






## What Can Money Do? How Budget Expenditures Influenced Terrorism in the North Caucasus<sup>1</sup>

Nikolai Silaev<sup>2</sup> , Ekaterina Arapova<sup>3</sup> , Nikita Neklyudov<sup>4</sup> , Vasily Taran<sup>5</sup>  and Natalya Samoylovskaya<sup>6</sup> 

**Abstract:** Over the past decade, Russia has experienced a notable decline in the incidence of terrorist attacks, coinciding with the Russian government's pursuit of socio-economic development in the North Caucasus region, which has historically been a focal point for such attacks. This paper uses Granger tests to determine whether government economic policies have played a role in reducing terrorist activity in three North Caucasus republics: Dagestan, Ingushetia, and Kabardino-Balkaria. The results of this analysis reveal a direct causal relationship between budgetary expenditure on the national economy and the frequency of terrorist attacks, with higher expenditure correlating with an increase in attacks in two out of the three republics, namely Dagestan and Kabardino-Balkaria. In contrast, public investment in human capital, as operationalized by spending on education and health, is shown to contribute to a decrease in terrorism in one of the three republics, namely Kabardino-Balkaria.

**Keywords:** Russia, North Caucasus, terrorism, budget expenditures

<sup>1</sup> Acknowledgement: The article was prepared in the framework of a research grant funded by the Ministry of Science and Higher Education of the Russian Federation (Grant ID: 075-15-2022-327).

<sup>2</sup> Nikolay Ya. Silaev works at the MGIMO University and is the Director of the Laboratory of Smart Data Analysis at the Russia Institute for International Studies. Contact E-mail: [nikolai.silaev@gmail.com](mailto:nikolai.silaev@gmail.com)

<sup>3</sup> Ekaterina Ya. Arapova works at the MGIMO University at the Russia Institute for International Studies. She also serves as the Deputy Dean of the School of International Relation. Contact E-mail: [arapova\\_katrin@mail.ru](mailto:arapova_katrin@mail.ru)

<sup>4</sup> Nikita Y. Neklyudov works as a Lecturer at the MGIMO University and the Russia School of International Relations, where he also serves as the Deputy Dean. Contact E-mail: [nehkludow96@gmail.com](mailto:nehkludow96@gmail.com)

<sup>5</sup> Vasily E. Taran works at the MGIMO University and is the Analyst the Russia Institute for International Studies Laboratory of Smart Data Analysis. Contact E-mail: [va.e.taran@my.mgimo.ru](mailto:va.e.taran@my.mgimo.ru)

<sup>6</sup> Natalya A. Samoylovskaya is a Research Fellow at the MGIMO University and the Russia Institute for International Studies. Contact E-mail: [n.samoylovskaya@inno.mgimo.ru](mailto:n.samoylovskaya@inno.mgimo.ru)

## Introduction and Methodology

The debate about the relationship between economic conditions and terrorism is still far from being over. Although there is a large body of research arguing that poverty does not cause terrorism, this conclusion is being challenged by new data and methods. However, recent developments in Russia may shed new light on the issue.

From 2011 to 2019, Russia experienced a significant decline in terrorist activity. According to the Global Terrorism Database, there were 188 terrorist attacks occurred in Russia in 2011, and only 10 in 2019. The decline was almost uninterrupted, except for two upsurges in 2015 and 2016. The global trend of the decade was the opposite, with around 4–5 thousand attacks occurred in 2011, rising to 17 thousand in 2014 and then falling to 8–10 thousand. In addition to the general decline in the number of attacks and victims, the link between terrorism and the North Caucasus has weakened. The deadliest recent terrorist attacks in Russia, such as the bombing in the St Petersburg metro on 3 April 2017 that left 16 dead and 86 injured, were not organized by the North Caucasus insurgents (Klimentov 2021).

The decade of declining terrorism in Russia was also a period of government made efforts to stimulate economic growth in the North Caucasus (Vesti 2010). A strategy for the socio-economic development of the North Caucasus was adopted (Order N1485-r 2010, Consultant 2010). The new North Caucasus Federal District was created. Alexander Khloponin was appointed Plenipotentiary Representative of the President in the new federal district. At the time, he also held the post of Deputy Prime Minister in the Government of the Russian Federation, which shows how important economic policy in the North Caucasus was to the federal government. Khloponin's business background (prior to his political career he was a large shareholder and a top manager of *Norilsky Nickel*, the world's largest producer of nickel and palladium) should have demonstrated the changing agenda for the region and the shift from security to economic issues. A new federal ministry for North Caucasus affairs and a state corporation for the development of the region were created.

At the conceptual level, there was no direct link between the tasks of economic development and counter-terrorism. The Strategy for Socio-Economic Development of the North Caucasus referred to the National Security Strategy of the Russian Federation, but did not mention counter-terrorism as one of its objectives. Meanwhile, the National Security Strategy listed the threats of terrorism and that of economic and social inequality, but did not make any links between them. Thus, the key documents of Russia's strategic planning

did not support the claim that terrorism was caused by poverty or inequality, and that reducing poverty might have helped to combat terrorism. Similarly, the results of the policy aimed of the socio-economic development of the North Caucasus were not very impressive. The Accounts Chamber of the Russian Federation concluded that the strategic goals of the policy had not been achieved (Accounting Chamber 2021). However, in the 2010s, Russia was performing two tasks simultaneously: countering terrorism and improving the socio-economic situation in the North Caucasus, which allows us to understand whether the state's efforts in the field of economic development of the region contributed to the decrease of terrorism. From a theoretical perspective, it can contribute to the ongoing discussion on the economic factors of terrorism, while on an empirical level, it helps to answer the question that has not yet been sufficiently explained in the literature: what factors caused the decline of terrorism in Russia in the second half of the 2010s?

The paper proceeds as follows. First, we place research in the context of the broader discussions about the relationship between terrorism and the economy, and about the decline of terrorism in Russia. Second, we describe our data and methodological approach. We then present our statistical results and our conclusions.

### **Terrorism and Economy: The Russian Case**

Ted Robert Gurr explained the relationship between economic conditions and political violence through the concept of relative deprivation, or the gap between the amount of goods people think they deserve and the amount of goods they actually have. The concept can be operationalized by comparing the actual wages with worker's expectations of what constitutes a fair share of their wages (Gurr 1970). Gurr's work is still widely cited by scholars of protests and political violence. However, the concept of relative deprivation is not entirely clear. While indicators such as wages or GDP per capita are more or less tangible, the variables that reflect people's expectations and beliefs about justice are difficult to calculate. This is the obstacle facing any quantitative study of political violence. The relationship between the economy and terrorism is only probable.

In the aftermath of 9/11, it became a commonplace among policymakers, particularly in the West, that terrorism was caused by poverty. This belief had some academic basis, as some studies insisted on the interdependence between economic hardship and civil conflict (Abadie 2006). The most influential researchers on the relationship between poverty and terrorism have challenged this view. Alan B. Krueger and Jitka Malečková analyzed public opinion polls

in the West Bank and Gaza Strip, the biographical data of terrorists in Palestine and Lebanon, and used cross-national data to test whether international terrorists come mostly from rich or poor countries. They concluded that there is no significant relationship between educational attainment, poverty and terrorism (Krueger and Malečková 2003). These findings were confirmed by Alberto Abadie (2006) using a dataset that included both international and domestic terrorist attacks. Abadie also showed that human development has no significant effect on terrorism, while the level of political freedom does affect it. James Piazza (2006) concluded that none of the indicators of economic development affect terrorism. Macroeconomic fluctuations do not correlate with the dynamics of terrorism, nor does poverty fuel terrorism at the individual level (Krueger and Laitin 2012, 148).

Some other approaches, however, challenge this academic consensus. Such approaches can be divided into two trends. The first one is based on the detailed data on the individuals involved in terrorism. Existing research shows that terrorists are usually recruited from those who are educated enough to think about politics and wealthy enough to devote their time to political activity. But what is their position within the educated and affluent subgroup of a society? Alexander Lee (2011) posed this question by examining the biographical data set of violent and non-violent anti-colonial activists in Bengal. He found out that both groups belonged to the educated and affluent subgroup of the society. However, those who resorted to violence had poorer economic and career opportunities. From this perspective, Lee concluded that macroeconomic changes can influence terrorism by effecting the distribution of opportunities in a given society. Lee's theory was tested using data on jihadists from the European Union and found to be credible (Hegghammer 2016).

The second approach attempts to identify the relationship between economic conditions and terrorism by using high-resolution data rather than general macroeconomic indicators. Brock Blomberg, Hess, and Weerapana (2004) concluded that subgroups with limited economic opportunities resort to terrorism. Piazza (2011) showed that economic discrimination against minorities leads to domestic terrorism. The study by Omelicheva and Webb (2021) is particularly important in our case. They analyzed how the economic hardships of 2008-9 and 2014-16 affected terrorism in Russia. The study was based on the statistics collected at the regional level. Omelicheva and Webb showed that economic crises exacerbate existing grievances and provide new recruitment opportunities for terrorist organizations. From this point of view, economic policy is important and can either reduce or encourage terrorism. Bourgoon (2006) argued that social welfare policies can reduce terrorism by

reducing inequality and insecurity.

For our purposes, two points are crucial. The first is that the debate on the relationship between the economy and terrorism is not yet over. New data and new methods may lead to new conclusions. The second is that a state's economic policy can influence domestic terrorism. Therefore, the case of Russia in 2011-19, when the decline in terrorism coincided with the deliberate policy of socio-economic development of the North Caucasus regions, provides a unique opportunity to verify these links. Moreover, uncovering the interdependence between terrorism and economic policy in Russia is important because the existing research lacks a conclusive explanation of why terrorism decreased in this country during the analyzed decade.

Existing explanations for the decline in terrorism in Russia focus on the effects of the counterinsurgency strategy in Chechnya, the migration of the most radical groups from the North Caucasus to the ISIS-controlled territory in the Middle East, or the strategic logic of the terrorist organizations. Ratelle and Souleimanov argue that the so-called 'Chechenization' policy, which meant that the local government in the Chechen Republic was endowed with the rights and ability to use force against those they considered terrorists, was effective in combating armed resistance in the republic (Ratelle and Souleimanov 2016). Stepanova also suggests that 'Chechenization' contributed to the decline of terrorism in Russia (Stepanova 2019). However, this does not explain why terrorism declined in the other North Caucasus republics, even though similar strategies were never applied to them (Souleimanov and Aliyev 2016).

The most influential explanation, which encompasses the entire North Caucasus region, is that the most radical jihadists from Russia fled to Syria and Iraq as the Islamic State called on the Muslims around the world to join it. Holland, Witmer, and O'Loughlin (2018) cite emigration among other factors for the decline of terrorism in Russia; they believe that potential insurgents left the country to fight in the Middle East or in eastern Ukraine. Wilhelmsen (2020) sees the emigration of the Chechens to ISIS-controlled territory as their way of resisting Russian rule. The emigration theory is also particularly influential in policy papers and commentaries on Islam and violence in the North Caucasus (see, Yarlykapov 2015, International Crisis Group 2016, Klimenko and Melvin 2016); it is even supported by Europol (2016). Nevertheless, the emigration theory has its own weaknesses. The first one is that there are no credible and available statistics on how many fighters from the North Caucasus have joined ISIS, and what the year-to-year dynamics of emigration have been. The second is that this theory does not explain why radical groups did not re-emerge in the North Caucasus after some of their members left for Syria and Iraq, as the political

situation in Russia remained the same. Third, the emigration of jihadists has had at least two effects on terrorism in Russia. On the one hand, those who fled, were no longer able to carry out terrorist attacks in Russia. On the other hand, they were able to gain military training and experience under the command of ISIS in order to return home more motivated and better prepared to carry out attacks. Furthermore, emigration could strengthen the international jihadist network that connects Russian radicals with their foreign counterparts, thus increasing the terrorist threat (Stepanova 2019).

Vassily Klimentov (2021) explains the decline in terrorist attacks in Russia in terms of the strategic logic behind them in the first place. He argues that terrorist attacks in Russia outside the North Caucasus were carried out in order to force the Kremlin to negotiate the Chechen separatists' political agenda. However, Moscow's refusal to negotiate rendered the attacks pointless. The internal political dynamics within radical armed groups influence the level of violence, argues Mark Youngman (2020). While this approach has analytical value, it does not explain the dynamics of terrorism in the North Caucasus itself. Klimentov does not take into account the mass casualty attacks in Ingushetia in June 2003, in Beslan in September 2004 and in Nalchik in October 2005. Most of the terrorist attacks in Russia that caused the most casualties took place in the North Caucasus. Excluding this region from the study hinders a full understanding of the reasons for the decline in terrorism in Russia over the analyzed decade.

Some authors claim that Russian counterinsurgency have undergone changes since the second half of the 2000s. The number of indiscriminate repressive actions significantly decreased in favor of discriminate and preventive measures (Zhirukhina 2017). Stepanova mentions that 'smarter suppression' was one of the factors contributing to the decline of terrorism in Russia (Stepanova 2019, 36-37). In some regions of the North Caucasus, religious and political leaders have attempted to establish a dialogue between conflicting Muslim groups. This was the case in Dagestan (Ibragimov and Matsuzato 2014). However, the scholars have not assessed the impact of these changes on the number of terrorist attacks.

Economic policy in the North Caucasus and its relationship with the intensity of terrorist attacks has received little attention from scholars. Stepanova suggests that federal subsidies have played an important role in reducing terrorism, although most of them were concentrated in Chechnya (Stepanova 2019). Holland et al. (2018) argue that federal budget subsidies to the regions in the North Caucasus have not contributed to the decrease in violence. Thus, there is no consensus on the link between the policy of socio-economic development of

the region and the decline of terrorism. In this paper, we aim to clarify this issue using new data and statistical methods.

## Data and Research Design

We refer to two recent studies that are particularly relevant our research from a methodological point of view. The first (Holland et al. 2018) analyses the relationship between budget subsidies and the number of conflict events at the level of districts and cities (*munitsipalnie rayony and gorodskie okruga*, i.e. administrative-territorial units which are one level lower than regions – subjects of the Russian Federation). By subsidies we mean transfers of money from the budgets of the higher levels to the municipal budgets. This approach allows us to study the causal relationship between subsidies and conflict events with the highest possible spatial resolution. However, this means that we do not take into account budget expenditures at the regional level, which are mostly concerned with economic policy and economic performance.

The second study (Omelicheva and Webb 2021) provides valuable theoretical insights into the causal pathways through which the economic factors influence terrorist activity. The study argues that these pathways are multiple and can operate both at the individual level and through the changing opportunity structures for terrorist organizations. For example, economic hardship may exacerbate individual grievances and thus motivate an individual to join a terrorist organization, while at the same time reducing the resource base of a terrorist organization. Omelicheva and Webb operationalize their analysis of these pathways with three statistical indicators. The first one is inflation, which makes most people poorer and is therefore likely to motivate them to resort to political violence. The second one is unemployment, which also exacerbates individual hardship. The third is the budget of organizations (the arithmetic difference between profit and loss that all companies have in a given year). This indicator makes it possible to estimate the resource base on which terrorist groups can rely upon. Omelicheva and Webb suggest that the more money local businesses make, the more opportunities terrorists have to extort the money, for example through blackmail. The methodology of the research is based on finding relationships between the number of terrorist attacks, the number of non-violent terrorist and extremist crimes, and economic indicators at the regional level.

Our research aims to combine the strength of these approaches. We focus on the regional level in order to achieve a resolution of data high enough to reveal the links between economic policy and terrorism only in the areas where terrorist

groups operate and terrorist attacks occur. We use the indicators proposed by Omelicheva and Webb to examine the specific ways in which economic policy can affect terrorism. We will show how the government's policy for the socio-economic development of the North Caucasus has influenced terrorism and the likely ways in which it has done so. Therefore, we focus on the regional level to analyze the intensity of terrorist attacks and the government's attempts to ensure economic growth. We base our study on the data from three North Caucasus republics: Dagestan, Ingushetia, and Kabardino-Balkaria. We chose these republics because they were the main area of terrorist activity in Russia in 2011-2019. In 2011-2013, when Russia suffered the most from terrorism, up to 88 per cent of all the terrorist attacks in the country took place in these three republics.

We exclude the Chechen Republic from our analysis because of its de facto special status, both in terms of counter-terrorism and budgetary policy. The Chechen authorities have much greater discretion in the area of counter-terrorism than the leaders of other North Caucasus republics. Ramzan Kadyrov, the head of Chechnya, unofficially but openly commands his own army and enjoys a free hand to pursue his own strategy of fighting terrorists (Ratelle and Souleimanov 2016). In addition, the Chechen Republic, which was severely damaged by two wars in the 1990s and 2000s, is implementing a massive reconstruction programme with a special budget (Basnukaev 2014). This makes it difficult to compare with other republics in the North Caucasus.

We operationalize the policy of socio-economic development with the dynamics of budget expenditures in Dagestan, Ingushetia, and Kabardino-Balkaria. The data on budget expenditures are taken from the laws on budget execution of all republics adopted between 1993 and 2020. These documents report the actual budget expenditure of the region for the previous year. Indicators were collected for such expenditure items as 'national economy' (budget classification code 0400), 'education' (0700), 'healthcare' (0900), 'Social Policy' (1000). We assume that the state policy of socio-economic development of the North Caucasus is most clearly manifested in the growth of budget expenditure, which includes investments in both the national economy and social policy. The data have been processed to ensure their comparability. For example, until 2011, spending on health care was counted together with spending on physical education and sport. Therefore, they had to be counted separately on the basis of these subsections. Until 2005, expenditure on items that were later included into the section 'national economy' was recorded separately and therefore had to be consolidated.



Budget expenditure indicators for each of the items were calculated as 1) gross; 2) per capita. The latter figure was designed to take account of differences in per capita expenditure due to differences in population. The database and the calculations based on it are presented in Annex 1. We use the data on terrorism published by the Global Terrorism Database (GTD). Its Codebook defines a terrorist attack “as the threatened or actual use of illegal force and violence by a non-state actor to achieve a political, economic, religious, or social objective through fear, coercion, or intimidation” (Codebook 2021, 11). It distinguishes terrorism from violence used by state actors. Unlike Holland et al. (2018), who count conflict events instead of terrorist attacks (including cases where state agencies prosecute alleged terrorists), we rely on the GTD definition and data because the GTD provides a long historical account of terrorism. We also focus specifically on terrorism, rather than political violence in general.

In the last decade, researchers have used Russian criminal statistics as a source of the quantitative data on terrorism and extremism (Omelicheva and Webb 2021). The data is provided by the Prosecutor’s General Office of the Russian Federation (<http://crimestat.ru/>). It counts the number of registered terrorist crimes, extremist crimes and the number of persons charged with these crimes. However, there are some shortcomings in the data. First, terrorist crime statistics includes both violent and non-violent offences (the latter category includes public incitement to terrorism or organization of a terrorist group). According to the statistics, a single terrorist attack may be recorded as a series of crimes: the violent attack itself, the formation of a terrorist group, etc. This makes it difficult to assess the actual level of violence. Second, the temporal depth of the Russian crime database is too short for our analysis. It provides data since the December of 2009, which turned out to be too short for the statistical method we chose. Third, the Russian Penal Code has undergone significant changes since 2009. In 2013-2014, it was amended with several offences, including preparations for terrorist activities, participation in a terrorist organization, etc. It is doubtful whether the statistics for different years in 2009-2022 are fully compatible. The legislative amendments of 2013-2014 led to a significant increase in the number of terrorist offences in Russian criminal statistics, while the general trend for terrorist violence was quite the opposite.

The indicators of terrorist activity were calculated: (1) as the number of terrorist attacks per year in each republic, and (2) as the number of terrorist attacks per year per 100,000 inhabitants in each republic (data on the population of the republics was taken from the results of the 1989 and 2020 censuses). The second indicator was introduced to take account of the significant difference in

population between Dagestan, Ingushetia, and Kabardino-Balkaria.

Our first step is to find out how socio-economic development policies have influenced terrorism. The second step is to identify the mechanisms of the influence. To this end, we analyze how socio-economic policies have affected the economic performance in terms of both the grievances of the population and the opportunities for terrorist groups. Indicators of the economic performance of the three North Caucasus republics were taken from the publications of the Russian Federal State Statistics Service (*Rosstat*). We used the yearbooks “Regions of Russia: Socio-Economic Indicators” for the years of 2000-2020. Based on the findings of Omelicheva and Webb, we collected three indicators: the consumer price index (inflation), the level of unemployment, and the financial results of organizations.

To analyze the time series reflecting the dynamics of budget expenditures, the level of terrorist activity, and economic performance, we apply the Granger causality test. This tool of economic statistical analysis is used to establish causal relationships between macroeconomic and other indicators and is used, among other things, to estimate the impact of budget spending (Patel and Annapoorna 2019). Unlike correlation analysis, which shows a relationship between variables but does not explain the direction of that relationship, Granger’s test indicates causality by estimating the predictive power of one variable in relation to the value of another (Lin 2008). Therefore, although our study focuses on the decade from 2010 to 2019, we run the time series from 2000.

We carried out two iterations of statistical analysis. First, we calculated a Granger test for budget expenditures allocated to different objectives and the number of terrorist attacks in each republic on a year-to-year basis. Second, we used Granger test to estimate how budget spending on the national economy affected unemployment, inflation and the financial results of organizations.

## Results

A database was created reflecting the dynamics of terrorist activity and budgetary expenditures separately in Dagestan, Ingushetia and Kabardino-Balkaria (Silaev et al. 2023). The database was used as a basis for calculating the Granger test, which assesses the effect of the each budgetary expenditure on terrorist activity. The results of the statistical analysis are presented in Table 1.

**Table 1. The Impact of Regional Budget Expenditures on Terrorist Activity in Dagestan (RD), Ingushetia (RI), Kabardino-Balkaria (KBR) - the result of Granger test calculations.**

Budget expenditure items		Number of terrorist attacks	Number of terrorist attacks per 100,000 people
<b>National Economy</b>	KB	Direct significant effect of budgetary expenditure on the number of terrorist attacks over 2, 3 and 4 years horizon (the higher the level of development, the higher the number of terrorist attacks).	Direct significant effect of budgetary expenditure on the number of terrorist attacks over 2, 3 and 4 years horizon (the higher the level of development, the higher the number of terrorist attacks per 100 thousand)
	RI	Insignificant effect over the entire time horizon	Insignificant effect over the entire time horizon
	RD	Direct significant effect of budget expenditure on the number of terrorist attacks in 2 and 4 years (the higher the level of development, the higher the number of terrorist attacks)	Direct significant effect of budget expenditure on the number of terrorist attacks in 2 and 4 years (the higher the level of development, the higher the number of terrorist attacks per 100 thousand)
<b>National Economy per capita</b>	KBR	Direct significant effect of budget expenditure on the number of terrorist attacks in 2 and 4 years (the higher the level of development per capita, the higher the number of terrorist attacks)	Direct significant effect of the economic development on the number of terrorist attacks in 2 and 4 years (the higher the level of development per capita, the higher the number of terrorist attacks per 100 thousand)
	RI	Insignificant effect over the entire time horizon	Insignificant effect over the entire time horizon
	RD	Direct significant effect of budget expenditure on the number of terrorist attacks in 2 years (the higher the level of development per capita, the higher the number of terrorist attacks)	Direct significant effect of the economic development on the number of terrorist attacks in 2 years (the higher the level of development per capita, the higher the number of terrorist attacks per 100 thousand)
<b>Education</b>	KBR	Inverse significant effect of budget expenditure on the number of terrorist attacks over 2, 3, and 4 years horizon (the higher the level of education, the lower the number of terrorist attacks)	Inverse significant effect of budget expenditure on the number of terrorist attacks over 2, 3 and 4 years horizon (the higher the level of education, the lower the number of terrorist attacks per 100 thousand)
	RI	Insignificant effect over the entire time horizon	Insignificant effect over the entire time horizon
	RD	Insignificant effect over the entire time horizon	Insignificant effect over the entire time horizon

The calculations show that the level of expenditure on the national economy has a direct significant effect on the number of terrorist attacks over a horizon of 2, 3, and 4 years (the higher the level of expenditure, the higher the number of terrorist attacks) in Kabardino-Balkaria and in Dagestan. At the same time, the level of spending on education shows an inverse significant effect on the number of terrorist attacks over a horizon of 2, 3, and 4 years (the higher the level of spending, the lower the number of terrorist attacks) in Kabardino-Balkaria. In Dagestan and Ingushetia, there is no causal relationship between spending on education and health and the level of terrorist activity. Budgetary expenditure on social policy has no effect on terrorist activity.

Table 2 presents the results of a Granger test of the causal relationship between budget expenditures and economic performance in Dagestan, Kabardino-Balkaria, and Ingushetia. We computed the test only for the expenditures of the national economy, because the previous iteration showed no influence of these expenditures on terrorism. We do not calculate the relationship between education spending and the economic performance because there is no statistical data available that is valid enough for a sufficiently long time series. We exclude the results for inflation from the table, because, predictably, we find no influence of regional budget expenditure on this indicator.

**Table 2. The Effect of Regional Budget Expenditure on Economic Performance in Dagestan (RD), Ingushetia (RI), Kabardino-Balkaria (KBR), the result of Granger test calculations**

Budget Expenditure Item	Region	Unemployment	Financial Result
National Economy	KBR	Inverse significant effect of budget expenditure on the level of unemployment over 4 years (the more budget expenditure, the less unemployment).	Insignificant effect over the entire time horizon.
	RI	Inverse significant effect of budget expenditure on the level of unemployment over 2 and 4 years horizon (the more budget expenditure the less unemployment).	Direct significant effect of budget expenditure on financial result over 4 years (the more budget expenditure, the more financial result).
	RD	Insignificant effect over the entire time horizon.	Inverse significant effect of budget expenditure on financial result over 4 years (the more budget expenditure, the less financial results).

The calculation shows that budget spending on the national economy has a significant inverse effect on unemployment in Kabardino-Balkaria and Ingushetia, but no effect in Dagestan. As for financial results, they depend on the budget investment in Ingushetia, but not in Kabardino-Balkaria and Dagestan.

## **Conclusion**

We see that the effects of budget spending have been uneven across the different republics of the North Caucasus. This strongly confirms the point that the region is diverse, and there may be different patterns of mutual relationships between the economy and political violence. Holland et al. (2018) correctly concluded that the policy of socio-economic development did not contribute to the reduction of terrorist attacks in Russia. The fight against terrorism was won due to the government's efforts in the field of security and governance, rather than in the regional economy.

Our research shows that public investment in human capital (i.e. spending on education and health care) has been insignificant to counter terrorism. The only exception is Kabardino-Balkaria, where spending on education had a positive effect in terms of reducing the number of terrorist attacks. Given the lack of reliable statistics on the education in the three republics, further qualitative research is needed to explain why the spending on this item works in Kabardino-Balkaria, but not in the other republics.

The public policy of socio-economic development has not been in vain, despite the negative official assessments of its results. At least in Kabardino-Balkaria and Ingushetia, it helped to reduce unemployment, which had been one of the serious problems of the North Caucasus for decades. In two of the three republics, however, the policy led to an increase in the number of terrorist attacks. The differences between the republics in terms of the causal relationship between budget expenditure, economic performance and terrorism, allow us to make some assumptions about the way in which budget spending influences terrorism.

We have three cases. In Dagestan, public investment in the economy led to an increase in terrorist attacks, had no effect on unemployment and reduced corporate profits of companies. In Kabardino-Balkaria, budget expenditure led to an increase in terrorist attacks, created more jobs, and did not affect financial results. In Ingushetia, budget spending had not effect on terrorism, but created more jobs and increased profits.

Taking into account the “grievance/opportunity theory” put forward by Omelicheva and Webb, we can summarise the differences between the three republics in the Table 3. The table shows how budget expenditure classifies the factors of terrorism from the “grievance” and “opportunity” sides, and what the relationship between budget expenditure and terrorism is in each of the republics, according to the Granger test.

**Table 3. Differences Between two Republics**

	“Grievances”	“Opportunities”	Spending caused terrorism
KBR	Less	No influence	Yes
RI	Less	More	No
RD	No influence	Less	Yes

In Dagestan and Kabardino-Balkaria, budget expenditure fomented terrorism while either reducing the sources of grievances and opportunities or remaining neutral. In Ingushetia, budget expenditure has not fomented terrorism, while increasing the source of opportunities and decreasing grievances.

The shortest explanation of this paradox is expressed in the question: “Where did the money go?” From a practical point of view, in Ingushetia the budget money poured into the republic’s economy was spent quite transparently: it created new jobs and gave profits to businesses. In Kabardino-Balkaria and Dagestan, the way it was spent was not so clear. In the former, the companies create new jobs but hide their profits. In the latter, the budget money simply disappeared without any significant economic effect. There is no reliable and comparable data on the size of the grey economy in different regions of Russia. However, our research suggests that the institutional environment is different in Ingushetia, Dagestan and Kabardino-Balkaria, and that these differences may foment terrorism.

## References

- Abadie, Alberto. 2006. "Poverty, Political Freedom, and the Roots of Terrorism." *American Economic Review* 96, no. 2: 50-56. <https://doi.org/10.1257/000282806777211847>
- Basnukaev, Musa. 2014. "Reconstruction in Chechnya: at the Intersection Between Politics and the Economy." In *Chechnya at War and Beyond*, edited by Anne Le Huérou, Aude Merlin, Amandine Regamey, and Elizabeth Sieca-Kozłowski. London: Routledge, 2014.
- Blomberg, S. Brock, Hess, Gregory D., and Akila Weerapana. 2004. "An Economic Model of Terrorism." *Conflict Management and Peace Science* 21, no. 1: 17-28. <https://doi.org/10.1080/07388940490433882>
- Bourgoon, Brian. 2006. "On Welfare and Terror: Social Welfare Policies and Political-Economic Roots of Terrorism." *Journal of Conflict Resolution* 50, no. 2: 176-203.
- Europol. 2016. "North Caucasian Fighters in Syria and Iraq and IS Propaganda in Russian Language." November 10, [https://www.europol.europa.eu/sites/default/files/documents/edoc-801733-v1-redacted\\_-\\_north\\_caucasian\\_fighters\\_in\\_syria\\_and\\_iraq\\_and\\_russian\\_language\\_propaganda\\_.pdf](https://www.europol.europa.eu/sites/default/files/documents/edoc-801733-v1-redacted_-_north_caucasian_fighters_in_syria_and_iraq_and_russian_language_propaganda_.pdf)
- Global Terrorism Database. 2021. "Codebook: Methodology, Inclusion Criteria, and Variables." <https://www.start.umd.edu/gtd/downloads/Codebook.pdf>
- Gurr, Ted Robert. 1970. *Why Men Rebel*. Princeton: Princeton University Press.
- Hegghammer, Thomas. 2016. "Revisiting the Poverty-Terrorism Link in European Jihadism." In *Society for Terrorism Research Annual Conference*. Vol. 8. Leiden.
- Holland, Edward C., Frank D. Witmer and John O'Loughlin. 2017. "The Decline and Shifting Geography of Violence in Russia's North Caucasus, 2010-2016." *Eurasian Geography and Economics* 58, no. 6: 613-641. <https://doi.org/10.1080/15387216.2018.1438905>
- Ibragimov, Magomed-Rasul and Kimitaka Matsuzato. 2014. "Contextualized Violence: Politics and Terror in Dagestan." *Nationalities Papers: The Journal of Nationalism and Ethnicity* 42, no. 2: 286-306. <https://doi.org/10.1080/0905992.2013.867932>
- International Crisis Group Report № 238. 2016. "The North Caucasus Insurgency and Syria: an Exported Jihad?" <https://www.crisisgroup.org/europe-central-asia/caucasus/north-caucasus/north-caucasus-insurgency-and-syria-exported-jihad>

- Klimenko, Ekaterina, and Neil John Melvin. 2016. "Decreasing Violence in the North Caucasus: is an End to the Regional Conflict in Sight." <https://www.sipri.org/commentary/blog/2016/decreasing-violence-north-caucasus-end-regional-conflict-sight>
- Klimentov, Vassily A. 2021. "Bringing the War Home: the Strategic Logic of 'North Caucasian Terrorism' in Russia." *Small Wars and Insurgencies* 32, no. 2: 374-408. <https://doi.org/10.1080/09592318.2020.1788749>
- Krueger, Alan B., and David D. Laitin. 2008. "Kto Kogo?: A Cross-country Study of the Origins and Targets of Terrorism." In *Terrorism, Economic Development, and Political Openness*, edited by Philip Keefer, and Norman Loayza, 148-173. Cambridge: Cambridge University Press.
- Krueger, Alan B., and Jitka Malečková. 2003. "Education, Poverty and Terrorism: Is There a Causal Connection?" *Journal of Economic Perspectives* 17, no. 4: 119-144. <https://doi.org/10.1257/089533003772034925>
- Lee, Alexander. 2011. "Who Becomes a Terrorist? Poverty, Education, and the Origins of Political Violence." *World Politics* 63, no. 2: 203-245. <https://doi.org/10.1017/s0043887111000013>
- Lin, Jin-Lung. 2008. *Notes on Testing Causality*. Institute of Economics, Academia Sinica Department of Economics, National Chengchi University.
- Omelicheva, Mariya, and Clayton Webb. 2021. "Economic Crises and Terrorism: Analyzing Competing Economic Pressures on Terrorism in Russia." *Journal of Global Security Studies* 6, no. 3, ogaa041. <https://doi.org/10.1093/jogss/ogaa041>
- Patel, Geetanjali., and M.S. Annapoorna. 2019. "Public Education Expenditure and Its Impact on Human Resource Development in India: An Empirical Analysis." *South Asian Journal of Human Resources Management* 6 no. 1: 97-109. <https://doi.org/10.1177/23220937188134>
- Piazza, James A. 2006. "Rooted in Poverty? Terrorism, Poor Economic Development, and Social Cleavages." *Terrorism and Political Violence* 18, no. 1: 159-177. <https://doi.org/10.1080/095465590944578>
- Piazza, James A. 2011. "Poverty, Minority Economic Discrimination, and Domestic Terrorism." *Journal of Peace Research* 48, no. 3: 339-353. <https://doi.org/10.1177/0022343310397>
- Ratelle, Jean-François and Emil Aslan Souleimanov. 2016. "A Perfect Counterinsurgency? Making Sense of Moscow's Policy of Chechenisation." *Europe-Asia Studies* 68, no. 8: 1287-1314. <https://doi.org/10.1080/09668136.2016.1230842>



- Silaev, Nikolai, Natalya Samoylovskaya, Vasily Taran and Nikita Neklyudov. 2023. "Baza dannyh "Uroven' terroristicheskoy ugrozy i byudzhetye raskhody v Dagestane, Ingushetii, Kabardino-Balkarii." [*Database "The Level of Terrorist Threat and Budget Expenditures in Dagestan, Ingushetia, Kabardino-Balkaria."*]
- "Svidetel'stvo o registracii bazy dannyh RU 2023623136 dated September 18, 2023. RU 2023623136 ot 18.09.2023" [Certificate of registration of the database RU 2023623136 dated September 18, 2023]. Zayavka № 2023622907 ot 12.09.2023 [Application No. 2023622907 dated 09/12/2023]. <https://open.mgimo.ru/handle/123456789/8428>
- Souleimanov, Emil Aslan and Huseyn Aliyev. 2015. "Asymmetry of Values, Indigenous Forces, and Incumbent Success in Counterinsurgency: Evidence from Chechnya." *Journal of Strategic Studies* 38, no. 5: 678-703. <https://doi.org/10.1080/01402390.2014.952409>
- Stepanova, Ekaterina. 2019. "Russia's Response to Terrorism in the Twenty-First Century." In *Non-Western Responses to Terrorism*, edited by Michael Boyle. Manchester: Manchester University Press. <https://doi.org/10.7765/9781526157102.00010>
- Yarlykapov, Akhmet. 2016. "Russian Islam and the Situation in the Middle East." *Valdai Papers* #48, <https://valdaiclub.com/files/11423/>
- Youngman, Mark. 2020. "Crossing the Rubicon: Insurgent Violence in Kabardino-Balkaria and Its Limits." *Perspectives on Terrorism* 14, no. 6: 106-121.
- Zhirukhina, Elena. 2017. "Protecting the State: Russian Repressive Tactics in the North Caucasus." *Nationalities Papers* 46, no. 3: 374-399. <https://doi.org/10.1080/00905992.2017.1375905>



**Николај Силаев, Екатарина Арапова, Никита Некљудов, Васили  
Таран и Наталиа Самољовскаја**

***Шта новац може да уради?  
Како буџетски трошкови утичу на тероризам на  
Северном Кавказу***

**Сажетак:** Током последње деценије у Русији се десило евидентно смањење терористичких напада, што се поклопило са идејом Владе да се посвети социо-економском развоју у региону Северног Кавказа који је у историји био склон терористичким нападима. Овај чланак користи Грангеров тест да одреди да ли су владине економске политике имале утицај у смањењу терористичких активности у три републике: Дагестану, Ингушетији, и Кабардини Балкарија. Резултати показују да постоји директна веза између буџетских трошкова на националну економију и фреквенцију терористичких напада, тако да већи трошкови корелирају са повећањем напада у две од три републике, и то у Дагестану и Кабардино Балкарији. Супротно томе, улагање у људски капитал – операционализовано трошењем на образовање и здравство – доприноси смањењу терористичких активности у једној од три републике, и то Кабардино-Балкарији.

**Кључне речи:** Русија, Северни Кавказ, тероризам, буџетска потрошња