

## DVĚ PROCENTA HDP NA OBRANU

### Realistický závazek členských států NATO?

## TWO PERCENT OF GDP FOR DEFENSE

### A Realistic Commitment of NATO Nations?

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#### Abstrakt

Nejprve jsou diskutovány výhody a nevýhody měření vojenských výdajů pomocí poměrového ukazatele jejich podílu na HDP. Následně je analyzován vývoj obranného břemene členských států v uplynulé dekádě v kontextu výdajových závazků v rámci NATO. Nejprve je tato analýza provedena za léta 2009 až 2013 ve vztahu k výdajovému závazku po summitu NATO v Bukurešti. Následně článek analyzuje vývoj podílu vojenských výdajů na HDP v letech 2014 až 2018 ve vztahu k závazku alokovat nejpozději v roce 2025 alespoň 2 % HDP na obranu.

#### Abstract

First, advantages and disadvantages connected with measuring military expenditures as a share of national GDP are being discussed. Subsequently, the article analyzes development of defense burden in NATO nations during the past decade in the context of spending commitments within NATO. First, this analysis covers the years 2009 through 2013 in relation to the spending commitment after the Bucharest NATO Summit. Second, the analysis focuses on the development of defense burden between 2014 and 2018 in relation to the commitment to allocate at least 2% of GDP for defense in 2025 latest.

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**Klíčová slova**

Vojenské výdaje; břemeno obrany; determinant; NATO.

**Keywords**

Military Expenditures; Defense Burden; Determinant; NATO.

## INTRODUCTION

Recent developments in international security environment, e.g. the situation in Ukraine, migration crisis in Europe or lengthy conflicts in Syria or Afghanistan have resulted in refocusing of many countries, incl. member states of the North Atlantic Treaty Organization (NATO), on the issue of national defense and related military expenditures. During the 2014 NATO Summit in Wales, all member states have declared their commitment to achieve their national defense burden at the level of at least 2% of their National Gross Domestic Product (GDP) in 2025 latest. At the same time, NATO nations have committed themselves to allocating at least 20% of their military expenditures to investments.<sup>1</sup> Such a commitment can be understood as one of the determinants of the amount of military expenditures.

Determinants of military expenditures are generally classified as economic, security and political ones. Economic determinants cover different parameters expressing condition of a given economy as well as public finance, e.g. GDP growth, budget balance or inflation. Security determinants consist of characteristics of security environment specific to a given country or region such as the level of threat of terrorism, cross border conflict or ethnic tensions. Political factors include characteristics such as government stability or democratic accountability.<sup>2</sup>

International military spending commitment, voluntarily taken by NATO member states, can be viewed as a political determinant of the amount of resources member states have agreed to spend on defense. Should we perceive rationality in the behavior of the NATO member states leadership, such a spending commitment would be taken first after serious consideration of all relevant determinants of military expenditures, i.e. factors actually as well as expectedly influencing feasibility of the fulfillment of such a commitment under specific conditions of each member country. From this point of view, such a commitment seems to be a determinant superior to all the other determinants of military expenditures.

In addition, when committing themselves to a certain spending level, NATO member countries have generated expectations that the set resources are to be allocated to defense. However, to become such an effective determinant of military expenditures, the commitment of NATO member states has to become reality. When not being fulfilled, it might deteriorate trust among NATO members and aggravate NATO cohesion. On the other hand, when being fulfilled it might contribute to more equal sharing of the defense burden within NATO. The way member states will or will not fulfill their spending commitment certainly will become a part of the ongoing debates within NATO. On one hand, these debates are driven by the US, calling most European member states and Canada to step up their defense spending. On the other hand, these debates, driven mainly by France, call for revision of the strategic targeting of NATO, especially concerning its ties with Russia and relations to one of its members - Turkey.

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<sup>1</sup> NATO. 2014. *Wales Summit Declaration*. Newport, 2014. [cit. 2019-06-01]. Available from: <http://bit.ly/2RHtpww>

<sup>2</sup> ODEHNAL, Jakub - NEUBAUER, Jiří. Economic, Security, and Political Determinants of Military Spending in NATO Countries. *Defence and Peace Economics*. DOI: 10.1080/10242694.2018.1544440 ISSN: 1476-8267.

In this context, the aim of this article is to analyze whether the commitment to spend no less than 2% of GDP on defense has or will be likely to become an effective determinant of military expenditures in NATO nations. By examining the officially declared and actual amounts of military expenditures in NATO member states, it submits probable effects of the 2014 Wales Summit Declaration on defense burden sharing within the NATO.

## MEASURING THE DEFENSE BURDEN

The issue of military expenditures has been examined by many authors, most frequently from the point of view of their role in public expenditures,<sup>3</sup> effects of military expenditures on economic performance<sup>4</sup> or factors determining the demand for military expenditures.<sup>5,6</sup> Another area of research related to military expenditures covers the issue of military expenditures for stabilization<sup>7</sup> or approaches to measuring military expenditures,<sup>8</sup> often within the context of either military alliance theory<sup>9</sup> or conflict research.<sup>10</sup> Several difficulties are connected with studying and analyzing the military expenditures data.

First, it is the data validity, often negatively influenced by the existence and use of several different definitions of military expeditions as well as by (intentional or unintentional) improper reporting by governments. Further discrepancies might result from inflation corrections of data in time or conversion factors among different currencies. Last but not least, although just one of the inputs in the defense system, military expenditures data might be used as an indirect indicator of military strength. Some of the difficulties indicated above can be mitigated by using a relative approach to military expenditures. Measuring military expenditures as a share of national GDP represents one of the most frequently used indicators. Does it represent an adequate approach with regard to the defense burden within military alliances?

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<sup>3</sup> HOLCNER, Vladan - OLEJNÍČEK, Aleš; HORÁK, Roman; MUSIL, Petr. *National Defense Economics - Essentials*. Brno: University of Defence, 2012. 135 p. ISBN 978-80-7231-817-9

<sup>4</sup> BENOIT, Eile. Growth and Defense in Developing Countries. *Economic Development and Cultural Change*, 26 (4): 271-280. ISSN 1539-2988.

<sup>5</sup> Ref. 3

<sup>6</sup> NIKOLAIDOU, Eftychia. The Demand for Military Expenditure: Evidence from the EU15 (1961-2005). *Defence and Peace Economics*. Vol. 19, No. 4. p. 273-292. DOI: 10.1080/10242690802166533. ISSN: 1476-8267.

<sup>7</sup> HOLCNER, Vladan - OLEJNÍČEK, Aleš. Possibilities of Defense Spending Stabilization. *Journal of Security Sustainability Issues*, 2017, Vol. 7, No. 1, p. 5-16. ISSN 2029-7025.

<sup>8</sup> BRZOSKA, Michael. The Reporting of Military Expenditures. *Journal of Peace Research*. Vol. 18, No. 3, p. 261-275. ISSN: 00220027.

<sup>9</sup> MURDOCH, C. James - SANDLER, Todd. Complementarity, Free Riding, and the Military Expenditures of NATO Allies. *Journal of Public Economics*. Vol. 25, No. 1-2. p. 83-101. ISSN: 0047-2727.

<sup>10</sup> GOERTZ, Gary - DIEHL, Paul F. Measuring Military Allocations: A Comparison of Different Approaches. *Journal of Conflict Resolution*. Vol. 3. No. 3, p. 553-581. ISSN: 00220027.

### **Advantages of Measuring Military Expenditures as the GDP Share**

Measuring military expenditures as a share of GDP is connected with several advantages. First, this indicator represents a relatively simple measure of the share of national resources allocated to defense. In other words, it clearly shows a general burden of military expenditures in a given economy, i.e. its defense burden.

When compared at the international scale, it can also indicate the actual priorities or ambitions of a given country (its government). Concerning international analyses, measuring military expenditures as the GDP share enables simple comparisons at regional, alliance as well global scales. Such comparisons do not require converting different national currencies to a common one.

As a relative indicator, it automatically absorbs changes in the economic performance and price levels. The automatic absorption of changes in price levels (inflation) also mitigates the issue of defense specific inflation.<sup>11</sup>

From the point of view of defense planning, predictions of military expenditures based on the expected GDP share are closely connected with governmental predictions of general economic performance and therefore, tied to general national planning.

### **Disadvantages of Measuring Military Expenditures as the GDP Share**

In spite of several advantages indicated above, focusing on military expenditures expressed as their share of the national GDP is also connected with certain drawbacks. First, as any form of measuring military expenditures, their share of the national GDP has no direct link to defense capabilities or military power. It is just a relative measure of one of the inputs in defense production function. The output (as well as the outcome) of this function depends - besides military expenditures - on the level of other inputs (human, material, know-how) as well as on the effectiveness and efficiency of the respective national defense system (incl. the military). So, although military expenditures as a percentage of national GDP are often used to indicate national efforts in defense and sometimes even as one of the indicators of national military strength, it simply does not consider efficiency, effectiveness and economy, i.e. the 3E in defense.

As a purely financial indicator, military expenditures as GDP share do not reflect indirect (hidden or non-monetary) spending. Similarly, military expenditures as GDP share do not cover non-military contributions to defense and security, e.g. economic or political.

Another drawback of measuring the military expenditures as the GDP share is connected with general geographical, political, economic and security characteristics of countries. It does not reflect different force models (all-volunteer vs. conscription-based forces) and different force structures (e.g. land locked country with no naval forces vs. country with robust naval forces).

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<sup>11</sup> HOLCNER, Vladan - NEUBAUER, Jiří. Modelling Expected Defense Specific Inflation. In: *Proceedings of the International Conference on Numerical Analysis and Applied Mathematics 2014 (ICNAAM-2014)*, AIP Conference Proceedings, 1648. Melville, USA: AIP Publishing, 2015, p. 720010-1-720010-4. ISBN 978-0-7354-1287-3.

With regards to defense planning, although being connected with general predictions of GDP, in case of unstable GDP development, linking defense spending to economic performance results in unstable defense budgets. Especially in case of unexpected changes in the GDP development, military expenditures tied to GDP change as well. Such unexpected changes in military expenditures might bring instability especially in armed forces modernization projects.

Last but not least, when subject to international negotiations on commitments within alliances, limitations of national defense burden etc., measuring military expenditures as the GDP share might become an impulse for “creative” accounting, consisting mainly in attempts to flexibly modify the definition of military expenditures used.

## **IMPLEMENTATION OF RECENT NATO DEFENSE SPENDING COMMITMENTS**

To assess the potential effectiveness of current military spending commitment of NATO nations, the behavior of NATO nations concerning the recent defense spending commitments is to be examined, i.e. these commitments are to be compared with the actual military expenditures. Certainly, initiatives and commitments within NATO do not represent the only direction for defense and security efforts of NATO member countries. Majority of them are members of the European Union (EU) at the same time, many are involved in a number of different regional defense and security initiatives. For instance, in 2017, 20 EU and at the same time NATO member states along with additional 5 EU members established the Permanent Structured Cooperation (PESCO), aimed at joint development of defense capabilities for national and multinational missions and operations. These initiatives are not in conflict but rather complementary to NATO initiatives and should have no influence on the ability of NATO nations to fulfill their spending commitments within NATO.

To assess the historical effectiveness of the NATO nations’ defense spending commitments, an analysis of the last 10 years has been conducted. With regard to the NATO nations’ military spending commitments, the last decade can be divided into two periods. First, it is the period between the years 2009 and 2013, i.e. the period after the NATO Summit in Bucharest and before the NATO Summit in Wales. Second, it is the period after 2014 where the data available enable covering the years 2014 through 2018.

### **Implementation of the NATO Guideline Between 2009 and 2013**

During the NATO Summit, held in Bucharest in 2008, NATO nations emphasized the importance of allocating the resources necessary for NATO to perform the tasks demanded by NATO nations. This general proclamation was complemented with an encouragement for NATO members whose military expenditures were declining to halt that decline and to focus on their increase in real terms.<sup>12</sup> Although just an encouragement, being signed by the heads of NATO nations, it can be viewed as a common and public expression of the will of these nations and therefore, certain “soft commitment”.

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<sup>12</sup> NATO. *Bucharest Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Bucharest on 3 April 2008.* [cit. 2019-05-25] Available from: <http://bit.ly/2P9if71>

**Table 1: Share of Military Expenditures in National GDP of NATO Nations Between 2009 and 2013**

Country	2009	2010	2011	2012	2013	Country	2009	2010	2011	2012	2013
Belgium	1.2%	1.1%	1.0%	1.0%	1.0%	Luxembourg	0.4%	0.5%	0.4%	0.4%	0.4%
Bulgaria	1.9%	1.8%	1.4%	1.5%	1.6%	Netherlands	1.4%	1.3%	1.3%	1.2%	1.2%
Canada	1.4%	1.2%	1.2%	1.1%	1.0%	Norway	1.6%	1.5%	1.4%	1.4%	1.4%
Czechia	1.3%	1.2%	1.1%	1.1%	1.0%	Poland	1.8%	1.8%	1.8%	1.8%	1.8%
Denmark	1.4%	1.4%	1.3%	1.4%	1.2%	Portugal	2.0%	2.0%	2.0%	1.9%	2.1%
Estonia	2.2%	1.7%	1.7%	1.9%	1.9%	Romania	1.3%	1.3%	1.3%	1.2%	1.3%
France	2.5%	2.3%	2.3%	2.2%	2.2%	Slovakia	1.5%	1.3%	1.1%	1.1%	1.0%
Germany	1.4%	1.4%	1.3%	1.3%	1.2%	Slovenia	1.6%	1.6%	1.3%	1.2%	1.1%
Greece	3.2%	2.7%	2.5%	2.4%	2.4%	Spain	1.3%	1.4%	1.3%	1.4%	1.3%
Hungary	1.1%	1.0%	1.0%	1.0%	0.9%	Turkey	2.5%	2.3%	2.1%	2.1%	2.0%
Italy	1.6%	1.5%	1.5%	1.4%	1.4%	UK	2.4%	2.4%	2.3%	2.2%	2.1%
Latvia	1.4%	1.1%	1.0%	0.9%	0.9%	USA	4.6%	4.7%	4.6%	4.2%	3.8%
Lithuania	1.1%	0.9%	0.8%	0.8%	0.8%						

Source: Adapted based on SIPRI Military Expenditure Database. [cit. 2019-06-04]. Available from: <https://sipri.org/databases/milex>

To examine the implementation of the NATO spending guideline between 2009 and 2013, development of the share of military expenditures of NATO nations in national GDP is analyzed. The growing indicator of military expenditures as the GDP share shows fulfillment of the commitment consisting in eliminating any decline of military spending and aiming at its increase in real terms.

At the beginning of 2009, NATO consisted of 26 member nations, out of which 25 are subject to the examination of the development of their national share of military expenditures of GDP.<sup>13</sup> Using the data of the Stockholm Peace Research Institute (SIPRI), in 2009, just 7 NATO nations spent at least 2% of their respective national GDP on defense (see Table 1). In 2013, it was one country less, i.e. only 6 NATO members.

<sup>13</sup> Note: Iceland allocated no military expenditures and therefore, it has been excluded from the analysis.

Between 2009 and 2013, development of the military burden in individual NATO member states indicated a prevailing decreasing trend. The percentage of military expenditures in GDP in Luxembourg (0.4% GDP), Poland (1.8% GD) and Romania (1.3% GDP) shows stagnation and Portugal recorded a moderate increase of its defense burden (from 2.0% to 2.1% GDP). Nevertheless, all the remaining 21 NATO member states reported a decrease. On average, this indicator dropped from the initial average level of 1.8% GDP in 2009 to the level of 1.5% GDP in 2013. The most visible decrease of the share of military expenditures in GDP was experienced by Greece (by 0.87% to 2.4% GDP in 2013) and the USA (by 0.82% to 3.8% GDP in 2013). Three more countries recorded a decrease exceeding 0.5% GDP (Slovakia, Slovenia and Turkey).<sup>14</sup>

Based on the development of military expenditure data between 2009 and 2013, it is evident that the commitment of NATO nations to halt further decline and to aim to increase military expenditures in real terms proved to be ineffective.

### **Implementation of the 2014 Commitment**

As already mentioned above, during the 2014 NATO Summit in Wales all member states declared their commitment to reach the level of military expenditures at least 2% of their GDP by 2025 latest.<sup>15</sup> This commitment can be viewed as one of the reactions of NATO members to the annexation of Crimea by the Russian Federation and events in eastern Ukraine. Compared to the “soft commitment” characterizing the period between 2009 and 2013, this funding target has been formulated clearly and with a specific timeframe.

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<sup>14</sup> Stockholm Peace Research Institute. *SIPRI Military Expenditure Database*. [cit. 2019-06-04]. Available from: <http://bit.ly/2LI72YM>

<sup>15</sup> Ref. 1

**Table 2: The Share of Military Expenditures in National GDP of NATO Nations Between 2013 and 2018**

Country	2014	2015	2016	2017	2018	Country	2014	2015	2016	2017	2018
Albania	1.3%	1.2%	1.1%	1.1%	1.2%	Lithuania	0.9%	1.1%	1.5%	1.7%	2.0%
Belgium	1.0%	0.9%	0.9%	0.9%	0.9%	Luxembourg	0.4%	0.5%	0.4%	0.6%	0.6%
Bulgaria	1.5%	1.3%	1.4%	1.4%	1.7%	Netherlands	1.2%	1.1%	1.2%	1.2%	1.2%
Canada	1.0%	1.2%	1.2%	1.3%	1.3%	Norway	1.5%	1.5%	1.6%	1.6%	1.6%
Croatia	1.6%	1.5%	1.4%	1.4%	1.5%	Poland	1.9%	2.1%	1.9%	1.9%	2.0%
Czechia	1.0%	1.0%	1.0%	1.0%	1.1%	Portugal	1.8%	1.8%	1.7%	1.7%	1.8%
Denmark	1.1%	1.1%	1.2%	1.1%	1.2%	Romania	1.3%	1.5%	1.4%	1.7%	1.9%
Estonia	1.9%	2.0%	2.1%	2.0%	2.1%	Slovakia	1.0%	1.1%	1.1%	1.1%	1.2%
France	2.2%	2.3%	2.3%	2.3%	2.3%	Slovenia	1.0%	0.9%	1.0%	1.0%	1.0%
Germany	1.2%	1.2%	1.2%	1.2%	1.2%	Spain	1.2%	1.3%	1.1%	1.2%	1.3%
Greece	2.3%	2.5%	2.5%	2.5%	2.4%	Turkey	1.9%	1.8%	2.1%	2.1%	2.5%
Hungary	0.9%	0.9%	1.0%	1.1%	1.1%	UK	1.9%	1.9%	1.8%	1.8%	1.8%
Italy	1.3%	1.2%	1.3%	1.4%	1.3%	USA	3.5%	3.3%	3.2%	3.1%	3.2%
Latvia	0.9%	1.0%	1.5%	1.7%	2.0%						

Source: Adapted based on SIPRI Military Expenditure Database. Cit. 2019-06-04. Available from: <https://sipri.org/databases/milex>.

To examine the interim effectiveness of this commitment as a determinant of military expenditures, a similar approach has been used as for the period from 2009 to 2013. The commitment is considered to be effective for countries with the spending level of 2% GDP or higher as well as for those countries where the dynamics of defense burden indicates feasibility of reaching the level of 2% GDP in 2025 or earlier.

As the years 2014 through 2019 represent approx. 40% of the time period set in the NATO Wales Summit Declaration to achieve the 2% GDP spending level, effectiveness of this commitment might be assessed by a simple evaluation if the spending gap (difference between the declared and actual spending levels) elimination represents also approx. 40%.

In 2014, NATO consisted of 28 NATO nations, out of which 27 are subject to the examination of the development of their national share of military expenditures in GDP.<sup>16</sup> In the same year, 3 NATO member states spent on defense 2% GDP or more (France, Greece and USA). At the end of the examined period, in 2018, there were already 8 NATO member states. On average, defense burden in NATO countries increased from the initial average level of 1.44% GDP in 2014 to the level of 1.60% GDP in 2018 (see Table 2).<sup>17</sup>

Out of the 27 analyzed NATO member states, 6 reported a decrease of their military burden between 2014 and 2018, namely Albania (-0.17% GDP), Belgium (-0.05% GDP), Croatia (-0.11% GDP), Portugal (-0.01% GDP), the UK (-0.17% GDP) and the USA (-0.32% GDP). The share of military expenditures in GDP did not change in Slovenia. For the remaining 20 NATO member countries, the period of 2014 - 2019 was the period of increase in their military spending. For these 20 countries, the average increase represented 0.25% GDP.

When focusing just on the 24 NATO nations with the spending level below 2% GDP in 2014, 18 recorded an increase of their defense burden - except for 5 with either decreasing (Albania, Belgium Croatia, Portugal and the UK) or stagnating (Slovenia) military burden. On average, all these 24 NATO nations increased their defense spending by 0.19% GDP between 2014 and 2018 (to 1.48% GDP). By doing so, these NATO nations were able to eliminate approx. 27% of their average spending gap, representing, on average, 0.71% GDP in 2014.<sup>18</sup>

Now, let us have a closer look at different groups of NATO member states characterized by similar changes in their defense burden during the examined period. Based on the situation in 2018 and the dynamics over the examined period, we can distinguish:

- NATO nations meeting the set spending commitment,
- NATO nations likely to meet the set spending commitment in 2025, and
- NATO nations unlikely to meet the set spending commitment in 2025.

The first group of NATO nations meeting their spending commitment of 2% GDP includes 8 countries, namely Estonia, France, Greece, Latvia, Lithuania, Poland, Turkey and the USA (see Table 3 - countries highlighted in green).

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<sup>16</sup> Note: Iceland allocated no military expenditures and therefore, it has been excluded from the analysis. In 2017, Montenegro became the 29<sup>th</sup> NATO member country. Because its membership covers just a minor part of the examined period, it has been excluded from the analysis as well.

<sup>17</sup> Stockholm Peace Research Institute, ref. 14

<sup>18</sup> Ibid.

**Table 3: Classification of NATO Nations Based on the Probability of Meeting the 2014 NATO Wales Summit Spending Commitment**

Country	2014 Military Expenditures as GDP Share	2014 Military Spending Gap as GDP Share	2014-2018 Change in Military Expenditures as GDP Share	2014-2018 Change in Military Spending Gap	Country	2014 Military Expenditures as GDP Share	2014 Military Spending Gap as GDP Share	2014-2018 Change in Military Expenditures as GDP Share	2014-2018 Change in Military Spending Gap
Albania	1.2%	0.65%	-0.17%	-25.65%	Lithuania	2.0%	N/A	N/A	N/A
Belgium	0.9%	1.02%	-0.05%	-5.11%	Luxembourg	0.6%	1.58%	0.19%	12.01%
Bulgaria	1.7%	0.53%	0.22%	41.11%	Netherlands	1.2%	0.84%	0.08%	9.75%
Canada	1.3%	1.01%	0.26%	25.84%	Norway	1.6%	0.53%	0.14%	26.26%
Croatia	1.5%	0.43%	-0.11%	-24.91%	Poland	2.0%	N/A	N/A	N/A
Czechia	1.1%	1.03%	0.15%	14.63%	Portugal	1.8%	0.21%	-0.01%	-5.24%
Denmark	1.2%	0.85%	0.03%	3.78%	Romania	1.9%	0.65%	0.59%	89.91%
Estonia	2.1%	N/A	N/A	N/A	Slovakia	1.2%	1.01%	0.22%	21.44%
France	2.3%	N/A	N/A	N/A	Slovenia	1.0%	1.03%	0.00%	-0.03%
Germany	1.2%	0.82%	0.05%	6.27%	Spain	1.3%	0.75%	0.03%	3.39%
Greece	2.4%	N/A	N/A	N/A	Turkey	2.5%	N/A	N/A	N/A
Hungary	1.1%	1.14%	0.22%	19.22%	UK <sup>19</sup>	1.8%	0.05%	-0.17%	-325.44%
Italy	1.3%	0.71%	0.05%	6.36%	USA	3.2%	N/A	N/A	N/A
Latvia	2.0%	N/A	N/A	N/A					

Source: Own calculation based on SIPRI Military Expenditure Database. Cit. 2019-06-04. Available from: <http://bit.ly/2L172YM>

<sup>19</sup> Note: In spite of certain decrease of its military burden, the UK has remained very close below the set spending commitment (1.78% GDP in 2018). Therefore, it might be included in the group of countries where meeting the set funding target is likely to be feasible.

The second group of NATO nations is represented by those that spend on military less than 2% GDP but were able to eliminate approx. 40% of their spending gap or more between 2014 and 2018. This group includes only Bulgaria and Romania but it can be supplemented with the UK due to its defense burden remaining relatively close to the set spending commitment (see Table 3 - countries highlighted in blue).

The third group consists of NATO countries that spend less than 2% GDP on military and where the dynamics of their spending between 2014 and 2018 resulted in their military burden stagnation or decrease or resulted in an elimination of their spending gap by less than approx. 40%. Following this methodology, this group should include 17 NATO member states. On the other hand, as mentioned above, in spite of certain decrease of its defense burden, the UK has remained very close below the set spending commitment (GDP 1.78%), therefore, it might be considered a country where meeting the set funding target can be feasible. So, the group for which meeting the set funding target seems to be unlikely includes 16 countries (see Table 33 - countries highlighted in red).

The development of military expenditure data between 2014 and 2018 shows an increased number of NATO nations spending 2% GDP or more on military. In addition, 21 NATO nations have increased their defense burden. However, for only 11 countries, the spending commitment has been either fulfilled or can be viewed as likely to be met in 2025. Therefore, the 2014 NATO Wales Summit spending commitment can be assessed as an only partially effective determinant of military expenditures.

## CONCLUSION

In spite of several limitations, using the share of military expenditures in GDP represents a simple tool expressing national military burden and allowing uncomplicated international comparisons and time series analyses. These attributes make this indicator useful for the needs of interaction among members of an alliance.

When assessing the effectiveness of the 2014 NATO Wales Summit commitment of NATO nations to achieve military spending levels at the minimum of 2% GDP by 2025 latest as a determinant of military expenditures, recent developments show ambiguous results.

First, following the 2008 Bucharest NATO Summit, the declaration of the NATO member states to eliminate further decrease in military expenditures and guarantee their growth in real terms resulted in a hardly visible effect in actual spending levels. Between 2009 and 2013, military burden decreased in 21 NATO member states, 3 member states reported its stagnation and just 1 increased its share of military expenditures in GDP. This proves the 2008 Bucharest NATO Summit declaratory spending commitment to be an ineffective determinant of military expenditures. On the other hand, it is important to note that the years 2009 through 2013 represent a period connected with unfavorable economic situation following the 2008 global financial crisis. In this context, it seems that in this period the economic determinants of military expenditures prevailed over the political and security ones, incl. the spending commitment within NATO.

Second, following the 2014 NATO Wales Summit, majority of NATO member states have increased their defense burden. The related spending commitment can be viewed as a partially effective determinant of military expenditures. Although it has resulted in an

average increase of military burden of NATO members, it has been connected with a decrease or stagnation of military burden in 7 member states. NATO member countries that have either newly met or came close to meeting the level of 2% GDP represent the eastern wing of NATO.

Therefore, besides the effect of the spending commitment within NATO, their efforts have been probably influenced by other determinants as well, e.g. the perception of security threats, apparently different from the perception of NATO member states from other regions, e.g. Western Europe.

Moreover, the pace of eliminating the existing spending gap in majority of NATO member countries seems to be insufficient to meet the set spending target in 2025. In addition, military burden in most NATO member states has increased under conditions of favorable economic development, prosperity and growing public incomes. Therefore, an end of this positive economic development as a strong determinant of military expenditures might cause further weakening of the effectiveness of the 2014 NATO Wales Summit spending commitment.

