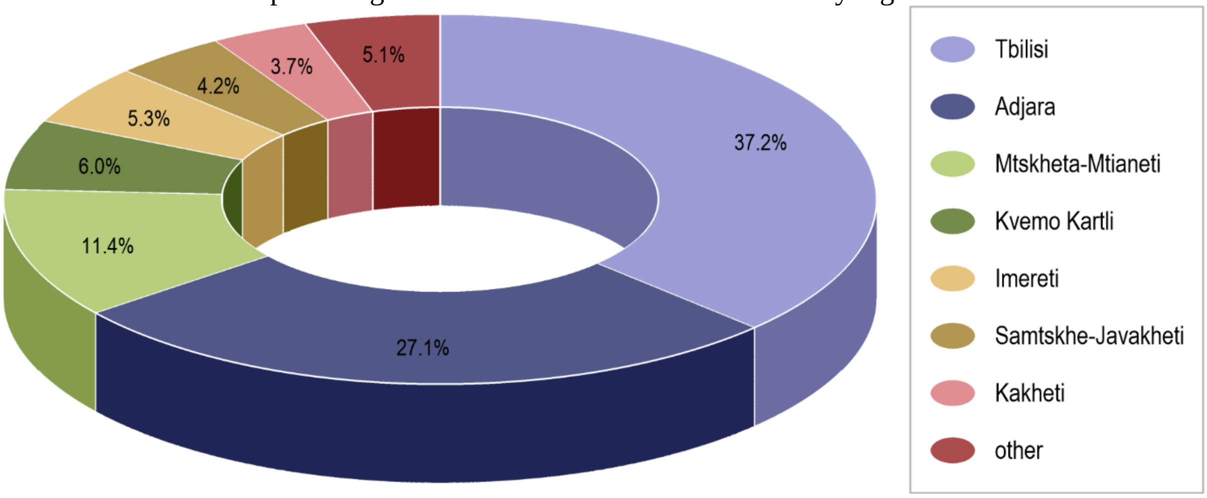


Figure 12 Distribution of the average monthly number of visits made by non-resident visitors of Georgia aged 15 and older by regions visited[2]. Data source [44]

The average number of nights spent during visits made in the second quarter of 2022 amounted to 6.2 nights. 70.5% of the visits were repeat visits. 58.9% of visitors express satisfaction. In 2021, the average monthly number of tourists made by Georgian resident visitors to the territory of Georgia was determined at 662.6 thousand, which is 37.9% more than the previous year's figure. Domestic visitors made 16.9 million visits in the given period, an increase of 35.8% compared to the same period of the previous year. The highest number of visits (41.8%) was recorded from Tbilisi. Most of the internal visits were made in the direction of the main cities in Georgia. The average duration of the visit was two nights. The average length of Tbilisi residents' visits was the highest at 2.9 nights, while for other regions, this figure was one night. Residents of Georgia made 46.9% of the internal visits to visit friends and relatives. The trip's primary purpose was to visit the second home, which accounted for 15.9% of the visits, and shopping visits represented a significant share of 13.2%. As for the visits made for treatment or health, 8.9% were made, while 8.1% were made for rest, entertainment, and recreation. Other frequently reported goals included business and professional activities at 3.5%. The total number of overnight stays made by domestic visitors amounted to 35.5 million. Among them, visitors spent 46.4% of overnight stays in a friend's or relative's apartment, 41.5% in their own home, and 4.3% in a guest house or hostel. The total expenditures made by domestic visitors exceeded 2.7 billion GEL, and the average expenditure incurred during one visit was 160.1 GEL. The largest share of expenses, 35%, was recorded for shopping [41]. Fig. 13 shows the distribution of the average monthly number of Georgian resident visitors aged 15 and older by age groups.

[2] Note In order to avoid the risks related to the spread of the new coronavirus (COVID-19) in Georgia, the field work of the statistical survey of foreign visitors by Geostat was temporarily suspended. Accordingly, data from the II quarter of 2020 to the IV quarter of 2021 is not available.

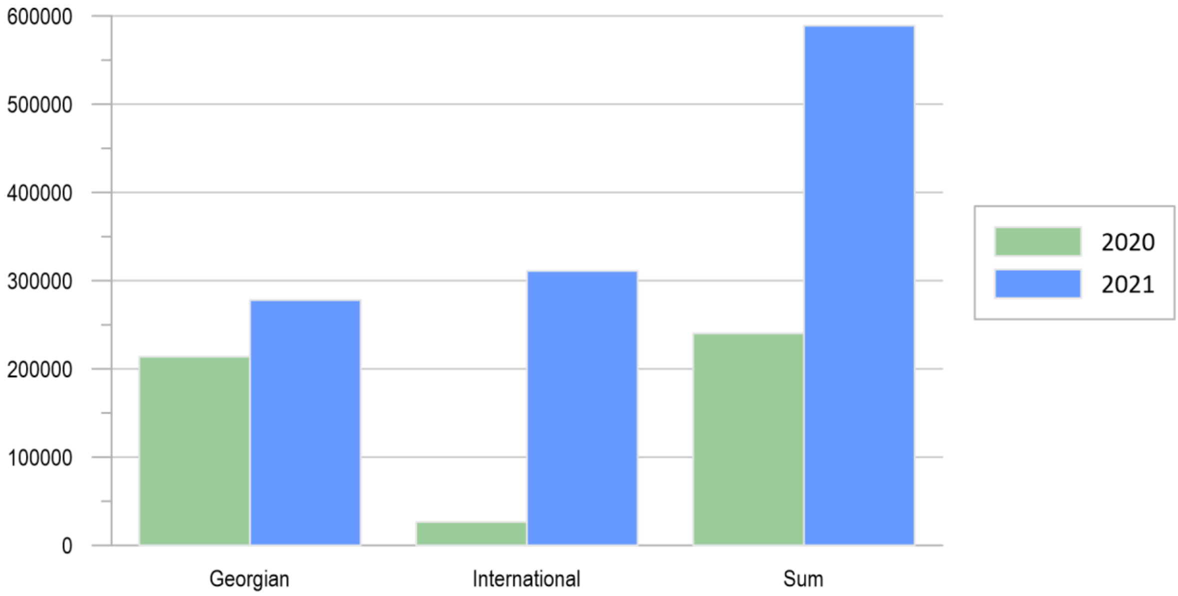


Figure 13. Distribution of the average monthly number of Georgian resident visitors aged 15 and older by age group in 2021. Data source [45]

According to STR Global, the occupancy rate of hotels in Georgia in 2021 was 45.7%, an increase compared to the previous year was +106.8%. The highest load was observed in July at 73.1%, August at 65% and June at 58.4%, while the lowest was January at 16.1%, February at 18.8% and March at 23.9%. The data of SHG Global allows analysis of three categories: Tbilisi, Batumi and the rest of Georgia. Among them, Batumi leads with the load factor of 55.4%, followed by the rest of Georgia with 50.2% and Tbilisi with 41%. During 2021, 589,098 visitors visited protected areas, an increase of 145.2% compared to the previous year. The number of foreign visitors to protected areas was 311,014, an increase of 1,077%. Ukrainians (13.7%), Jews (13.3%), Russians (12.1%), Belarusians (11.3%) and Latvians (9.5%) prevailed among foreign visitors.

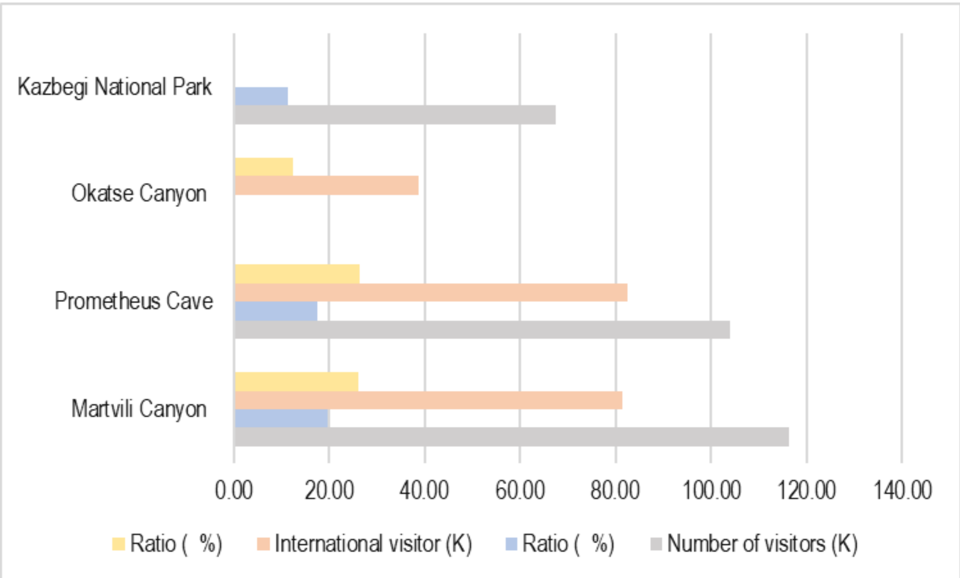


Figure 14. Number of total and international visitors according to popular tourist destinations

As evident from fig. 14 the most visitors visited Martvili Canyon (19.8%), Prometheus Cave (17.7%) and Kazbegi National Park (11.4%). The foreign visitors mostly visited Prometheus Cave (26.5%), Martvili Canyon (26.2%) and Okatse Canyon (12.5%). An interactive map (fig. 15) created based on these statistics offers photos of the mentioned popular protected areas.

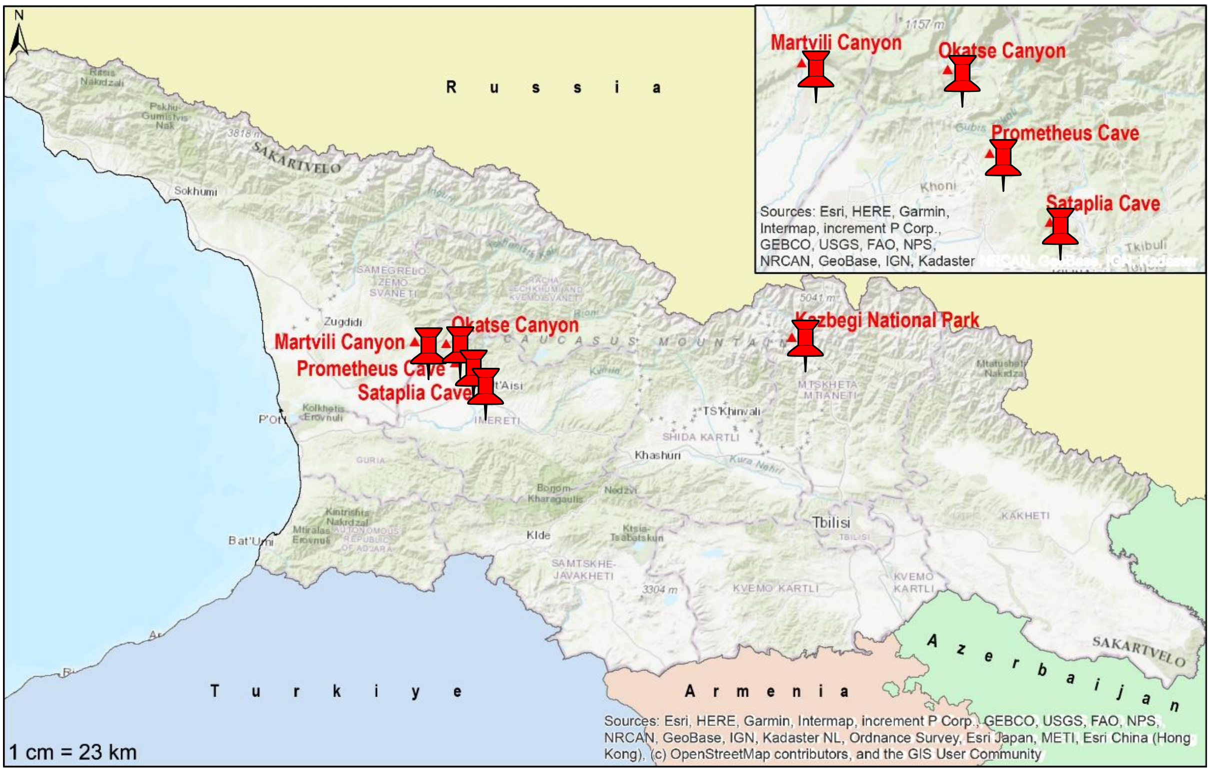


Figure 15. Most visited Protected areas in Georgia

The income received from tourist services of the protected areas amounted to 5,832,764 GEL, an increase compared to the previous year is 548.8%.

Table 4. Income from tourist services for the most popular protected areas

	Tourist destination	Income from tourist services (GEL)
1	Prometheus Cave	2,365,460
2	Martvili Canyon	1,850,180
3	Okatse Canyon	650,076
4	Sataplia	351,428

Table 4 shows revenues from popular protected areas.

The share of foreign visitors to protected areas increased from 11% to 53%. The increase in the number of foreign visitors amounted to +1,077%, while the increase in Georgian visitors amounted to 30%. As a result, the share of foreign visitors in the number of visitors to protected areas increased. The largest increase in the number of visitors was observed in the cases of Martvili Canyon, Prometheus Cave, and Okatse Canyon (Table 5). The increase of Georgian visitors in Martvili Canyon was 16,896; in Kazbegi National Park, 13,912; and in Sataplia, 9,918.

Table 5. Increased number of visitors and income in according to protected areas

	Tourist destination	Increase of visitors	Increase of international visitors	Increase in income	Increase in income (%)
1	Prometheus Cave	+84,767	+75,320	+2,074,871	42.1%
2	Martvili Canyon	+94,931	+78,035	+1,594,536	32.3%
3	Okatse Canyon	+40,438	+36,464	+558,319	11.3%

Prometheus Cave had the most significant increase in income in terms of protected areas (Table 5). The total increase in the revenues of the protected areas amounted to 4,933,688 GEL.

Among the visitors, 47% are Georgian (278,084), and 53% are foreigners (311,014). According to the data of 2021, Georgian visitors compared to 2020. The number has increased by 30%, and the number of foreign visitors has increased by 11.7 times. See Fig. 16.

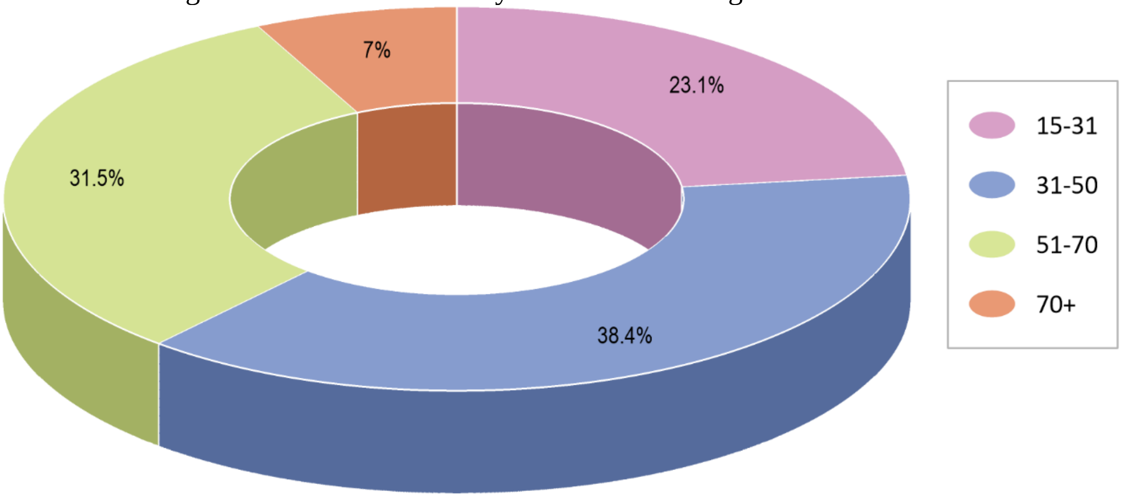


Figure 16. Number of visitors in protected areas 2020-2021. Data source [45]

The pandemic has affected small and medium enterprises [46, 47]. Their sales decreased significantly during the lockdown, but online sales increased across the country, and businesses that quickly adapted to the online platform saw relatively less loss.

The education system is worth noting among the many components of the pandemic. It should be emphasised that the system responded quickly, and the learning process moved to the online platform [48]. The famous TV School project was created. However, various difficulties were also revealed. These included limited access to technology and the Internet (especially in remote villages), a lack of willingness on the part of some staff, and a lack of skills to adapt to the online platform. Here, the issue of personnel readiness has relatively improved over time.

The financial instability associated with unemployment, the constant stressful background, and the interrupted socialisation due to the lockdown resulted in the deepening of mental problems in society [49]. Studies of college students have shown high levels of depression and anxiety [50]. It is also noted that, despite their vulnerability, international students coped with this challenge better than local students. This fact has its own logical explanation, which we will not dwell on in this article. More detailed studies on the consequences of the pandemic in the field of education will be needed to put it more clearly into perspective.

Discussion

Generally, COVID-19-related data and scholarly articles highlight that case fatality rates were higher among men than women in most countries due to biological factors, such as immune response, and behavioural risk factors related to particular habits [51]. However, there are exceptions when a higher case fatality rate is recorded among women in countries like India, Nepal, Vietnam, and Slovenia. Researchers explain this by incomplete data, other demographic factors, or the health system profiles of the countries [51]. In the case of Georgia, as it has already been mentioned, 2020–2021 Geostat data indicates that the total COVID-19 death number was higher among women by 525 (6671 males compared to 7196). However, in this regard, it is crucial to consider the average population and sex ratios in Georgia for 2020 and 2021, as the number of women exceeds the number of men. After conducting the necessary calculations, the combined COVID-19-related death rates for men and women could be considered roughly equal for 2020 and 2021.

Concerning the difference in death rates by sex in 2020 and 2021 (as two different tendencies could be observed: in 2020, more men died from COVID-19, and in 2021, more women died), it is difficult to draw a clear conclusion and provide an explanation for this observation due to a lack of relevant data and evidence. A clear explanation could not be provided for why, in 2021, excess female mortality was recorded for ages 25–64, particularly in the 45–64 age group, for the same reason. Therefore, if more comprehensive data and information becomes available, further research would be essential to understand the factors that determine these processes' determinants.

Despite the impact of the pandemic, the tourism industry in Georgia is steadily returning to its old performance. This is evidenced by the statistical data presented in the article.

It should be noted that despite the pandemic, the citizens of neighbouring countries and the world do not lose interest in Georgia. The number of international visitors has increased. Russians, Turks, and Armenians share the first, second, and third places among them. Geographical location and good neighbourly geopolitical relations with these countries contribute to the flow of tourists. Among the international visits from EU countries, the most visits were made from Poland, Germany, and France.

The average monthly number of tourist-type visits made by Georgian resident visitors to the territory of Georgia has also increased. Most visits were recorded from Tbilisi. Most of the internal visits were made in the direction of the main cities in Georgia. The occupancy of hotels has also increased. It is known that Tbilisi is the centre of migration. Accordingly, there is a seasonal flow of population in the regions. Different goals of the visits were highlighted. Among them, the most are for visiting friends and relatives. Therefore, visiting the second home leads to the trip's primary goal. Also, the visits made for the purpose of shopping represented a significant share. Treatment/rehabilitation visits are distinguished. Relatively less was recorded for rest, entertainment, and recreation.

It should be noted that during the pandemic period, after lifting various restrictions, especially isolation, the largest share of spending by domestic visitors was recorded on shopping. The load factor of hotels also increased. People had an extreme desire to leave their familiar environment.

Post-pandemic travel and recreation in open spaces are becoming relevant and popular. Accordingly, foreign and local visitors' interest in protected areas has increased. Citizens of Eastern European countries predominated among foreign visitors: Ukrainians, Russians, Belarusians, and Latvians.

Most visitors visited Martvili Canyon, Prometheus Cave, and Kazbegi National Park. Accordingly, the income received from the tourist services of the protected areas has also increased. Prometheus Cave had the most significant increase in revenue. This may be because the cave of Prometheus can be visited at any time of the year due to its stable temperature. One of the factors determining the popularity of Kazbegi National Park is its geographical proximity to Tbilisi.

Conclusion

As evidenced by this article, it is already noticeable that the pandemic negatively influenced Georgia's economy. As a result of the widespread lockdowns and quarantine restrictions, some economic sectors have experienced significant losses [52]. During the pandemic, Georgia had a high unemployment rate; individuals lost their jobs, reducing consumption. When demand declines, other industries reduce production since their goods are no longer required as intermediary goods, especially in the business sector. Therefore, some enterprises decided to delay investments, other companies terminated their operations, and the overall effect was a fall in GDP [53]. Based on statistical information provided by Geostat, in 2020, we noticed a decline in export and import volumes, but in 2021, external turnover increased. The Georgian economy's cornerstone is remittances. During the pandemic, they rose too and reached their maximum level. Before the pandemic, there was a declining trend in foreign investments, but in 2020, its shocking effects reached Georgia. Attracting international investments is the responsibility of the national government. As a result, the Georgian government will aim to increase the foreign investment it receives in the future. Therefore, they set up many creative initiatives to entice foreign investors, which will aid the government in lowering the unemployment rate and helping develop various regional economic sectors.

Despite the impact of the pandemic, the tourism industry in Georgia is steadily returning to its old performance. Russian, Turkish, and Armenian citizens are leading among international visitors in the region. Most visitors (48.5%) belonged to the 31–50 age group. From the EU countries, most visits were made from Poland, Germany, and France. Most of the visits were made for rest, entertainment, and recreation. Most of the visits were made in Tbilisi and Adjara AR. The increase in the load factor of hotels in Georgia compared to the previous year amounted to +106.8%. The highest load was observed in July, August, and June. The protected areas of Georgia do not lose their relevance. Most foreign visitors visited Prometheus Cave, Martvili, and Okatse Canyons. After the pandemic, rest and recovery from the energy spent at work are very important. Especially with so many restrictions and isolation, people have an increased desire to travel, socialise, and get healthy. The statistical data reviewed in the article prove that tourism retains its relevance, and it is crucial to utilise and use the tourist potential of our country rationally.

Competing interests

The authors declare that they have no competing interests.

Authors' contribution

M.T. developed the theoretical framework. A. S. performed the calculations of demographic data. S.D. and N.K preformed the numerical calculations. M.T. wrote the manuscript with input from all authors.

Appendix A

1. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. SARS-CoV-2 is a positive-sense single-stranded RNA virus that is contagious in humans.
2. The National Statistics Office of Georgia, or simply Geostat, the legal entity under public law, carries out its activities independently. It is an institution established to produce the statistics and disseminate the statistical information according to Georgian legislation. The National Statistics Office of Georgia is established by the Law of Georgia, dated December 11, 2009, on Official Statistics.
3. STR is the leading provider of premium global data benchmarking, analytics and marketplace for the global hospitality industry.
4. The Agency of Protected Areas (APA) underwent several stages of development and structural reforms before becoming what it is today. The objective of the agency is to improve the management of protected areas, ensure the functionality of territorial administrations, supervise the process of following legally established regulations, and plan, create, and develop new protected areas.
5. The National Bank of Georgia (NBG) is the central bank of Georgia. Its status is defined by the Constitution of Georgia. The main objective of the National Bank is to ensure price stability.
6. Since Kazbegi has been renamed as Stepantsminda, the national park remains known by the original title of Kazbegi National Park.

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