The Impact of International Terrorism on Economic Growth in OECD Countries

Sinan Çınar[1,2], Banu Has[3]

ABSTRACT

Terrorism is a phenomenon that influences various disciplines and directly impacts international relations and the global economy. Studies in this field encompass different countries and groups of nations. The aim of this study is to determine the effects of terrorism on international relations and economic growth at the global level. The relationship between terrorism and economic growth is examined specifically within OECD countries, covering the period from 2010 to 2022. This study contributes to the literature by investigating the relationship between terrorism and the economy, focusing on the established model, methodology, and relevant country groups. Dynamic Panel Data Analysis is employed, utilizing the 2-stage System GMM method. According to the analysis, a one unit increase in global terrorism is found to decrease economic growth of countries by 0.19 units at the international level.

Anahtar Kelimeler: Global Terrorism, International Relations, Economic Growth, System GMM.

OECD Ülkelerinde Uluslararası Terörizmin Ekonomik Büyüme Üzerindeki Etkisi

ÖZET

Terör, çeşitli disiplinler üzerinde etkili olan bir olgudur ve uluslararası ilişkileri ile iktisadi dünyayı doğrudan etkiler. Bu alandaki çalışmalar, farklı ülkeler ve ülke gruplarını kapsamaktadır. Bu çalışmada, terörizmin uluslararası düzeyde ülkeler arası ilişkiler ve iktisadi büyümeye etkilerinin belirlenmesi amaçlanmıştır. Terörizm ile iktisadi büyüme ilişkisi, OECD ülkeleri üzerinde incelenmiştir ve 2010-2022 dönemini kapsamaktadır. Bu çalışma, kurulan model, kullanılan yöntem ve ilgili ülke grupları üzerinde terörizm ve ekonomi ilişkisini inceleyen bir çalışma olması bakımından literatüre katkı sağlamaktadır. Dinamik Panel Veri analizi kullanılarak, 2 aşamalı sistem GMM yöntemi uygulanmıştır. Yapılan analizlere göre, küresel terörizmdeki bir birimlik artışın uluslararası düzeyde ülkelerin iktisadi büyümelerini 0.19 birim azalttığı tespit edilmiştir.

Keywords: Küresel Terörizm, Uluslararası İlişkiler, İktisadi Büyüme, Sistem GMM.

1 İletişim Yazarı: sinancinar110@gmail.com
2 Doktorant, Ege Üniversitesi, Sosyal Bilimler Enstitüsü, İktisat Anabilim Dalı, ORCID: 0000-0002-2756-5875.
3 Dr. Öğrt. Üyesi, Okan Üniversitesi, İşletme ve Yönetim Bilimleri Fakültesi, Ekonomi-Finans Bölümü, ORCID: 0000-0001-7693-8490.

1.INTRODUCTION

Economic growth in national economies can occur depending on various factors (Has and Çınar, 2022, p. 8). The concepts of economic growth and economic development are of paramount importance for all nations, particularly for developing and undeveloped countries. Identifying the determinants of economic growth and development is crucial for national economies. Policymakers design and implement strategies in alignment with macroeconomic objectives based on these determinants (Has and Çınar, 2022, p. 257).

Terrorist activities represent severe threats to all countries. The term "terrorism" originates from the Latin word "terrere." In French, "terreur" translates to "terrorism," which is rendered as "terror" in English. It literally means to instill fear, terrorize, and intimidate individuals and societies (Kılıç, 2007, p. 4). Given that terrorism is influenced by various factors, there is no universally accepted definition. The concept of terrorism is generally perceived as broad and vague, making it challenging to define due to its evolving nature and diverse objectives. Therefore, it is understandable that terrorist activities lack an objective definition, unlike other crimes involving force and violence (Topal, 2004, p. 5). According to the Global Terrorism Index (2019), terrorism involves the use of illegal force by non-state actors within countries to achieve their goals through fear and oppression.

Analyzing the history of terrorism reveals a long and complex trajectory. Some studies even suggest that terrorism dates back to the inception of humanity (Bayar, 2022, p. 73). The advent of modern terrorism is generally traced to the French Revolution. It is believed that modern terrorist activities originated during this period and have since evolved (Mannik, 2009, p. 151).

Terrorism, as a concept, has numerous definitions due to its interaction with various disciplines. The proliferation of terrorism studies worldwide has led to a diverse array of definitions in the literature. An examination of these definitions reveals that terrorism is often characterized as a premeditated system designed to achieve political, religious, and ideological objectives through violent acts (Bergesen and Han, 2005, p. 134). As a concept, terrorism represents the systematic use of violence to achieve policy objectives (Then and Loosemore, 2006, p. 157). Until the 1990s, terrorism was primarily regarded as a national issue. However, it has since evolved into an international concern. Today, terrorism is recognized as a global political issue, posing significant challenges to countries worldwide. Terrorist incidents can have detrimental political and economic impacts within and between nations. For terrorist incidents to have an internationally influential impact, they must serve a political purpose (Blomberg et al., 2004, p. 2010).

Terrorism is a multidimensional phenomenon that affects various sectors. Beyond its political and international relations dimensions, terrorism also has significant economic implications. Terrorist activities, which influence countries' foreign policies and domestic politics, inflict serious economic damage and structurally undermine economies. Given their limited resources, countries must allocate these resources most efficiently. The existence of terrorism compels nations to divert a portion of their resources to combat it, placing them in a challenging position and hindering their ability to meet other essential needs. Additionally, terrorism instills fear and exerts pressure on individuals within affected countries, leading to psychological distress that impairs their productivity. The disruption to daily life caused by terrorism further hampers individuals' ability to be productive, thereby negatively impacting the economy. Thus, terrorism significantly affects countries both in terms of international relations and economic stability.

The literature contains numerous studies analyzing the effects of terrorism on economic growth, with evaluations across different country groups. Key studies in this area include those by Greenbaum et al. (2007), Gaibulloev and Sandler (2008), Gries et al. (2011), Meierrieks and Thomas (2012), Ağırman et al. (2014), Choi (2015), Çınar (2017), Bayar and Gavriletea (2018), Şit and Karadağ (2019), Liapina (2019), Gökçe and Kaya (2021), and Hunter (2021). However, there is a notable gap in the literature regarding the impact of terrorism on economic growth specifically for OECD countries. This study aims to fill that gap by being the first to examine the impact of terrorism on economic growth in OECD member countries. In light of this context, the research question posed by this study is: "What is the impact of international terrorism on economic growth in OECD countries?" The study will analyze these effects using a primary and an alternative hypothesis. The primary hypothesis (Ho) is "International terrorism has no effect on economic growth," while the alternative hypothesis (H1) posits that "International terrorism has an effect on economic growth. This study spans the period from 2010 to 2022 and aims to uncover both the international relations and economic impacts of terrorism. The research employs a Dynamic Panel Data Analysis, utilizing the 2-stage System GMM method. The study is structured as follows: the introduction provides an overview, the second section discusses the international effects of terrorism, the third section examines the relationship between terrorism and

economic growth, the fourth section details the data set and model, the fifth section outlines the methodology, the sixth section presents and evaluates the findings, and the seventh section offers the conclusion.

2. INTERNATIONAL IMPACTS OF TERRORISM

To effectively evaluate terrorist activities, it is essential first to understand the concept of terrorism. Terrorism is an extremely complex phenomenon, and due to its interaction with numerous elements, providing a general definition is challenging. Terrorist activities have various aims and functions. Primarily, terrorism seeks to undermine established authority and instill fear in individuals and communities within the affected country. It aims to encourage opposition forces against the government and play a crucial role in their mobilization. Terrorist activities strive to disrupt the functions of all institutions, particularly economic and political ones, within a country. Additionally, terrorism seeks to influence public opinion through violent actions (Ergil, 1992, p. 140).

In contemporary contexts, terrorism manifests in various forms and can have diverse effects both nationally and internationally. The main types of terrorism generally include:

    a. National terrorism

    b. State terrorism

    c. State-sponsored terrorism

    d. International terrorist activities

    e. Transnational terrorist activities

    f. Cyber terrorism

    g. Modern terrorism (Şimşek, 2016, p.323-326).

The concept of terrorism, which was largely perceived as a national issue until the 1990s, has increasingly been recognized as an international concern since then. Terrorist incidents on the international stage demonstrate that terrorism has acquired a global dimension. Terrorism no longer occurs solely within the borders of the country where it originates; it now poses significant problems for other nations as well. Terrorist groups no longer confine their activities to their home countries but establish connections with similar groups abroad. These interconnected groups provide mutual support, leading to serious international challenges. In response, organizations such as the United Nations, the European Union, the Organization for Security and Co-operation in Europe, and the Council of Europe have proposed various strategies for international cooperation to combat terrorism (Kaya, 2005, p. 32). The involvement of individuals in terrorist activities is closely related to the social and political environment in which they live. Individuals typically unite and participate in terrorist acts based on shared beliefs, perspectives, and identities. Within this framework, individuals may encounter radical organizations and become involved in terrorist activities due to influences from national or international conditions (Caşın, 2008, p. 160). This situation poses a danger to nations where individuals engage in terrorist activities at both national and international levels.

Terrorist activities must be addressed as an international issue due to their global impact and economic repercussions. Terrorism can sometimes have economic objectives, although at other times, its motives may not align with economic goals. Regardless of its direct economic purpose, terrorism undoubtedly thrives in regions with unfavorable economic conditions. Income inequality, for instance, can lead to societal unrest, accelerating the emergence and spread of terrorism in affected regions (Türkiye Barolar Birliği, 2006, p. 177). Countries exposed to terrorist activities are compelled to implement various measures as part of their counter-terrorism efforts. The cost of these measures is directly proportional to the intensity of terrorist activities within a country. While some nations or groups of nations take measures against terrorism, they often face challenges in financing these efforts. This situation not only affects the countries directly involved but also has broader implications for other nations. Countries that must allocate a significant portion of their budgets to combat terrorism often struggle to meet other essential needs. This fiscal strain can have ripple effects, particularly through foreign trade. Limited resources pose a challenge for nations needing to allocate funds to combat terrorism, and this situation affects other countries by impacting both bilateral political and trade relations. Consequently, international trade is adversely affected by the necessity of diverting resources to counter-terrorism efforts.

3. TERRORISM AND ECONOMIC GROWTH

With globalization, the integration of financial markets, and factors such as terrorism, numerous uncertainties have emerged in the economic world. Analyzing global terrorist activities reveals an increasing impact, as evidenced by the rising number of casualties each year. One of the most significant characteristics of terrorist activities is their unpredictability. It is extremely challenging to foresee the consequences of unexpected events and situations. Although these activities occur outside the economic realm, they have a profound impact on the economy, influencing economic decisions for both individuals and policymakers. Economists have long been interested in the economic consequences of both war and peace, researching the subject extensively. However, terrorism, being an unforeseen and uncommon occurrence, poses a challenge for economists to incorporate into economic models. Terrorist activities generally have a very adverse impact on consumption, investment, and public expenditures. The short-term effects of terrorism include the loss of lives, search and rescue operations, and impacts on both material and moral aspects. These immediate consequences can yield short-term economic results. The direct economic costs caused by terrorism typically occur in the short term and are lower compared to other economic costs. Indirect costs, which are additional costs of terrorism, vary from country to country depending on the economic situation and timing (Alp, 2013, p. 2).

There may be economic motivations behind terrorist activities. However, even when economic reasons are not the primary cause, terrorist activities can have profound economic consequences. Despite variations in their execution, terrorist activities share a common core objective: to pressure political governments into making political concessions. In this context, terrorist activities often target economically vulnerable sectors within countries. These actions aim to weaken the government by imposing economic costs on the nation's economy (Alpağut, 2021, p. 699). Countries and groups of countries subjected to terrorist attacks may experience significant increases in defense expenditures within their public budgets. Consequently, the share of defense spending in public expenditures rises, proportionate to the preferences of the affected nations. Terrorist activities represent a significant opportunity cost for these countries. As is widely known, economic resources are limited, and the allocation of these resources varies based on the priorities and macroeconomic objectives of policymakers. The mandatory increase in defense expenditures in countries experiencing terrorist activities often leads to reduced spending in other areas, particularly in nations with constrained resources. While some Keynesian economists argue that defense expenditures can have a multiplier effect and contribute positively to the economy, the reduction in other expenditures creates negative outcomes. For instance, an increase in defense spending in a country with limited resources can lead to a decrease in public expenditures on education and health. This shift can result in long-term issues related to health and the development of human capital.

Terrorist activities instigate uncertainty within a country, affecting not only the investment decisions of domestic firms but also dissuading potential investments from foreign entities. Particularly in regions plagued by terrorism, firms refrain from initiating new investments due to heightened uncertainties. An escalation in terrorist acts within these regions results in diminished investments and an uptick in public expenditures (Blomberg et al., 2004, p. 19). The occurrence of terrorist activities within a country leads to a reduction in investments and employment opportunities, consequently dampening domestic demand. This decline in domestic demand can have adverse effects on the economy.

Factors such as fear and uncertainty stemming from terrorist activities are closely intertwined with tourism. Tourist activities decrease in regions and countries afflicted by terrorism. Tourism serves as a critical economic sector, generating income, fostering direct, indirect, and induced employment opportunities, promoting regional economic development, and alleviating countries' balance of payments deficits (Çınar, 2018, p. 14-17). A decrease in tourist influx due to terrorist activities may precipitate a decline in tourism revenues, thereby reducing the potential contribution of tourism to the economy.

4. DATA AND MODEL

The data utilized in this study are sourced from reports issued by the Organization for Economic Co-operation and Development (OECD), the World Bank, and the Institute for Economics & Peace, specifically the Global Terrorism Index. The study investigates the impact of the Global Terrorism Index on economic growth across 19 constituent OECD countries over the period 2010-2022. Econometric analysis is conducted on the OECD countries, comprising N=19 units, T=13 time dimensions, and 247 observations. EViews and Stata software packages are employed for the econometric analysis.

In the econometric model, the annual economic growth rate, measured by real GDP, serves as the dependent variable. The independent variables consist of the Global Terrorism Index (the primary independent variable), the gross fixed capital formation rate (indicative of capital), and the labor force participation rate (representing labor). The countries encompassed in the study are Turkey, USA, France, Canada, Austria, England, Belgium, Germany, Italy, Netherlands, Sweden, Spain, Portugal, Norway, Iceland, Switzerland, Denmark, Greece, and Ireland. Detailed descriptions of the variables are provided in Table 1.

Table 1. Descriptive Information on Variables

Variable and Its Abbreviation	Sources of Data Obtained
Real GDP Rate (%) (gro)	OECD Database
Labour Force Participation Rate (%) (lab)	World Bank Database
Global Terrorism Index (ter)	International Institute for Economics & Peace Reports

Note: Data for all variables are obtained on 05.01.2024.

The mathematical representation of the model is given in equation (1.1).

Econometric model: $gro_{it}=\varphi1+ \beta_o gro_{it-1}+ \beta_1 cap_{it}+ \beta_2 lab_{it}+ \beta_3 ter_{it}+ \eta_i+ \lambda_t+ u_{it}$ (1.1)

Given the absence of missing data in the variables, we adopt a balanced panel data analysis approach in this study. Here, 'i' denotes the individual units, and 't' represents the time periods within the models. η_i denotes unobservable individual effects, while λ_t represents unobservable time-specific effects, both of which are treated as fixed. The error term in the model is represented by u_{it}. Within the model, the abbreviations signify the following variables: 'gro' refers to economic growth, 'cap' denotes gross fixed capital accumulation, 'lab' represents labor force participation, and 'ter' stands for the Global Terrorism Index.

5. METHODOLOGY

The primary objective of this study is to investigate the impact of terrorism on economic growth within the member countries of the Organisation for Economic Co-operation and Development (OECD). To achieve this aim, we employ panel data analysis, focusing on an economic growth model framework. Given that the dataset comprises N = 19 units, T = 13 time dimensions, with N>T, we utilize the Generalized Method of Moments (GMM) approach to address potential endogeneity issues, where error terms may be correlated with independent variables. The GMM estimator, a dynamic panel data analysis technique, encompasses two main variants: the Difference GMM and System GMM methods. The former was introduced by Arellano and Bond (1991). However, when instrumental variables are incorporated into the model, biased estimates can arise due to endogeneity concerns (Baltagi, 2005). To mitigate this issue, Arellano and Bover (1995) and Blundell and Bond (1998) developed the System GMM approach, which builds upon the foundation of the Difference GMM method. By utilizing the System GMM approach, the efficiency of the estimator is improved, thereby reducing the likelihood of biased forecasts. In this study, we opt for the System GMM approach due to its advantages in addressing endogeneity problems and achieving more accurate and efficient forecasts (Özhan and Keyifli, 2020, p. 401-402). Following the application of the System GMM approach and conducting relevant tests, we provide both statistical and economic interpretations based on the forecasts generated.

6. EMPRICIAL RESULTS

In econometric analyses, it is customary to test for unit roots in variables to mitigate the risk of spurious regression. However, in this study, we refrain from conducting unit root tests based on insights from Wooldridge (2010). This decision is motivated by the constraint of having larger number of units (N) compared to time periods (T), where T=13. Additionally, Baltagi (2005) underscores the importance of considering cross-sectional dependence analysis in studies with a time dimension spanning 20-30 years. Given that the time dimension of our dataset is T=13, we do not undertake any cross-sectional dependence analysis. Descriptive statistics of the variables are presented in Table 2.

Table 2. Descriptive Statistics of Variables

Variables	GRO	CAP	LAB	TER
Mean	1.722644	21.48447	60.65710	2.591126
Median	1.105737	21.58030	61.66300	2.550000
Maximum	30.39963	54.30437	77.99200	7.519000
Minimum	-16.51953	10.68721	48.13000	0.000000
Std. Dev.	5.463350	4.772680	6.293515	1.869057
Skewness	0.617178	1.509641	0.071160	0.240598
Kurtosis	5.365357	12.60544	3.143740	2.029201
Jarque-Bera	73.26169	1043.375	0.421097	12.08242
Sum	425.4930	5306.664	14982.30	640.0080
Sum Sq. Dev.	7342.656	5603.505	9743.649	859.3704
Observations	247	247	247	247

t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In addition to classical panel data models, it is advisable to employ Dynamic Panel Data Analysis methods when the time dimension is shorter than the cross-sectional dimension (N>T). Therefore, we utilize the 2-Stage System GMM method for econometric analysis. The empirical results are presented in Table 3.

Table 3. 2-Stage Sytem GMM Results

	Coefficient	Standard Error	z	P > lzl	(95% Confidence Interval)	
gro						
L1.	0.6985	0.0713	9.79	0.000***	0.5587	0.8383
Ter	-0.1940	0.0966	-2.01	0.045**	-0.3834	-0.0046
Cap	0.3420	0.0215	-15.87	0.000***	-0.3842	-0.2997
Lab	0.0872	0.0478	1.82	0.068*	-0.0065	0.1809
_const	3.1436	3.1314	1.00	0.315	-2.9938	9.2811

Instrumental Variable Number		18	
AR(1) Aellano- Bond Test	z = -2.57		Pr > z = 0.010***
AR(2) Arellano- Bond Test	z = -1.22		Pr > z = 0.222
Hansen Test	Chi2 (13) = 13.04		Prob > chi2 = 0.445
Wald Test	Chi2 (4) = 40324.54		Prob > Chi2 = 0.000***

Note: *** denotes 1%, ** denotes 5% and * denotes 10% significance level.

Upon analysis of the findings presented in Table 3, it is observed that the test statistics satisfy the necessary conditions for the System GMM method. In order for the instrumental variables identified in the model to be valid, it is essential for first-order autocorrelation to be present while second-order autocorrelation should be absent. Accordingly, the null hypothesis "H_0 = There is no first-order autocorrelation" is rejected at the 1% significance level based on the AR(1) statistic, thereby accepting the alternative hypothesis "H_1 = There is first-order autocorrelation." Conversely, the null hypothesis "H_0 = There is no second-order autocorrelation" cannot be rejected at the 5% significance level

according to the AR(2) statistic. In econometric studies, the Sargan test for the 1-stage System GMM and the Hansen test for the 2-stage System GMM are commonly interpreted. Upon analyzing the Hansen test, the probability value of 0.445 indicates that the null hypothesis "H0 = Instrumental variables are valid" is accepted at the 5% significance level. This implies the absence of an endogeneity problem in the model and confirms that the instrumental variables are exogenous. Furthermore, the Wald test result reveals that the null hypothesis "H_0 = The model as a whole is not significant" is rejected, and the alternative hypothesis "H_1 = The model as a whole is significant" is accepted at the 1% significance level. Additionally, adhering to the general rule for System GMM, the number of instrumental variables should be smaller than the number of units. In this case, with the number of instrumental variables (IV = 18) being smaller than the number of units (N = 19), this criterion is satisfied. Following these procedures, interpretations of the coefficients in the model commence. The coefficients observed in the analysis demonstrate statistical significance, and their signs align with economic expectations. Consistent with prior research, this study confirms that the labor force exerts a positive and significant influence on economic growth. The labor force enhances economic growth by augmenting the stock of human capital through avenues such as education, training, and skill development. Within the OECD's constituent countries, skilled labor engages in more productive and innovative endeavors, thereby driving technological progress—a recognized catalyst for long-term economic growth. Investments in training and enhancing the skills of the labor force in OECD nations spur the development of new technologies, leading to heightened productivity and economic expansion. Moreover, gross fixed capital formation, a recognized explanatory variable for economic growth, manifests a positive impact on economic growth within the estimated model. Conversely, terrorism exhibits a negative effect on economic growth across OECD countries. This finding corroborates the results of previous studies conducted by Abadie and Gardeazabal (2003), Eckstein and Tsiddon (2004), and Crain and Crain (2006). Terrorism disrupts the optimal allocation of labor and capital resources within OECD countries, impeding the production of goods and services, investment activities, and trade. Additionally, concerns regarding security gaps stemming from terrorist incidents may dissuade investors from allocating resources to affected regions or prompt them to withdraw their investments entirely due to the absence of a stable environment. Consequently, the investment and cooperation climate deteriorate, leading to reductions in trade and investments and a deterioration in the structure of capital flows. This adverse environment results in business losses and challenges in generating employment opportunities. Furthermore, tourists may opt out of visiting regions susceptible to terrorist incidents to mitigate potential risks, resulting in significant revenue declines for businesses in the tourism sector. Concurrently, efforts to combat terrorism lead to budget deficits as the state reallocates resources, initially intended for productive sectors, towards security measures aimed at preventing terrorist attacks. Consequently, terrorism adversely impacts economic growth by instigating concerns about security vulnerabilities, reducing investments, negatively affecting the tourism sector, generating budget deficits, and exacerbating unemployment levels.

7. CONCLUSION

The phenomenon of terrorism poses a significant challenge for all nations, having evolved into an international concern that directly or indirectly affects countries worldwide. Addressing terrorism requires collaborative efforts among nations to devise effective solutions. As an international problem, terrorism influences countries' political, foreign policy, and economic decisions, necessitating a global approach for resolution. While extensive research exists on the impact of terrorism on economic growth across various country groupings, there remains a gap in understanding its effects specifically within the constituent countries of the OECD. This study seeks to fill this gap by examining the complex relationship between terrorism and the economy in OECD countries from 2010 to 2022. Employing a Dynamic Panel Data Analysis with the 2-stage System GMM method, we aim to assess the international impact of terrorism on economic growth by incorporating the terrorism variable into the Cobb-Douglas production function. Econometric analysis reveals that the determinants of economic growth—such as capital and labor factors—positively influence growth. Conversely, terrorist activities exert a detrimental effect on the economic growth of countries globally. Specifically, a one-unit increase in capital increases economic growth by 0.34 units, while a one-unit increase in labor increases economic growth by 0.08 units. However, a one-unit increase in the terrorism index decreases economic growth by 0.19 units. These findings align with prior studies conducted by Abadie and Gardeazabal (2003), Eckstein and Tsiddon (2004), and Crain and Crain (2006). The complexity of terrorist activities necessitates international cooperation to mitigate their economic and other negative effects. Collaborations should extend beyond economic factors to encompass intelligence sharing, anti-terrorism legislation updates, border control enhancements, and efforts to curtail terrorist organizations' access to financial resources. Through enhanced international cooperation and coordination, sustainable and comprehensive policies can be devised to combat terrorism effectively. However, this study faces limitations. Initially planned as a comparative analysis between

Middle Eastern countries and OECD member states, the focus shifted solely to OECD countries due to potential data objectivity concerns in collecting terrorism data for Middle Eastern nations. Additionally, the availability of terrorism data spanning only 13 years for the specific country group restricts the study's scope and alternative econometric methodologies.

Statement of Research and Publication Ethics

In all processes of the article, the principles of research and publication ethics of the Manisa Celal Bayar Üniversitesi Journal of Social Sciences were followed.

Contribution Rates of Authors to the Article

The entire article was written by the authors.

Declaration of Interest

The author has no conflict of interest with any person or organization.

REFERENCES

Abadie, A., Gardeazabal, J. (2003). The economic cost of conflict: A case study of the Basque Country. *American Economic Review,* 93(1), 113-32.

Ağırman, E. , Özcan, M., Yılmaz, Ö. (2014). Terörizmin finansal piyasalara etkisi: Ampirik bir çalışma. *BDDK Bankacılık ve Finansal Piyasalar Dergisi,* 8((2) , 99-117. Retrieved from https://dergipark.org.tr/en/pub/bddkdergisi/issue/57344/812567.

Alp, İ. A. (2013). Terörün ekonomik etkileri, *Uluslararası Güvenlik ve Terörizm Dergisi,* 4(1).

Alpağut, S. (2021). Terör, ekonomik büyüme ve genç işsizlik arasındaki ilişki: Panel VAR analizi. Atatürk Üniversitesi İktisadi ve İdari Bilimler *Fakültesi Dergisi,* ISSN 1300-4646 / e-ISSN 2147-7582.

Arellano, M., Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies,* 58(2), pp. 277-297.

Arellano, M., Bover, O. (1995). Another look at the instrumental variable estimation of error components models. *Journal of Econometrics,* 68(1), pp. 29-51.

Baltagi, B., H. (2005). Econometric Analysis of Panel Data, Third Edition, John Wiley & Sons Inc England.

Bayar, Y. (2020). BRICS ülkeleri ile Türkiye'de terörizmin ekonomik belirleyicileri: Bir panel nedensellik analizi. *Türk İdare Dergisi,* 91(489).

Blomberg, S. B., Hess, G. D., Orphanides, A. (2004). The macroeconomic consequences of terrorism. *Journal of Monetary Economics,* Vol. 51 (5).

Bayar, Y., Gavriletea, M. D. (2018). Peace, terrorism and economic growth in Middle East and North African countries. *Quality & Quantity,* 52(5), 2373- 2392.

Bergesen, A., Han, Y. (2005). New directions for terrorism research. *International Journal of Comparative Sociology,* 46(1), 133-151.

Bloomberg, S. B. Hessa, Gregory, D. Weerapana. (2004). Economic conditions and terrorism. *Europen Journal Of Political Economy*, 20, 463-478.

Blundell, R., Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics,* 87, pp. 115-143.

Caşın, Mesut Hakkı. (2008). Uluslararası Terörizm, Ankara: Nobel Yayınları.

Crain, N. V., Crain, W. M. (2006). Terrorized economies. *Public Choice,* 128(1), 317-349.

Choi, S., W. (2015). Economic growth and terrorism: Domestic. international, and suicide, Oxford Economic Papers, 67 (4): 157-180.

Çınar, M. (2017). The effects of terrorism on economic growth: Panel Data Approach. *Journal of Economics and Business,* 35(1), 97-121.

Çınar, S. (2018). Turizm Sektörünün Ekonomik Büyümeye Etkisi: Türkiye Örneği, Yüksek Lisans Tezi, İzmir.

Eckstein, Z., Tsiddon, D. (2004). Macroeconomic consequences of terror: Theory and the case of Israel. *Journal of Monetary Economics*, 51(5), 971-1002.

Gökçe, C., Kaya, A. (2021). Terörün ekonomik büyüme üzerindeki etkisi: BRICST ülkeleri örneği. *Journal of History School*, 54, 3708-3723.

Greenbaum, R. T., Dugan, L., LaFree, G. (2007). The impact of terrorism on Italian employment and business activity. *Urban Studies*, 44(5-6), 1093- 1108.

Gaibulloev, K., Sandler, T. (2008). Growth consequences of terrorism in Western Europe. *Kyklos.* 61(3), 411-424.

Gries, T., Tim, K., Daniel, M. (2011). Causal linkages between domestic terrorism and economic growth. Defence and *Peace Economics*, 22 (5): 493-508.

Has, B., Çınar, S. (2022). Türkiye'de Askeri Harcamalar ve Ekonomik Büyüme: Eşbütünleşme ve Nedensellik Analizi. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi (ASEAD)Eurasian Journal of Researches in Social and Economics (EJRSE), 9(2), 256-270.* ISSN:2148-9963

Has B., Çınar, S. (2022). Türkiye'de İmalat Sanayi ve Ekonomik Büyüme İlişkisi. *Bucak İşletme Fakültesi Dergisi,* 5(1). 7-22.

Hunter, L. Y. (2021). Terrorism, regime type, and defense spending: A crossnational analysis. Democracy and Security, 1-33.

Kaya, S. (2005). Interpol, europol ve uluslararası terörizm. *Güvenlik Stratejileri Dergisi,* 1(2), 31-51.

Kılıç, Z., (2007). Küresellesme İle İvme Kazanan Uluslar arası Terörizm ve Buna Karşı Alınan Tedbirler. Yayınlanmamış Yüksek Lisans Tezi. Süleyman Demirel Üniversitesi, Sosyal Bilimler Enstitüsü, Isparta.

Liapina, L. (2019). Terörizmin Ekonomik Büyüme Üzerine Etkisi: Türkiye Örneği. Yayınlanmamış Yüksek Lisans Tezi. Sakarya Üniversitesi.

Mannik, E. (2009). Terrorism: Its past, present and future prospects. Saumet, A. (Der.) Religion and Politics in Multicultural Europe: Perspectives and Challenges: İçinde 151-171. Tartu: Tartu University Press.

Meierrieks, D., Thomas, O. (2012). Economic Performance and Terrorist Activity in Latin America, Defence and Peace Economics, 23 (5): 447-470.

Şimsek, M. (2016). Terörizm: Kavramsal bir çalışma. *Akademik Bakış Dergisi,* Sayı:54, 319-335.

Şit, M., Karadağ, H. (2019). Ortadoğu'daki terörün ekonomik büyüme üzerindeki etkileri: Panel veri analizi. Itobiad: *Journal of the Human & Social Science Researches,* 8(2), 1313-1329.

Then, K. S., Loosemore, M. (2006). Terrorism prevantions, prepordness and response in buılt facilities. *Facilities,* Vol: 24(5/6) Pp:157176.

Topal, A. H.,(2004). Uluslararası Hukukta Devlet DestekliTerörizme Karşı Kuvvet Kullanma. Yayınlanmamış Doktara Tezi. Ankara Üniversitesi, Sosyal Bilimler Enstitüsü.

Türkiye Barolar Birliği. (2006). Türkiye ve Terörizm. Ankara: Türkiye Barolar Birliği Yayınları.

Özhan, M., Keyifli, N. (2020). Vergi gelirleri, kentleşme ve demokrasi: G20 ülkeleri üzerine ekonometrik bir çalışma. *Ekev Akademi Dergisi,* 84, 391-408.