

Türkiye'de Terör Olaylarının Demokratik Açılım Süreci Perspektifinden İncelenmesi

Investigation of Terrorist Events in Turkey from the Perspective of Democratic Opening Process

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Abstract: The main purpose of this study is to investigate whether there is a long-term relationship among economic growth, military expenditure and democratic opening variables as a result of terrorist incidents in Turkey. In this regard, time series analysis has been used in the study for 1970-2015 periods. According to the findings, the impact of the democratic openings on the terrorist attacks varies in the short and long term. In other words, in the short term after the announcement of the democratic opening package, a positive impact on terrorism was witnessed. That is, after the announcement of the democratic opening package, the terrorist incidents reduced significantly. But this effect disappeared in the long run. This results shows that the economic and social solutions is more effective than the spending on the military forces (such as defense spending, military spending etc.) to reduce the terrorist attacks.

Keywords: Democratic Opening, Defense Expenditure, Economic Growth, Cointegration.

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Özet: Bu çalışmanın temel amacı, Türkiye'deki terör olaylarının sonucu olarak ekonomik büyüme, askeri harcama ve demokratik açılım değişkenleri arasında uzun vadeli bir ilişki olup olmadığını araştırmaktır. Bu bağlamda, çalışmada 1970-2015 dönemleri için zaman serisi analizi kullanılmıştır. Bulgulara göre, demokratik açılımların terör saldırıları üzerindeki etkisi kısa ve uzun vadede farklılık arz etmektedir. Diğer bir ifadeyle, demokratik açılış paketinin ilanından kısa bir süre sonra terörizm üzerinde olumlu bir etki yaratmıştır. Yani, demokratik açılış paketinin ilanından sonra, terör olayları önemli ölçüde azalmıştır. Fakat bu etki uzun vadede kaybolmuştur. Bu

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sonuçlar, ekonomik ve sosyal çözümlerin, terörist saldırıları azaltmak için askeri kuvvetler harcamasından (savunma harcamaları, askeri harcamaları vb.) daha etkili olduğunu göstermektedir.

Anahtar Kelimeler: Demokratik Açılım, Savunma Harcamaları, Ekonomik Büyüme, Eşitlenme.

Introduction

Terrorism is an old concept as human history. The concept of terrorism is based to until combat terrorism against the Romans and the Sicarii in the B. C. 7366 (Dedeoğlu, 2003: 315; Kutlu, 2010: 16). However, to be used as a systematic tool is based on the organization in the Assassins led by Hasan Sabbah, which emerged in the 13th century in the Middle East (Akgün, 2006: 410).

Terrorism in the modern sense comes from French word "terror" which mean extreme fear and anxiety that created special effects on non-rational individual and usually means the interplay of unconscious reaction (Wilkinson, 2002: 142; Kılıç, 2007: 4; Uytun, 2009: 8; Akçay and Çelenay, 2012: 184). Caşın, (2008: 224) makes a description as follows: Although etymologically "Terror-Terreri" words that followed the French Revolution Jacobin "Fear (Terror) Reign" associated with it, although etymologically "Terror-Terreri" words that followed the French Revolution Jacobin "Fear (Terror) Reign" associated with used, actually extends up to the phenomenon of terrorism is a very old Adam "is tradition."

Terror and Terrorism are conceptually linked, according to Michael, (2007: 36), terrorism is people with political views, which he described as having socio-cultural values and norms they want to impose on society through violence. According to another definition, Terrorism is actions, which created fear and chaos using violence or threats of action in the targeted sectors. (Caşın, 2008:102-103).

Especially, the concept of terrorism is one of the social events winning universality all over the world in recent years (Yeniçeri and Dönmez, 2008: 94). The concept of terrorism, which has a long history, has become one of the international community's unwavering agenda since 1960s (Altay, Ekinci and Peçe, 2013: 269). Terrorist acts are, taking place in many parts of the world and the bombing of government buildings, multinational companies, the kidnapping of passenger airplanes and ships; Diplomatic representations, airports, shopping centers, sometime the attack that attacks are conducted against the subway and train stations, government officials,

the kidnapping of diplomats and businessmen, or in different ways, such as the assassination of these people and the confrontation of international community (Topal, 2004: 1).

Terror and Terrorism can lead to a substantial loss to the economy of the country. These losses are mainly due to uncertainties brought about by the confidence lost with terrorism and transferring a significant portion of the country's resources to military spending (Karagöz, 2016: 5). On the other hand terrorist can also target directly key sectors of economics. These results suggest that the purpose of terrorism, which aims to achieve political and economic demands of the illegitimate way, is a clear indication of the government to intimidate and create fear and horror in the society. In other words, the purposes of terrorism reach a political goal by creating a pressure on political authority and digesting public interest through violence (Karaduman and Batu, 2011: 361).

As stated above, terrorism creates fear and horror in society, pose a threat in many areas mainly the country's economy. Thus, due to the deep influence of terrorism on social and political life in the country, it's also affects economic development negatively (Frey et al., 2004: 2, Uysal et al., 1999: 2). The main reason for the targeting of the economy, the state of economic development (hence government) is that it is the most important indicator of success. In fact, terrorist activities, despite targeting to disrupt the macroeconomic stability in the country, including the economy, the success of these activities is the creation of effective violence in society (Yalçınkaya, 2008: 4). Consisting of weak economic structure in the country, the terrorist organization that facilitates the society and the state to manipulate in one direction, it will cause panic and collapsing into anarchy that dominated the economy. It is a fact that there is a direct and indirect relationship between terrorism and the economy. However, the direction of this relationship may be double-sided to show the interaction. Therefore, counter-terrorism strategy should include the economy.

Another consideration is the acts of terrorism on the factors of production (such as labor, capital) are in turn negatively affected. Moreover, economic decision units; production, consumption, savings and investment decisions point gives rise to negative externalities by creating uncertainty in the economic structure (Başbüyük et al., 2011: 33). One of the important places among the objectives of the country's basic economic policy is economic growth. More detailed information written in recent years with some of the locals' theoretical studies about terrorism and its economic losses are

follows: Ağır and Kar (2010), Öcal and Yıldırım (2010), Altay et al., (2013) and Ak et al., (2015).

The rest of the article is structured as follows: the second part contains literature review, and Section III includes data and methodology. In Section IV, the econometrical results are reviewed while Section V covers the concluding remarks.

Literature Review

This section presents the previous studies conducted to look at the aspects of terrorism. Similarly, there are many studies in the literature about the relation between economic variables and terror. Several researchers, takes into account the world or various countries or groups of countries, by investigating the effects of terrorism on economies. In general, different methods are being used in these studies. But, in these research, where there is the country, period and methodological differences, there is a consensus, that terror have a negative impact on macroeconomic variables such as economic growth. The main difference observed in study is about the impact of violence.

Considering the investigation of a negative impact of terrorism on national economies, it is seen that it's begin in the late 1960s (Ak et al., 2015).

Abadia and Gardeazabal (2002) studies have examined the relationship between terrorism and GNP in Basque Countries. Their finding concludes that, after the outbreak of terrorism in the late 1960's, per capita GDP in the Basque Country declined about 10 percentage points relative to a synthetic control region without terrorism.

Gupta et al., (2002) investigated the fiscal effects of armed conflict and terrorism on low and middle income countries. They found that armed conflict is associated with lower growth and higher inflation, and has adverse effects on tax revenues and investment. It also leads, to higher government spending on defense, but this tends to be at the expense of macroeconomic stability rather than at cost of lower spending on education and health.

Tavares (2004) conducts a systematic investigation of the incidence and economic costs of terrorist attacks at the country level. Tavares (2004) found that rich countries are the most prone to suffer attacks while democracies are, if anything, less vulnerable than other countries. Also, World Bank study estimates at 4 percent of GDP the cost for the Israeli economy, while World Bank study estimates that the Palestinian territories suffered a 50

percent decline in income per capita between 1994 and 2002 (Tavares, 2004:1044).

Blomberg et al. (2004) perform an empirical investigation of the macroeconomic consequences of international terrorism and interactions with alternative forms of collective violence. Their analysis was based on a rich unbalanced panel data set with annual observations on 177 countries from 1968 to 2000. They find that, on average, the incidence of terrorism may have an economically significant negative effect on growth, albeit one that is considerably smaller and less persistent than that associated with either external wars or internal conflict.

For Turkey, Uysal et al., (2009) have concluded that terrorism negatively affected the economic growth in 1992-2001 periods. According to Sezgin (2003) that look about the defense spending, terrorism and the economy, the security and stability in the countries is the main condition of development in the economic sense. There are two options in front of the government to refrain from acts of terrorism. The first is to further increase defense spending, the second is to make education and health spending to upgrade the welfare of people who might be associated with terrorist acts.

Gaibulloev and Sandler (2009) quantifies the impact of terrorism and conflicts on income per capita growth in Asia for 1970–2004. Their panel estimations show that transnational terrorist attacks had a significant growth-limiting effect. An additional terrorist incident per million persons reduces gross domestic product (GDP) per capita growth by about 1.5%. Asian developed countries, however, manage to sustain terrorist attacks without displaying growth consequences. For Asian developing countries, transnational terrorism curbs income per capita growth primarily by stimulating government security spending, which diverts resources from more productive private and public investments. General terrorism, as measured by GTD, does not influence economic growth directly but indirectly by reducing investment shares.

Sungur (2010) are surveys about discourses that were reflected by written media. According to Sungur (2010), when the Democratic evolution issue was opened to public opinion, many different voices were heard: from political parties, non-governmental organizations, and other parts of the society. Along the way, differences in discourse among various media organizations were observed in the manner in which the issue was covered and presented to the public. The social intensity/competence building attribution of the media can be seen as the basic reason for these differences.

The aim of Altay et al., (2013) is look at the impacts of terror in the Middle-East on the economics of countries. In order to identify the impacts of terror on economy within this region; data of economic variables like export, import, economic growth, tourism, foreign direct investments, unemployment and income per capita were subjected to the analysis. Research in which panel data analysis method was used includes the data between 1996 and 2010. Negative impacts of terror on all economic variables, especially tourism, were clearly seen in the research.

Akıncı et al., (2014) using total of 152 countries data from 2002 to 2011, which are 45 advanced, 77 emerging and 30 underdeveloped countries, made the two-stage least squares analysis. According to the results, the terrorist attacks in the three groups of countries are disrupting the growth process of raising the level of inflation. In other words, acts of terrorism negatively affect the growth over inflation. On the other hand, this effect is stronger in developing and least developed countries.

Younas (2015) identifies the damaging influence wielded by terrorism on the economy. It investigates whether international openness limits the negative consequences of terrorism on economic growth. The analysis is focused on 120 developing countries over the period 1976–2008. The positive interaction effect of terrorism and globalization suggests that the latter ameliorates the adverse impact of the former on growth. The result helps explain why the growth consequences of terrorism vary across nations and hold important policy implications.

Although it is possible to detail these studies, Ak et al. (2015) made a theoretical study that summarizes the literature investigating the relationship between economic growth and terrorism. As a result of theoretical research, they have reached the conclusion that there is an inverse relationship between the literature of terror and the economic growth. In addition, Ak et al. (2015) says that studies in literature are insufficient; the number of work should be increased by new approaches and methods.

As can be seen, studies reveal a clear and unambiguous manner that terrorism has negative effects on the national economy and macroeconomic variables. This study aims to demonstrate the adverse effects of terror on the country's economy, which is classified by low, medium and high income economies. According to addressing income distribution of countries used in the study and due to the relatively large number of data will contribute to the literature.

Data and Methodology

In this study, it is examined whether the independent variables such as defense spending, economic growth, military spending and democratic opening are having an effect on terrorist incidents. Therefore, the study employs the Turkey's data, covering the periods 1970-2015. Terror index ($TEROR_t$) are formed as $\log(1 + \text{number of events})$, based on the work of Eckstein and Tsiddo (2004) and Persitz (2006). The economic growth (GRW_t) variable shows annual growth rates of the Turkey while the Defense Expenditures (DE_t) and Military Expenditures (ME_t) in GDP is taken from Stockholm International Peace Research Institute (SIPRI). In addition, a project of the Democratic Opening (Resolution process, peace process, DO), initiated by Turkey's 60th Government Prime Minister Recep Tayyip Erdogan, as a respect for human rights, improving democracy, freedoms and standards in Turkey was also taken into consideration. Likewise, the Democratic Opening (DO) is set as a dummy variable and it takes zero value for before 2009 and one for after 2009.

Firstly in this study, the unit root test is analyzed to show the stationarity properties of the variables. For this purpose, ADF (1979), PP (1988) and KPSS (1992) unit root tests are used, by considering the fact that these tests are frequently used as in the literature. The ADF (1979) test is tested on three models shown as follows:

$$\Delta Y_t = \delta Y_{t-1} + \sum_{j=1}^p \delta_j \Delta Y_{t-j} + \varepsilon_t \quad (1)$$

$$\Delta Y_t = \mu + \delta Y_{t-1} + \sum_{j=1}^p \delta_j \Delta Y_{t-j} + \varepsilon_t \quad (2)$$

$$\Delta Y_t = \mu + \beta t + \delta Y_{t-1} + \sum_{j=1}^p \delta_j \Delta Y_{t-j} + \varepsilon_t \quad (3)$$

Where p is optimal lag length and $\varepsilon_t \sim \text{IID}(0, \sigma^2)$ is white noise (WN) process. The Phillips and Perron (1988, PP) proposed nonparametric transformations of the τ statistics from the original DF regressions such that under the unit root null, the transformed statistics (the "z" statistics) have DF distributions. In other words, the Phillips-Perron test makes a non-

parametric correction to the t-test statistic. The test is robust with respect to unspecified autocorrelation and heteroscedasticity in the disturbance process of the test equation. Kwiatkowski–Phillips–Schmidt–Shin (KPSS, 1992) tests are used for testing a null hypothesis that an observable time series is stationary around a deterministic trend (i.e. trend-stationary) against the alternative of a unit root.

If the variables used in the model are integrated in the same order, such as Engle Granger (1987) or Johansen (1988) approaches are used for investigating the long term relationship between these series. But, if the series are integrated in different orders, the ARDL bound test approach used for the long-run relationship between the series developed by Pesaran et al. (2001). The ARDL bound co-integration test model can be shown as follows:

$$\begin{aligned} \Delta \text{TEROR}_t = & \alpha + \sum_{j=1}^m \beta_{1i} \Delta \text{TEROR}_{t-j} + \sum_{j=0}^n \beta_{2i} \Delta \text{GRW}_{t-j} + \sum_{j=0}^p \beta_{3i} \Delta \text{DE}_{t-j} + \sum_{j=0}^r \beta_{4i} \Delta \text{ME}_{t-j} \\ & + \delta_1 \text{TEROR}_{t-1} + \delta_2 \text{GRW}_{t-1} + \delta_3 \text{DE}_{t-1} + \delta_4 \text{ME}_{t-1} + \varepsilon_t \end{aligned} \quad (4)$$

Where $\varepsilon_t \sim \text{IID}(0, \sigma_\varepsilon^2)$ is white noise (WN) process. After estimating Eq. (4), it is necessary to perform the ARDL boundary test to determine whether there is a long-term relationship between the variables. The boundary test is carried out under the following hypotheses:

$$\begin{aligned} H_0 : & \delta_1 = \delta_2 = \delta_3 = \delta_4 = 0 \\ H_1 : & \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq 0 \end{aligned} \quad (5)$$

If the null hypothesis is rejected, it is reached that there is a long-term relationship between the variables. But, if the null hypothesis is non-rejected, there is no long-term relationship between the variables. If there is co-integration between the variables, long term and short-term relationships can be estimated.

$$\begin{aligned} \text{TEROR}_t = & \alpha_0 + \sum_{j=1}^m \alpha_{1j} \text{TEROR}_{t-j} + \sum_{j=0}^n \alpha_{2j} \text{GRW}_{t-j} + \sum_{j=0}^p \alpha_{3j} \text{DE}_{t-j} \\ & + \sum_{j=0}^r \alpha_{4j} \text{ME}_{t-j} + \varepsilon_t \end{aligned} \quad (6)$$

Where, the model is known as ARDL (m, n, p, r) model. Lag lengths (m, n, p, r) are determined using information criteria such as AIC, SIC, HQ. After the model is estimated, if the model is diagnostically tested and if the model is suitable, then the Error Correction Model (ECM) is estimated as follows:

$$\begin{aligned} \Delta \text{TEROR}_t = & \alpha_0 + \sum_{j=1}^m \gamma_{1j} \Delta \text{TEROR}_{t-j} + \sum_{j=0}^n \gamma_{2j} \Delta \text{GRW}_{t-j} + \sum_{j=0}^p \gamma_{3j} \Delta \text{DE}_{t-j} \\ & + \sum_{j=0}^r \gamma_{4j} \Delta \text{ME}_{t-j} + \gamma_5 \text{ECT}_{t-1} + \varepsilon_t \end{aligned} \quad (7)$$

Where γ_5 is the parameter of Error Correction Term (ECT_{t-1}). It is expected that this parameter will be estimated between $-1 < \gamma_5 < 0$ and statistically significant.

Econometrical Results

The first part of this result is to investigate the stationarity properties of the variables. The first step in unit root tests is to determine the appropriate model structure and the number of lag lengths for each series. For this purpose, we have carried out strategic tests with the intercept and trend model to none (no intercept and trend) model for each of the series. Accordingly, the appropriate model for the TEROR_t and GRW_t variables is intercept (no trend) model, for the DE_t series the appropriate model is none model, for ME_t series the appropriate model is intercept and trend model. Another issue is that we have found the number of lag lengths in the models by using the Breusch-Godfrey LM test statistics in addition to information criteria such as AIC, SIC, HQ. Table 1 shows the results of the three unit root tests.

Table 1: Unit Root Tests Results

VARIABLES	ADF	PP	KPSS
TEROR _t	-4.3262 ^a	-4.3056 ^a	0.2713
GRW _t	-6.7808 ^a	-6.8868 ^a	0.0657
DE _t	-1.1101	-1.1005	-
ΔDE _t	-6.3008 ^a	-6.3054 ^a	-
ME _t	-2.9531	-2.9061	0.1461 ^b
ΔME _t	-7.2853 ^a	-8.4006 ^a	0.0936

Note: ^a significant at 1%. ^b significant at 5%.

According to Table 1, While TEROR_t and GRW_t variables are stationary, DE_t and ME_t variables are non-stationary. In that case, TEROR_t and GRW_t variables are I(0), DE_t and ME variables are I(1). Because of the different degrees of integration of the variables, it would be more appropriate to use the ARDL approach to investigate the existence of a long-run relationship between these variables. The first step of the ARDL approach is to determine the appropriate lag lengths for each of the variables. For this purpose, again, AIC, SIC, HQ and LM tests can be used. In the study, the maximum lag lengths were taken for 6 periods for both endogenous and exogenous variables. Accordingly, the lowest AIC, SIC and HQ values were obtained for the ARDL (1, 0, 0, 0).

Firstly, for the ARDL test to be valid, the bound test must be performed. In Table 2, Pesaran et al. (2001) bound test and diagnostic test results are shown.

Table 2: ARDL Ridge Test Results

Tested Model	TEROR = f(GRW, DE, ME, DO)
F-statistics	4.1638 ^b

Optimum Lag Length	[1, 0, 0, 0]	
Significance Levels	Critical Values Bounds	
	Lower Bound	Upper Bound
1 %	3.65	4.66
5 %	2.79	3.67
10 %	2.37	3.20
Diagnostic Test Results		
R ²	0.3515	
\bar{R}^2	0.2683	
F-STATISTICS	4.2272 ^a	
BREUSCH-GODFREY LM	0.0474	
ARCH LM	1.7957	
RAMSEY RESET	0.3121	

Note: ^a significant at 1%. ^b significant at 5%.

The null hypothesis will be rejected because the F-statistic value (4.1638) calculated for the bound test in Table 2 is greater than the upper critical value of 3.67 at the 5% significance level. That is, according to the ARDL bound test, there is co-integration relationship between the variables. Then there is a long-run relationship between TEROR_t and GRW_t, DE_t, ME_t and DO variables.

Secondly, Table 2 provides diagnostic test results for co-integration. When Table 2 is examined, the model is generally meaningful; there are no autocorrelation problems, no heteroscedasticity problem, and no specification problem. Thus, in order to demonstrate the long- and short-term relationships between variables, the long-run combined model and the error correction model results are given in Table 3.

Table 3: Long-Run and Error Correction Models Estimation Results

Panel A: Long Run Model Results			
Variables	Coefficients	Std. Errors	t-Statistics
GRW _t	-0.169406	0.089262	-1.897851 ^c
DE _t	-0.960582	0.532373	-1.804339 ^c
ME _t	0.981872	0.725590	1.353205
DO	-0.058062	1.254502	-0.046283
CONSTANT	4.493262	2.095558	2.144184 ^b
Panel B: Short Run and Error Correction Model Results			
Variables	Coefficients	Std. Errors	t-Statistics
ΔGRW _t	-0.125725	0.033977	-3.700284 ^a
ΔDE _t	-0.570142	0.414045	-1.377003
ΔME _t	0.476114	0.463284	1.027693
DO	-2.574502	1.314755	-1.958161 ^c
ECT _{t-1}	-0.709637	0.143863	-4.932720 ^a

Note: ^a significant at 1%. ^b significant at 5%, ^c significant at 10%.

Firstly, Panel A shows the long-run relationship results in Table 3. According to this result, it is seen that there is a negative and statistically significant relationship between economic growth (GRW_t) and terrorism (TEROR_t) in the long run. Based on this, if economic growth increases by 1%, terrorist incidents decrease by 0.17%. In other words, economic growth has an impact on the reduction of terrorist incidents in the long run. Similar results were obtained for the defense expenditure (DE_t) variable. That is, terrorist incidents are found to decrease when defense spending increases in the long run. This parameter was statistically significant at 10% level. If defense spending increases by 1% over the long term then terrorist incidents will decrease by 0.96%. The negative relationship between economic growth and defense spending is well suitable to expectations. The important point

to note here is that defense spending (DE_t) is more effective in reducing terror than economic growth. However, contrary to expectations between military expenditures and terrorist incidents, a positive parameter has been estimated. It is also not statistically significant.

Finally, the democratic openings (DO) in Turkey have been added to the long-term model as a dummy variable. In order to see the effect of the democratic opening package, this dummy variable added to the model is interpreted as follows. According to long-term estimates, the democratic opening variable was found to be negative but not having a statistical significant effect on the reduction of terrorist incidents.

Table 3 Panel B shows both short-term and error correction results. First, the error correction term (ECT_{t-1}) was negative and statistically significant as expected. That is, the imbalances that occur in the short term are removed from the long term and the series are again close to the long term equilibrium values. Therefore, the error correction model is valid.

Secondly, when the parameters affecting the short term are examined, the following conclusions are reached. In the short term, it was found that there is a negative relationship between economic growth and terrorism. That is, if the economic growth in the short term increases by 1%, the terrorist incidents decrease by about 0.13%. The parameter was statistically significant at 1% level. The impact of defense spending on terrorist incidents was again found to be negative, as expected. However, the parameter was not statistically significant. In addition, in the long run as in the short term, the increase in military expenditure has not been effective on terrorist incidents.

Finally, in the short run, the impact of the package of democratic opening on terrorism is negative and statistically significant as expected. After the introduction of the new democratic opening package, it was seen that there was a decrease of about 2.6% in the terrorist incidents according to the preliminary. As a result, when the error correction model estimation results are examined, it is concluded that democratic opening is the most important factor in reducing the terrorist incidents.

Concluding Remarks

Terror because it can serve many purposes, it can cause damage to the country in many ways. In this study, we have tried to put forward the important factors that can reduce the terrorist incidents. For this purpose, taking into account the terrorist incidents that took place in Turkey between 1970 and 2015, independent variables such as defense expenditure, economic

growth, military expenditure and democratic opening have been investigated to find out whether these variables have an effect on terrorist incidents. The results obtained in the short run and long term is presented as follows.

In the study as expected, it was found that there is a negative effect between the terrorist incidents and the economic growth in Turkey. This negative effect is valid both in short-run and long term. When the country's economy worsens, both short and long-term terrorist incidents are increasing. On the contrary, in the improvement of the country's economy, terrorist incidents are also decreasing in both short-run and long term.

The effect of defense expenditure on terrorist incidents has also been found to vary in the short and long term. That is, defense expenditure has no impact on terrorist incidents in short-term. However, the increase in defense spending in the long term has a mitigating effect on terrorist incidents. Both short and long term effects of military expenditures on terrorist incidents have not been found.

Finally, as a turning point in terms of Turkey, the impact of the democratic opening on terrorist incidents varies in the short run and in the long term. In other words, after the announcement of the package of democratic opening, a positive effect on the terrorist incidents in the short term is observed. After the package of new democratic is initiated, there has been a decline in terrorist incidents. However, this effect has not been observed in the long term. The economic growth and democratic opening variables in the short term and economic growth variable were statistically significant in the long term. This results shows that the economic and social solutions is more effective than the expenditure on the military forces (such as defense spending, military spending etc.) in reducing the terrorist attacks.

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