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**DEFENCE EXPENDITURE AND FINANCIAL RESOURCES OF  
DEFENCE EXPENDITURE IN TURKEY: A COMPARATIVE  
CONCEPTUAL ANALYSIS\***

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### **ABSTRACT**

*Defence expenditure has an important role for a country's economy and has a greater impact on the economies of underdeveloped and developing countries. This article was prepared as a conceptual study for the purpose of answering the long-standing discussion about the share of Turkey's financial sources of defence expenditure in Turkey. In this context; basic concepts, factors affecting defence expenditures, process of determining defence budget, financial sources for defence expenditures were searched and Turkey's defence budget was compared with that of some selected other countries. The data used for comparison, were compiled from Stockholm International Peace Research Institute (SIPRI). It has been found that Turkey's defence expenditure out of its GDP plummeted after 2000, but this trend reversed and the ratio started to increase after 2015 which reached to 2.7% of in 2019. Turkey ranked the 15<sup>th</sup> with a defence budget of 20.4 billion dollars among the list of countries with the most defence budgets in 2019. Also, when Turkey's defense budget is compared with its neighbors as of 2019, it is viewed to be at an average value. Moreover, although there are areas to be improved, it is seen that there is a systematic application related to the determining, planning, implementing and checking of defence expenditure and reasonable defence expenditure is defined according to this systematic in Turkey in today's conditions. It is considered that it would be beneficial to conduct more in-depth studies on this subject in the future.*

**Keywords:** *Defence Industry, Financial Resources of Defence Expenditure, Military Spending, SIPRI, Turkey.*

**SAVUNMA HARCAMALARI VE TÜRKİYE'DE SAVUNMA  
HARCAMALARININ FİNANSMAN KAYNAKLARI:  
KARŞILAŞTIRMALI KAVRAMSAL BİR ANALİZ**

**ÖZ**

*Savunma harcamaları, bir ülkenin ekonomisinde önemli bir yere sahiptir ve özellikle az gelişmiş ve gelişmekte olan bir ülkenin ekonomisine etkisi büyüktür. Bu makale, uzun yıllardır süregelen Türkiye'nin savunma harcamalarına ayırdığı bütçe ilişkin tartışmaya cevap bulmak ve söz konusu bütçe için yararlanılan finansman kaynaklarını tespit etmek amacıyla kavramsal bir çalışma olarak hazırlanmıştır. Bu kapsamda temel kavramlar, savunma harcamalarını etkileyen faktörler, savunma bütçesinin belirlenmesi süreci ve savunma harcamaları finansman kaynakları araştırılmış, seçilmiş diğer ülkeler ile Türkiye'nin savunma bütçesi karşılaştırılmıştır. Bu karşılaştırmada Stockholm Uluslararası Barış Araştırma Enstitüsü'nün (SIPRI) verilerinden faydalanılmıştır. Türkiye'nin savunma harcamalarının 2000'li yıllarla birlikte düşüş eğiliminde olduğu, bu eğilimin özellikle 2015 sonrasında yükselişe geçtiği ve 2019'da Türkiye'nin GSYH'sının yaklaşık % 2,7'sinin savunma harcamasına ayrıldığı tespit edilmiştir. 2019 yılında Türkiye en fazla savunma bütçesi ayıran ülkeler arasında 20,4 milyar Dolar ile 15. sırada yer almıştır. Bununla birlikte, 2019 yılı itibariyle Türkiye'nin savunma bütçesinin komşularıyla karşılaştırıldığında ortalama bir değerde olduğu görülmektedir. Ayrıca, iyileştirilmesi gereken alanlar olmakla birlikte, Türkiye'de savunma harcamalarının belirlenmesi, planlanması, uygulanması ve kontrolüne ilişkin sistematik bir uygulamanın olduğu ve günümüz şartlarında makul savunma harcamalarının bu sistematığe göre tanımlandığı görülmektedir. Bu konuda gelecekte daha derinlemesine çalışmalar yapılmasının faydalı olacağı değerlendirilmektedir.*

**Anahtar Kelimeler:** *Savunma Sanayii, Savunma Harcamalarının Finansman Kaynakları, Askeri Harcamalar, SIPRI, Türkiye.*

## **1. INTRODUCTION**

Defence expenditure is an important component of budget expenses and it appears to maintain the sovereignty and the existence of a country. It is apparently a direct function of threats to the integrity and independence of that country. Depending on the characteristics of a nation, one can claim that the amount of the expenditures might vary significantly.

Basar and Kunu (2012, p.12) puts it forward that as one of the pure public goods, sustaining defence services is the responsibility of governments and the financing of defence expenditure is largely funded by the state budget in all countries. Even if the principles of globalization and solidarity are gaining importance nowadays, historical experiences and current events force countries to allocate sufficient budgets for their defence.

Turkey, which is one of the North Atlantic Treaty Organization (NATO) Members, is also investing hugely on the defence industries recently, as it is constantly exposed to internal and external threats due to its geopolitical and strategic importance. For this reason, an important share is allocated to the defence expenditures in Turkey from the state budget and from the incomes of the organizations that was formed with the aim of strengthening the armed forces. We see that these shares follow rather a fluctuating course due to seasonal effects in the recent years.

Researches on measuring defence spending have been object of study of many academicians and practitioners, in particular starting from 1980s. In the last four decades, plenty of valuable and crucial contributions were made by political scientists and economists who enriched datasets and renovated methodologies mainly for calculating military expenditures by different countries and investigating the relations between defence expenditures and economic growth. Although various researches have been made in relation to economic and statistical relations so far, some gaps in the literature still remain, notably concerning the conceptual framework and methods of analysis that warrant further attention.

A seminal work on military expenditure is by Brzoska (1995). In the paper, the author notes that military data is difficult to define and no credible data are available for some countries. Brzoska (1995, p.1) also states that data series on military expenditures and arms transfers must be used with caution

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as the publishing institutions have only limited resources to deal with the numerous conceptual and practical problems.

In another work of interest, Lifshitz (2003, p.68) examines the economic context of the military expenditures. He underlines that defence expenditure measures are required for analyzing the macroeconomic and industrial implications of defence, and particularly for calculating the opportunity cost and economic burden of the defence.

A study by Sandler and Hartley (1995, p.1) specifies that the defence expenditures vary among nations and provides examples to this. They note that defence sector can have significant allocative influences in nations, especially when research and development are included. According to them, in time of crisis, mobilization of forces has tremendous present and future economic ramifications on a nation.

Within the framework of economic context of expenditures, it is possible to assert that the defence spending is heavily debated in Turkey recently as it is the case for almost all countries. The studies, which concentrate on the sources of Turkey's defence expenditures and compare Turkey's defence budget with other countries' budgets, are rather limited in literature.

In this respect, this study aims to analyze financial resources of Turkish defence spending in detail, and it focuses on whether Turkey allocates a huge amount of its budget to the defence. The structure of the paper is as follows: Second section examines the basics of the defence industry in general, while financial sources of Turkish defence industry is investigated in the third part. The comparisons of Turkey's defence budget with other selected countries are unclosed in the fourth part and finally, the evaluations and conclusions are conveyed in the last section.

## **2. DEFENCE INDUSTRY**

It would be beneficial to introduce the basics of the defence industry first, which has its own characteristics, before examining the basics and financial resources of defence expenditures in Turkey.

## **2.1. Definition of Defence Industry**

According to the official website of the Ministry of Defence of Turkey, defence industry can be defined as the plants that produce war weapons, vehicles, equipment, ammunitions, spare parts with their important inputs and their related goods and services.

## **2.2. Features of Defence Industry**

Ziylan et al. (1998, p. 15) and Uysalkan (2010, p. 25) indicate that the defence industry has different properties in terms of market, product, and military precision. In terms of market, it is possible to sort the properties as follows:

- The only customer in the domestic market is the government.
- The foreign markets are highly dependent on foreign political influence.
- Production is regulated by political demand and desire according to need.
- High performance and quality have primary and cost has secondary importance.
- The high technologies have to be used extensively.
- It requires large investments spread over many years and therefore very good financial management.
- The defence industry is operated under the auspices and protection of the government and organizations operating in this sector are excluded from the scope of international free trade agreements.
- It is conducted as joint military production programs with the effect of multinational defence agreements or international bilateral agreements.
- It is necessary that the production process should not be interrupted by maintaining the technological sufficiency for the development and management of critical defence systems.
- High-volume manufacturing should be able to achieve during the crisis and war periods.

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- It requires a highly qualified workforce in the fields such as Research and Development (R&D), production, quality control, project management and customer relations because of the use of advanced technologies.

In terms of defence products, it can be stated that the most vital properties of the defence industry can be sorted as being fully public property, having complex structure, needing high technology, demanding high cost, having long useful life, requiring high quality, working in severe environmental conditions, and being able to improve. From the point of view of the military precision, on the other hand; Ziylan et al. (1998, p. 41) and Uysalkan (2010, p. 18) acknowledge that defence industry has the prominent properties such as security, safety, reliability, flexibility, maintainability and interoperability.

### **2.3. Importance of National Defence Industry**

A strong defence industry is a prerequisite for being an independent country. Failure to make good defence will negatively affect the efforts of the country to protect its national rights and interests, as Nemli (2009, p. 9) mentions that is why the services related to defence are firstly organized as a demonstration of the country's presence and power. Ziylan et al. (1998, p. 17) state that every country should have its own national defence industry in order to provide reliable, safe and confidential systems to the units related to defence in that country. In addition, the 'national' defence industry is required:

- To ensure that funds allocated for defence industry expenditures are kept within the country,
- To maintain export import balance,
- To be a locomotive for the scientific and technological developments in the country,
- To prevent the difficulty of supplying critical weapons, vehicles, equipment, ammunitions and spare parts, especially during periods of crisis and tension.

As mentioned above, the defence industry is a significant component of Turkish sovereignty and solidarity as Turkey attaches great importance to its

national defence. In terms of fighting forces, for instance, Turkish Armed Forces (TAF) ranks the 8<sup>th</sup> largest standing military force in the world while it is currently the 2<sup>th</sup> largest standing military force among NATO countries, as noted by Ziylan et al. (1998, p. 54). The realization of TAF modernization needs by the national defence industry has been ruled as a legal priority by additional article no. 12 of Law No. 1325 to be performed by ASFAT A.S. in relation to the duties and organization of the Ministry of National Defence, as noted by decree Law No. 696 on November 20, 2017, and decree law No.7 establishing Presidency of Defence Industries (PDI), whose name was Undersecretariat of National Defence before the presidential system. In this context, according to Haberturk (2015)'s news piece, while the needs of TAF were met at the level of 20% in 1980s by Turkish Defence Industry, this rate amounted to 54% in 2015 and it is almost increasing year by year.

#### **2.4. Actors of Turkish Defence Industry**

The main actors of the Turkish defence industry can be listed as follows: Presidency Defence Industry Executive Committee, Ministry of National Defence (MND), (and abrogated Turkish Armed Forces General Staff (TAFGS)), PDI, and defence industry organizations/firms. According to the Presidential Decree No. 7, Presidency Defence Industry Executive Committee is accountable for ensuring national security and preparing the armed forces for national defence. As per the Presidential Decree No. 4 dated July 15, 2018, the Chief of Staff of TAF was attached to the Ministry of Defence and has been mandated to determine the set of principles, priorities and core programs pertaining to the needs during the TAF's preparations for combat. According to the Presidential Decree No. 1 dated July 10, 2018, MND is responsible for the procurement of weapons, tools, materials and logistic necessities and for the war industry services. According to Presidential Decree No.7, which was published at the Official Gazette on July 15, 2018, PDI is responsible for applying the decisions of the Defence Industry Executive Committee, modernizing the TAF and developing of a civilian infrastructure to support the armed forces. Finally, the defence industry organizations/firms in Turkey undertake an important task to provide that the needs of the TAF are met with the latest technologies and national opportunities. In order to carry out more detailed



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and accurate analytical studies for Turkey, we consider that it would be beneficial to analyze the main financial resources comprising Turkey's defence budget within the framework of the existing literature. For this reason, Turkey's financial sources of defence expenditure will be analyzed in the next section.

### **3. FINANCIAL SOURCES OF DEFENCE EXPENDITURE IN TURKEY**

• During the processes of implementing national defence instruments, financing is needed for organizations/businesses in order to conduct the activities, realize the projects, etc. Turk (2007, p. 26) remarks that possible financial resources of defence expenditures can be listed as follows:

- Resources allocated from the MND budget,
- Defence Industry Support Fund (DISF) resources,
- Turkish Armed Forces Foundation (TAFF) resources,
- The General Command of the Gendarmerie budget,
- Coast Guard Command budget,
- Government / Company loans,
- Foreign Military Sales (FMS),
- MND's revenues based on special laws.

Among above mentioned financial resources, Akyesilmen (2006, p.14) specifies that the most important part of the resource reserved for defence is the MND budget. As per the data from the Ministry of Finance, the share of MND, which was 6.1% of budget in 2008, dropped to 5.6% of budget in 2009. In time, the rate decreased further, and it became 4.2% in 2014. The share of MND in the total budget occurred 4.69% in 2015 and 4.8% in 2016. According to the central administration budget for 2020, the total amount allocated for MSD is 53.9 billion Turkish Lira, which was equivalent to 4.92% of the total budget. This clearly demonstrates that there has been an increasing trend since 2015.

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While unveiling the details of spending on Turkish military-related activities is one of the purposes of this study, one has to bear in mind that estimating how much Turkey spends on its military requires a detailed study to trace its sources. Although some details of Turkey's military expenditure is available online—such as the budgets of the MND—access to information about other elements is limited or, in some cases, impossible, as indicated by Yenturk (2014, p. 1).

Apart from the general budget, with the aim of establishing a continuous and steady supply of the budget that is necessary for providing the modernization of the TAF and establishing the modern defence industry in Turkey, in accordance with Article 12 of Law No. 3238, DISF is operating under the supervision of the Central Bank of the Republic of Turkey and under the responsibility of the Presidency of Defence Industries.

Land, Naval and Air Force Support Foundations, that were established different times before, were united as TAFF on 17 June 1987, with the Law No. 3388. The foundation started its operations, with the aim of enhancing the warfare of capability of TAF through national defence industry, establishing new defence industry areas and procuring warfare armament by providing the financial and spiritual support of Citizens, on 26 September 1987. As of 2020, the TAFF governs its 14 direct and indirect companies (six affiliate companies, six subsidiaries, and two indirect affiliate companies) within the concept of “Group of Companies”, according to Turk Silahlı Kuvvetleri Güçlendirme Vakfı's website.

With the decree-law No. 668, Gendarmerie General Command and the Coast Guard Command bounded to the Ministry of Interior on July 25, 2016.

Government/company loans are the loans by foreign countries and companies. Koseoglu (2010, p. 75) states that these kind of loans are provided either by foreign companies that supply the project or by international organizations on behalf of the government; its repayments are made by the government, or its financial guarantee is provided by Treasury.

FMS program is a form of security assistance authorized by the Arms Export Control Act (AECA), and an important of U.S. foreign policy. Under Section 3 of the AECA, the U.S. may sell defence articles and services to

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friendly foreign countries and international organizations. Countries in this program may obtain defence articles and services by paying with their own national funds or with U.S. Government funds. In certain cases, U.S. may give defence articles and services on a grant basis, as indicated by the website of Defence Security Cooperation Agency's.

The MSD has also a number of revenues determined by special laws, as well. Some of these can be expressed as revenues from "Military Service in Foreign Exchange" (under Laws No. 1111 and 3802) and sales of goods, services, and properties (under Laws No. 189 and 3212).

#### **4. COMPARISON OF TURKEY'S DEFENCE BUDGET WITH OTHER COUNTRIES**

After explaining the financial sources of defence expenditures in brief, in this section, we reveal the size of the defence market in Turkey and draw a comparison between the Turkey's defence budget with other selected countries.

##### **4.1. Defining the Defence Budget**

According to Hartmann and Wendzel (1990, p.31), defence planning, which is updated according to ongoing risk assessments, is a process that is affected by many factors such as threat perception, economy, resources, international partnerships, neighborhood relations, geographical position, political situation, technological power, population, cultural and traditional values, and attitudes of leaders, as specified by Berk (2015, p.8). The defence budget is determined in accordance with the mentioned planning.

Although there are many key factors, the most significant factor determining the amount of spending is the threat. Governments decide on the amount of defence expenditures in accordance with the existence of internal and external threats and the severity of threat. On the other hand, different causal drivers like strategic sources, political and economic relations, geopolitics and socio-economic structures should be considered when analyzing the threat.

In addition to this, mandatory defence spending levels, weapons control agreements and side income sources can play an active role in determining

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the defence budget, according to the website of Geneva Centre for the Democratic Control of Armed Forces (2002). Here, it would be beneficial to open up especially the notion of *mandatory defence spending level*. As noted in the last section, some countries determine defence expenditure as a percentage of the current defence expenditure divided by GDP or this rate is calculated taking into account of the conditions of the alliance. For instance, all new NATO members are committed to spend 2% of GDP on defence.

Almost for every country, a national budget cycle determining the defence spending is effectuated annually and consists of four main stages namely budget preparation, budget approval, budget execution, and budget evaluation. Organization for Security and Co-operation in Europe (OSCE) has incorporated the following principle to 'Code of Conduct on Politico-Military Aspects of Security' document, as follows: Each participating State will provide for its legislative approval of defence expenditure. Each participating State will, with due regard to national security requirements, exercise restraint in its military expenditures and provide for transparency and public access to information related to the armed forces, as noted by Geneva Centre for the Democratic Control of Armed Forces (2002). Similarly, any expenditure made within the framework of the MND budget in Turkey is subject to the financial controls and supervisions of the government, Ministry of Treasury and Finance, Court of Accounts, and the MND.

The basis of Turkey's national defence, security strategies and policies is National Security Policy Document (NSPD) that is updated by National Security Executive Committee in every five years. In the direction of NSPD, Turkey's National Military Strategy (TNMS) document is being prepared. Preparing by taking into consideration the political situation, risk assessment and the policies regarding the use of the armed forces, Turkish national defence planning is a process that involves the works carried out in four successive phases in two years period: In the first phase, NMS is prepared. In the second phase, the Planning and Programming Directive (PPD) is arranged and published. In the third phase, the Strategic Target Plan (STP) is published. In the fourth phase, Ten-Year Procurement Plan and Program Budget Proposal is prepared and announced. According to

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Mevlutoglu (2016, p. 17) and Muslum et al. (2010, p. 107), the implementation of the plan follows these four phases.

In the next part of our study, we focus on the defence expenditures which simply cause defence budgets to be generated, and the roles of the actors during this process are investigated. During the process of the realization of national defence, financial resources and budgets are required for the execution of activities, projects etc.

#### **4.2. Definition of Defence Expenditure**

Defence budgets are allocated to meet the defence expenditures. Giray (2004, p.184) underlines that the definitions of defence expenditure vary as there are different explanations by NATO, International Monetary Fund (IMF), United Nations (UN) and SIPRI, however in general, it can be stated that defence expenditure is the share that is allocated from country's national income in order to ensure the internal and external safety of a country, as noted by Onder (2009, p. 2661).

Considering that the data by SIPRI is up to date and well-respected, SIPRI's data have been utilized for the sake of the analysis. Following SIPRI's definition, defence expenditure includes all current and capital expenditure on:

- The armed forces, including peace keeping forces
- Defence ministries and other government agencies engaged in defence projects
- Paramilitary forces when judged to be trained, equipped and available for military operations
- Military space activities

Such expenditures should include personnel, operations and maintenance, procurement, military research and development, military construction, military aid and exclude military related expenditures such as civil defence and current expenditure for previous military activities (veteran benefits, demobilization, conversion of arms production facilities, destruction of weapons), as per SIPRI's official website.

### **4.3. Reasons and Factors of Defence Expenditure**

One can claim that the last resort to the solution of the problems in international relations is the "military force". Military force is apparently an element of national power, and it has to be continuously improved. The governments, by no means, can give up supporting and providing this force. According to the traditional realist view, the possibility that a war can happen at any moment forces governments to be constantly alert and follow real politics in order to protect their national interests. Gurcan (2011, p.129) references the following: "Always being ready for war (si vis pacem para bellum)" is the only formula of peace and keeping order in the world.

From the early ages to the present day, people developed various weapons and defence methods to protect their lives, values and interests from danger; sometimes they defended themselves with these weapons and on occasions they attacked for some benefits. This has been valid nearly for all countries throughout the history. For centuries, international conflicts of interest have been present and weapons have been resorted as a last expedient to reach a solution as the military forces are directly engaged in this multilateral dilemma.

The armed forces that have direct and indirect effects in respect of external security have important repercussions in respect of internal security as well. Kucuksahin (2006, p. 12) mentions that in order to ensure the public peace and the government survival within the political boundaries of a country, governments take precautions via private security companies, its police, intelligence units and the armed forces, in addition to the social, political, economic and environmental measures.

The most important reason for defence spending is obviously a "threat". Countries obviously need to protect themselves against threats. Governments determine the amount of defence expenditures according to the existence and severity of the internal and external threats, while the strategy of the country is another crucial factor affecting military expenditures as the country's defence and/or attack strategies direct country's defence expenditures.

Defence expenditure, which impresses defence and attack, has deterrent effect at the same time as the strategic, political and economic effects of

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weapon systems go far beyond military influences as their range, coverage, size, and other attributes increase.

Because of the abovementioned reasons, governments have to allocate appropriate budgets for their defence expenditures. In the next section, Turkey's defence budget and expenditures are examined comparatively with other selected countries.

#### **4.4. Defence Expenditure in the World**

The demise of the Warsaw Pact in the late 20th century, the end of the Cold War plus the collapse of the Soviet Union created a new political and security understanding in the world. This has caused to considerations for the establishment of a lasting peaceful atmosphere in the world. However, after a while, developing technology, migrations, ethnic nationalism, money and population movements created by globalization, and increased terrorism activities have changed the world into a more uncertain and complicated place to live. Defence expenditures and budget allocated for defence in the world, which plummeted between 1987 and 1998, started to increase both globally and regionally since 1998, as can be seen in Table 1; based on the data compared on a yearly basis.

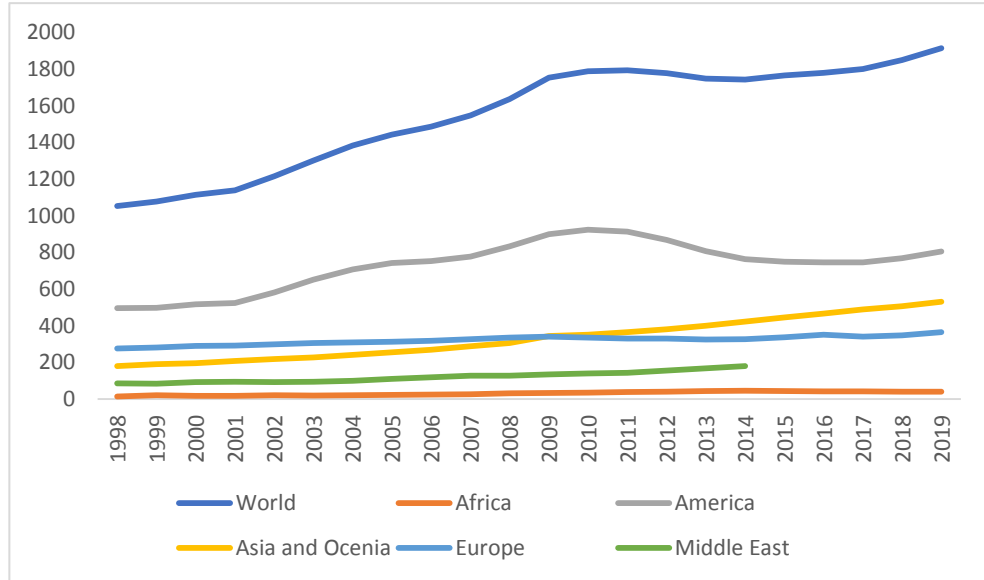
The figures show that defence expenditures are on the rise regularly, both locally and globally. We see that in the last 20 years, defence expenditure has increased by 2.9 times in Africa, by 1.6 times in United States of America, by 2.9 times in Asia and Oceania, by 1.3 times in Europe, and by 1.8 times in the world. In line with this, Dr. Nan Tian who works at SIPRI as a researcher, notes that "the global military spending in 2019 represented 2.2 per cent of the global GDP, which equates to approximately \$249 per person. Global military expenditure was 7.2 per cent higher in 2019 than it was in 2010".

**Table 1.** Regional defence expenditures in the world, 1998-2019  
(billion \$, 2018 prices). (SIPRI database, 2020a).

<b>Year</b>	<b>World</b>	<b>Africa</b>	<b>America</b>	<b>Asia and Oceania</b>	<b>Europe</b>	<b>Middle East</b>
1998	1054	14,4	497	181	276	85,7
1999	1077	21	499	191	281	83,8
2000	1114	18,3	517	196	290	92,6
2001	1139	18,7	525	208	293	95,5
2002	1215	20,9	582	219	300	93
2003	1301	20,1	652	228	306	94,9
2004	1384	22,6	708	242	310	101
2005	1443	23,5	742	255	313	110
2006	1486	25,5	754	270	318	119
2007	1548	26,8	777	288	327	128
2008	1637	31,5	834	306	336	129
2009	1753	33,2	899	344	342	135
2010	1789	35,5	924	352	336	141
2011	1794	39,2	914	366	330	144
2012	1778	40,4	868	381	331	157
2013	1748	45,1	808	400	326	168
2014	1743	46,4	764	423	328	181
2015	1766	44,3	750	446	337	No Certain Data
2016	1779	43,3	747	467	351	No Certain Data
2017	1800	42,5	746	489	342	No Certain Data
2018	1849	41	768	507	348	No Certain Data
2019	1914	41,6	805	531	365	No Certain Data



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**Figure 1.** Regional defence expenditures in the World, Europe, Asia and Africa and America (billion \$, 2018 prices). (Authors’ calculations using SIPRI database, SIPRI, 2020a and SIPRI, 2020b).

**4.5. Comparison of Turkey’s Defence Budget with Other Countries**

For this section of the study, Turkey’s defence budget is compared with countries, whose annual military budget is more than \$10 billion. Table 2 below demonstrates Turkey’s stance among others. It appears Turkey ranks the 10<sup>th</sup> in the mentioned list.

**Table 2.** Defence budgets for countries whose military budget is more than \$10 billion, 2019 (billion \$ and % of GDP). (SIPRI database, 2020a, 2020b).

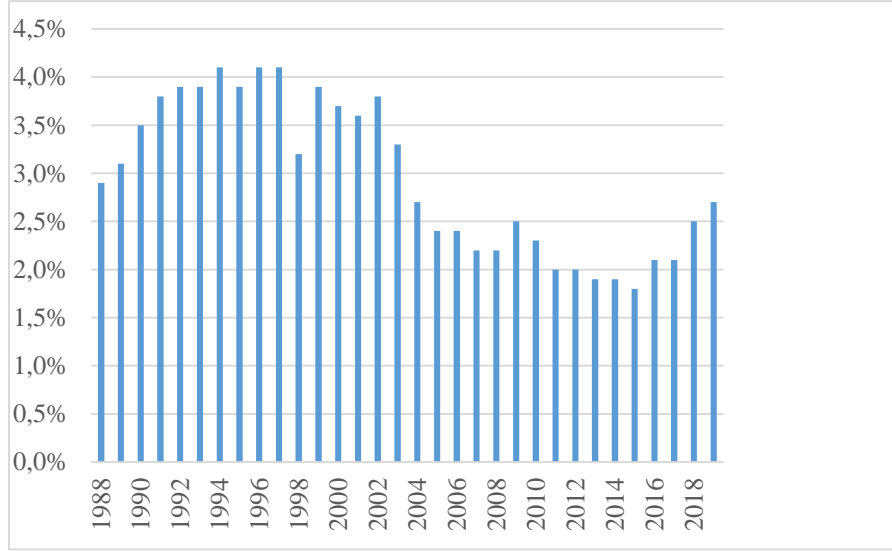
<b>Country</b>	<b>Spending in 2019</b>	<b>Share of GDP, 2019 (%)</b>
Saudi Arabia	\$61.87	8.0%
Algeria	\$10.30	6.0%
Israel	\$20.47	5.3%
Pakistan	\$10.26	4.0%
Russia	\$65.10	3.9%
U.S.A.	\$731.75	3.4%
Singapore	\$11.21	3.2%
Colombia	\$10.08	3.2%
South Korea	\$43.89	2.7%
Turkey	\$20.45	2.7%
India	\$71.13	2.4%
Iran	\$12.62	2.3%
Poland	\$11.90	2.0%
France	\$50.12	1.9%
China	\$261.08	1.9%
Australia	\$25.91	1.9%
Taiwan	\$10.42	1.7%
UK	\$48.65	1.7%
Italy	\$26.79	1.4%

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Canada	\$22.20	1.3%
Netherlands	\$12.06	1.3%
Germany	\$49.28	1.3%
Spain	\$17.18	1.2%
Japan	\$47.61	0.9%

Today, there are major conflicts in the immediate vicinity of Turkey and the problems related to internal security within its borders have been going on for many years. Located in a highly strategic but inconsistent and unstable region, Turkey allocates a significant share of its limited resources to defence expenditures in order to protect its national interests, sustain its existence, and become a strong country in her region, according to Uslu (2007, pp. 115-116). This can be considered as one of the reasons why Turkey continues to allocate more of its resources to defence expenditures, particularly after 2015.

In order to define the burden of defence expenditure on a country's economy and/or the importance of defence for a country, investigating the defence expenditure as a share of GDP is a common method. We see that the defence expenditure is determined as a percentage of the current defence expenditure as a rate of GDP for various countries. According to data obtained from SIPRI 2020b's database, defence expenditure as a share of Turkey's GDP is presented in Figure 2. After 1998, the ratio of defence expenditure to GNP in Turkey seems to be in a decreasing tendency while this trend significantly reversed after 2015. Turkish defence spending as a share of GDP in 2015 was 1.8% but in increased to 2.7% in 2019, reflecting a 50% change in only 5 years.



**Figure 2.** Defence expenditures as a share of Turkey's GDP, 1988-2019 (%). (Authors' calculations using SIPRI database, SIPRI, 2020a and SIPRI, 2020b).

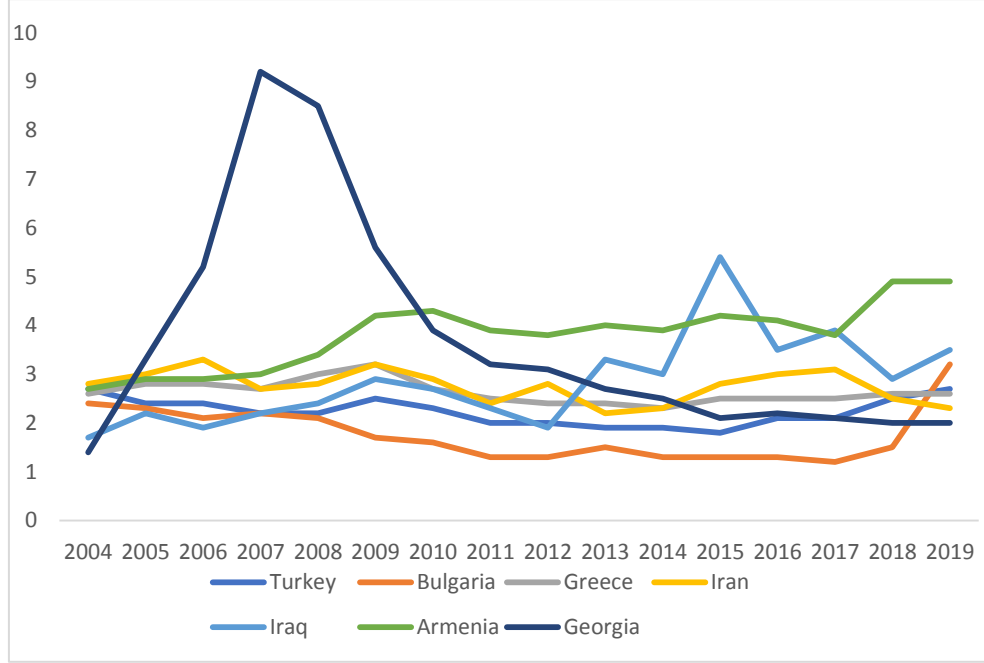
After seeing defence expenditure trends in different parts of the world, we think that it would be useful to examine how these expenditures have occurred in Turkey's neighbors in order to make comparative evaluations. The comparison of defence expenditures, recorded between 2000 and 2019 in Turkey and its neighbors, are presented in Table 3. When the defence expenditures of each country are examined, it seems that the expenditure of every country is not stable on a yearly basis. However, it is recognized that there is a tendency to increase or decrease the spending in general. According to the figures obtained from SIPRI 2020b's database in the last 20 years, we found out that the defence spending rose by 62% and 145% respectively for Turkey and Bulgaria, plummeted by 29% and 55% respectively for Greece and Iran. The defence expenditures were rather less for Armenia and Georgia when compared with other countries. Our analysis shows that the expenditures by Armenia and Georgia increased by 308% and 861%, respectively. It should be noted here that since SIPRI did not

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release certain data for Syria and Iraq during the period under consideration, we excluded these two countries from our analysis.

**Table 3.** Defence expenditures of Turkey and Turkey's neighbors (% of GDP). (SIPRI's 2020b database).

<b>Year</b>	<b>Turkey</b>	<b>Bulgaria</b>	<b>Greece</b>	<b>Iran</b>	<b>Iraq</b>	<b>Armenia</b>	<b>Georgia</b>
2004	2,7	2,4	2,6	2,8	1,7	2,7	1,4
2005	2,4	2,3	2,8	3,0	2,2	2,9	3,3
2006	2,4	2,1	2,8	3,3	1,9	2,9	5,2
2007	2,2	2,2	2,7	2,7	2,2	3,0	9,2
2008	2,2	2,1	3,0	2,8	2,4	3,4	8,5
2009	2,5	1,7	3,2	3,2	2,9	4,2	5,6
2010	2,3	1,6	2,7	2,9	2,7	4,3	3,9
2011	2,0	1,3	2,5	2,4	2,3	3,9	3,2
2012	2,0	1,3	2,4	2,8	1,9	3,8	3,1
2013	1,9	1,5	2,4	2,2	3,3	4,0	2,7
2014	1,9	1,3	2,3	2,3	3,0	3,9	2,5
2015	1,8	1,3	2,5	2,8	5,4	4,2	2,1
2016	2,1	1,3	2,5	3,0	3,5	4,1	2,2
2017	2,1	1,2	2,5	3,1	3,9	3,8	2,1
2018	2,5	1,5	2,6	2,5	2,9	4,9	2,0
2019	2,7	3,2	2,6	2,3	3,5	4,9	2,0



**Figure 3.** Defence expenditures of Turkey and Turkey’s neighbors (% of GDP). (Authors’ calculations using SIPRI database, SIPRI, 2020a and SIPRI, 2020b).

Although Turkey’s defence expenditures out of its GDP have relatively increased in the recent years, it is less than that of Iraq’s, Bulgaria’s and Armenia’s. When we examine the shares of expenditures out of GDPs in 2019 to reveal the burdens of defence spending on the countries' economies, we see that the ratio of defence expenditures to GDP in Turkey recorded as 2.7% in 2019, while the same ratio was 2.6% for Greece in the same time frame. Turkey’s ratio is lower than that of Bulgaria (3.2% in 2019) and higher than Greek Cypriot Administration of Southern Cyprus (1.6%) and Iran (2.3% in 2019). Although Armenia’s ratio was 4.9%, Turkey’s ratio was higher than most of the other neighbors like Georgia (2%). No military expenditure data have been revealed for Syria and the figures related to Iraq are uncertain, according to SIPRI.

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One of the restrictions of comparing Turkey's defence expenditures with its neighbors' is that both the size of the countries and army personnel differ to a large extent from each other. Besides, among these countries, only Turkey and Greece are the members of NATO, which require additional obligations and expenses. Turkey and Greece are also spending a lot for the peacekeeping operations outside of their territories.

## **5. CONCLUSION**

Countries allocate substantial resources to their defence industries and allocate huge defence budgets. Geopolitical situation, strategic interests of the country and especially threat perception make defence expenditures, - which generally have significant shares in the country's budget and affect social welfare negatively- mandatory.

When the ratios of defence expenditures as a share of GDP are analyzed, it is seen that Turkey's defence expenditures are almost at world averages but inclined to increase after 2015 like the averages of Asia and Europe. According to data gathered from SIPRI 2020a and 2020b's database, Turkey ranked the 15th with a defence budget of 20.4 billion dollars among the list of countries with the most defence budgets 2019. Turkey's ratio of defence spending to GDP in 2019 was 2.7%. Also, when Turkey's defense budget is compared with its neighbors as of 2019, it is viewed to be at an average value. Turkey spends more than average of its neighbors quantitatively, but when the GDP ratio is considered, it is seen that it has been less than average in the recent years. Although there are areas to be improved, it is seen that there is a systematic application related to the determining, planning, implementing and checking of defence expenditure and reasonable defence expenditure is defined according to this systematic in Turkey. For future work, countries which have similar economic characteristics to Turkey can be defined and comprehensive comparisons can be made accordingly.

Defence Industry Support Fund (SSDF), which aims to provide continuous and stable resources to investments to be made in weapons production areas, and Turkish Armed Forces Foundation (TSKGV) that aims to provide financial contribution to the TAF with revenues such as financial incomes,

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profit share incomes, donation incomes, rental incomes and fair incomes, are other significant financial resources of defence expenditures in Turkey.

As a result, it is evaluated that it is not possible to claim that the defence budget in Turkey is overblown when internal and external threats, defence expenditures in neighbor countries, deterrence, contribution to regional stability, the alliance conditions and domestic control mechanisms are considered. On the other hand, it is considered usual to make improvements in the processes of forming both the country budget and the defence expenditures and the effectiveness of the domestic control mechanisms.

It is also evaluated that it is not possible to cut down the expenditures of TAF in order to continue both deterrence and contribution to regional stability, when the conjuncture (issues related to Aegean islands, eastern Mediterranean, Cyprus, Egypt, Syria, Iraq, terrorist organizations etc.) is taken into consideration. However variations in Turkish defence expenditures might occur due to threat perception, economy, resources, international partnerships, neighborhood relations, geographical position, political situation, technological power, population, cultural and traditional values, and attitudes of leaders. Conflicts of interest in the world have been going on for many years. As long as conflicts of interest continue, the need for high defence budgets will continue to exist.



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**CONFLICT OF INTEREST STATEMENT**

The authors declare no conflict of interest.

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