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LEFT OR RIGHT OF THE BOOM? TRANSFORMING DEFENSE BUDGETS INTO MILITARY CAPABILITIES THROUGH AN INTEGRATED DEFENSE PLANNING AND MANAGEMENT SYSTEM

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Abstract: *Defence resources management relies on effective decision processes that underline more than just the process of spending the money from the approved budget. Decision makers should be able to easily trace the amounts spend not only to input items (such as number of airplanes purchased or salary expenses in a military unit), but also to a military capability and the effects produced by its employment. This information is crucial for decision makers to understand and assess the consequences of their decisions (in military, resource and financial terms) and identify options to improve the decisions for the future.*

Keywords: defence, resources, management, tool, best practices, budget

1. Introduction

The conflict in Ukraine has highlighted a variety of lessons to be identified and learned, in many areas, ranging from the conduct of military operations and the use of various military capabilities to issues like resilience, economic and energy dependence, disinformation, to mention but a few.

In terms of defense budgets, the short term implications of the war in Ukraine have been an increased military spending by NATO countries and allocation for additional funding for NATO missions, as the Alliance deployed forces to Poland, Romania, and the Baltic states to deter Russian aggression. The long term effects are visible in the form of increased defense spending commitments and the increased interest in the development of new military capabilities and the acquisition of modern equipment and weapon systems.

One issue that has been highlighted by the war in Ukraine is not necessarily a new one, but currently has become of utmost importance for the NATO countries: the fact that military effectiveness is not only the result of having/receiving modern equipment and weapon systems, or of increasing defense spending, but derives from the complex interaction of numerous factors and variables of influence. This intricate system of interactions and factors of influence has not been comprehensively studied, as the focus has been more on the individual components of the system (such as the evolution of defense budgets or what type/number of aircrafts a country acquired).

The main research objective of this paper is to investigate the process and defense systems that underline the transformation of financial allocations for defense into military capabilities and actual operational effects. The hypothesis of this study is that increased defense spending will only marginally contribute to an increase in the combat power of NATO countries and the

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Alliance as a whole, without a functioning, mature defense management system that provides the link between defense planning, joint concepts, defense resources management and logistics, acquisitions.
The paper uses qualitative research methods, based on the analysis of existing specialized literature regarding the concepts of defense management, resources management and defense planning and on the analysis of the data regarding the defense expenditures of NATO countries.

2. The need to connect resource management processes, defence budgets, operational planning processes and force employment

Defense budgets can be considered as the linchpin between two sides of a defense management system and force employment system. To illustrate this point, we can draw a parallel with two commonly used military idioms, namely “left to the boom” and “right to the boom”. Initially, the phrase "left of boom" referred to “the U.S. military's effort to disrupt insurgent cells before they can build and plant bombs”[1]. In a broader sense, left to the boom refers to the events, decisions and actions that took place/were taken before an explosion or incident. This is the time when individuals and organizations still have the time and opportunity to anticipate, prepare, train, develop and take the appropriate decisions to avoid a problem or at least to mitigate the impact of an unavoidable crisis.
Similarly, “right of boom” initially referred to the “U.S. military's effort to mitigate effects of IED attacks with better equipment, trauma care” [2], subsequently being used with the meaning of the events, decisions and actions that take place after the problem or crisis occurred, in other words the actual use of the existing resources, implementation of the procedures and plans, the actions performed to manage the results of the crisis/problem.
Should we use the moment when the defense budget is approved as reference point (the boom), then the left of the budget we have processes and activities such as defense planning and management (defined as the process of transforming the defense resources into military capabilities, in view of achieving the defense objectives), requirements identification, capabilities development, operational planning. Right of the budget (after the approval of the budget and the actual allocation of financial resources) we have all the systems and processes underlying the strategic, operational, or tactical employment (use) of the forces employment, the tradeoffs regarding actual resource allocations between programs, projects, capability components and the changes in the actual financial allocations due to budgetary reviews.
An increase of the defense spending is not a substitute for these processes, as what comes right of the budget is also a direct consequence of what happens left of the budget. The conflict in Ukraine clearly outlined this aspect, as the resistance of the country in face of the aggression can also be analyzed from this perspective. The financial and military assistance received by Ukraine “right of the boom”, after the attack from Russia, is quite substantial. As seen in Figure 1, according to the data from Kiel Institute [3] the biggest financial commitments have come from the EU, in amount of 30.2 billion euros in form of loans, but other countries have also contributed, to a total amount of 73.39 billion euros.

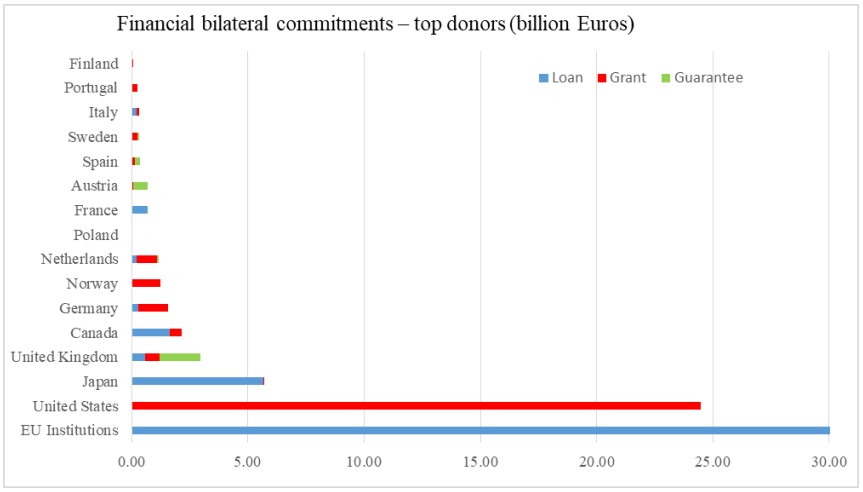


Figure 1: Financial bilateral commitments to Ukraine, source: Kiel Institute dataset, https://www.ifw-kiel.de/publications/data-sets/ukraine-support-tracker-data-17410/

Although this financial aid played a very important role in supporting Ukraine's economy and the functioning of the country, in terms of resisting aggression, the military aid was decisive.

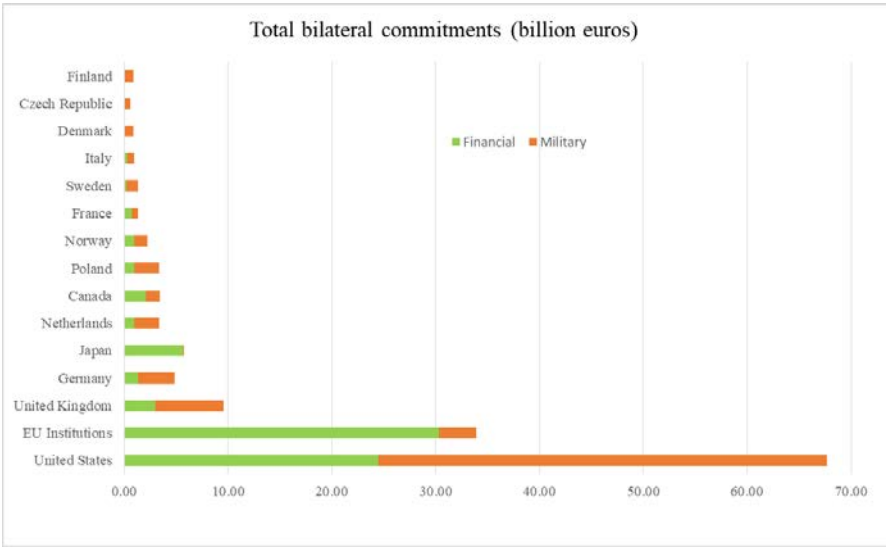


Figure 2: Total bilateral commitments for Ukraine, in billion euro, source: Kiel Institute dataset, https://www.ifw-kiel.de/publications/data-sets/ukraine-support-tracker-data-17410/

According to figure 2, the biggest military contributions came from the United States and United Kingdom, in the form of modern precision weapons, ammunition, technology and training assistance. This aid has been vital as, despite its technological gap, Russia has the power of its sheer size of manpower, weapons and stocks of ammunition. Lacking the western military aid, Ukraine would not have been able to

withstand the attack, as many of its units are still equipped with soviet type weapons and lack appropriate training in using modern weapons.

The impressive amount of financial and military aid has come after several years of "left of the boom" activities aimed at increasing the combat effectiveness of Ukraine after the seizure of Crimea by Russia in 2014. These activities cam in the form of western help in reforming the military, such as developing and NCO corps, increase junior leaders initiative and decision making abilities, improved training, leadership development, developing Ukraine's Special Operation Forces [4], putting in place mechanisms to increase resilience and resistance, such as implementing a mechanism to allow the fast recruitment of civilians into territorial defense forces.

The effectiveness of a military is the result of the accomplishment in a coordinated manner of six main functions [5], with direct implications on defense resources management:

- Organize (determining the objectives, designing the organizational structure, developing functional processes, gather resources)
- Train (achieve and maintain the required level of proficiency of the workforce)
- Equip (procurement and modernization of the required equipment and weapon systems)
- Deploy (positioning the forces so that they can conduct operations)
- Employ (using the forces)
- Sustain (ensuring the appropriate maintenance, supply and proficiency to provide the continuation of the operations for the required duration).

The flawless integration and implementation of these functions is the trademark of an effective defense resources management system, but is by no means an easy feat, as it requires the integration of various areas of planning and management. According to Hinkle, Fletcher et all [6], the main four planning areas that compose a functioning defense resources management system are the following:

- *Strategic Planning*, aimed at identifying the main security and defence challenges, goals, objectives and priorities
- *Capability Planning*, aimed at identifying the capability requirements, the capability gaps and the steps necessary to fill in those gaps, based on analyses of various courses of action taking into account costs, operational benefits and risks
- *Resource Planning*, aimed at aligning the financial allocations with the objectives and correlating budgetary funding to priorities, within the fiscal limits in the form of defence programs, annual plans and budgets.
- *Acquisition Planning*, aimed at analysing the best approach from the procurement perspective of filling the capabilities shortfalls.

These planning areas are just part of the defence resources management process and the distinction between them is sometimes difficult to delimitate, due to the fact that generating and employing a capability, and in the end obtaining an operational result, is a constant interplay between planning and the implementation of those plans, with the budgetary allocations the link between these two areas.

Resource management is intrinsically linked to the military planning, as shown in Figure 3 below.

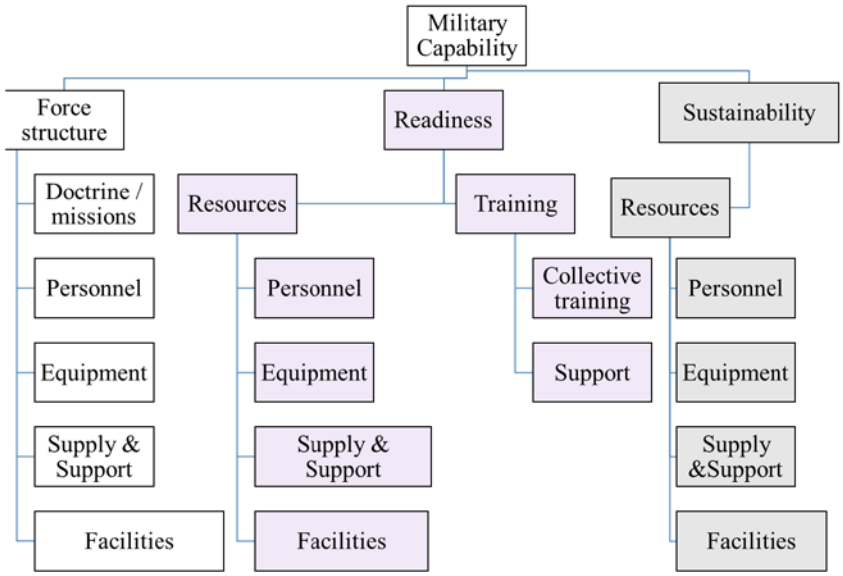


Figure 3: The components of a military capability, with emphasis on resources. Adapted by the author from Australian Defence Force Publication Operations Series ADFP 4 Preparedness And Mobilisation, chapter 1, https://www.navedu.navy.mi.th/stg/databasestory/data/laukniyom/workjob/bigcountry-workjob/Australia/ADDP00-2ADFP-4-PREP-MOB.pdf

The resources required for the basic force structure will have to be augmented, depending on the required level of readiness and on the duration of an operation. For example, an infantry battalion can be considered a capability if it has a 60% level of manning (from the existing positions in the organization chart, only 60% are actually filled), but cannot be considered a high readiness force with the same level of manning. The higher the level of readiness required by a specific mission, more resources will have to be allocated. An increased operational tempo may mean an increase in the operation and maintenance costs, higher readiness will be translated in more collective training hours with higher consumption of ammunition, fuel or other consumables. The increased training requirements may also generate the need for additional infrastructure (building a new firing range, for example).

Planning and managing defence resources means clearly highlighting the difference in resource requirements (from number of people or gallons of aviation fuel to costs and financial requirements) between various levels of readiness, starting from a basic operational level up to the highest readiness level. But the time dimension also needs to be taken into consideration, as it may generate unsustainable costs. An infantry battalion required for a one year operation is literally not just one battalion, as it requires rotation. Sustaining an operation for a specific period of time will generate additional costs compared to ensuring that an infantry battalion is at the required level of readiness as it remains in its base.

Transforming defence budgets into capabilities and then using those capabilities to provide an operational effect requires a functioning defence resources management system integrated into the larger defence planning and force employment system in a System of Systems approach. Limiting defence resources management to the yearly spending of the budget allocations is a very dangerous

misunderstanding of how this system works and it leads to the illusion that simply increasing the financial ceiling (the budget) will solve all the other problems. The military, like any other organization, has to function under the tyranny of scarcity – the needs will always exceed the available resources (figure 4). In peacetime there will be other competing demands for state budget allocations, the number of personnel in the military is limited, the number of vehicles acquired in one year or the logistic support is limited by the availability of funds or issues related to supply chains. Even in wartime, when the country's economy will be geared towards supporting the war effort and the personnel problem may be increased through drafts, there will still be problems related to insufficient training, losses of equipment, facilities, or manpower, the destruction of supply routes and critical infrastructure. Scarcity will never go away, but can be managed in the best possible way, by establishing clear priorities (in order to establish the link between objectives and resources) and risk management throughout the system and all its phases (in order to understand the potential consequences of decisions taken in terms of operational effects, resources requirements and costs).

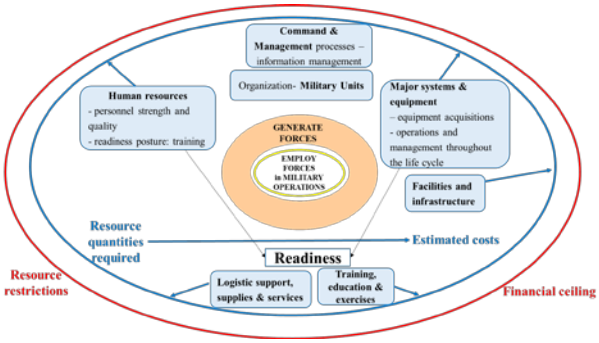


Figure 4: A resource view on generating and using forces

A functioning and effective defense management and defense planning system should provide the answers to three crucial questions, drawing upon the outputs of the resource planning and operational planning processes:

-what are our resource needs?

-what are the priorities for allocating the scarce resources, at all levels of the military organization?

-what are the optimum decisions/tradeoffs in terms of military capabilities, efficiency (the wise use of resources) and effectiveness (obtaining the desired outcome)?

3. Conclusions

Defence resources management relies on effective decision processes that underline more than just the process of spending the money from the approved budget. Decision makers should be able to easily trace the amounts spend not only to input items (such as number of airplanes purchased or salary expenses in a military unit), but also to a military capability and the effects produced by its employment. This information is crucial for decision makers to understand and assess the consequences of their decisions (in military, resource and financial terms) and identify options to improve the decisions for the future.

An effective defence resources management system has to use inputs from the processes on right side of the budget (Force employment and force and program

management) with the processes on the left side of the budget (strategic planning, capabilities/force planning, resource planning, risk management), with operational planning inputs used on both the processes on the left and on the right of the budget to describe the current operations and provide the information for the future required capabilities.

In the current security and defence environment, the trend of increasing defence budgets in NATO member countries will likely continue, but in order to be able to effectively transform the increased financial allocations into results, the NATO member nations have to identify at national level the best approach of integrating the processes, methodologies, frameworks and tools that underline an effective defence resources management system, considering their national limitations and specifics.

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