

# **THE IMPORTANCE OF ECONOMIC-FINANCIAL INDICATORS FOR THE FULFILLMENT OF INTERNATIONAL MISSIONS**

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## **Abstract**

In the current international context, Romania faces a double challenge, to fulfill the obligations to NATO and its allies and the economic requirements of the European Union. In this context, the defense budget is subject to contradictory pressures, amplified by the international financial crisis. The analysis below is not exhaustive, many other economic and financial indicators for international missions can be identified, depending on specific variables. Their importance derives from the need to optimize the use of scarce resources allocated to this type of mission and to make efficient the decision making process.

Romania's membership to NATO and European Union has numerous and important implications on both the country's economy and the military area. These implications derive from the need to fulfill well defined economic criteria (related to the budget deficit and other macroeconomic indicators demanded by EU membership) but also from the need to fulfill the military and political obligations undertaken towards our allies. Romania's participation to various international missions (ranging from ISAF peacekeeping operations in Afghanistan, UNAVEM in Angola, IFOR/SFOR in Bosnia, KFOR in Kosovo to logistical support offered to allied military operations in Iraq in 2003 and the

participation in security and reconstruction activities) is the result of the decision to participate and support allied operations, but must also be correlated with the possible financial and economic implications of such participation.

The participation to international operations implies, from a financial point of view, an increase burden on the defense budget, but also the need to re-allocate resources within defense programs. Fulfilling NATO requirements and other requirements deriving from international missions under United Nations, European Union or other coalitions means a reorientation of the funding priorities towards a high degree of modernization of the military equipment and a high degree of professionalization of the personnel.

Romania's membership in the European Union means a careful balancing of the budgetary expenditures, so that the economic stability is not endangered by a sudden increase in budget deficit or inflation. Romania's defense budget is thus the result of two (sometimes conflicting) approaches: the need to limit the budgetary expenses and the need to fund the military expenses, including the costly acquisitions of military equipment and the financing of international missions. Besides these factors, the defense budget (and implicitly the budget for international operations) is also influenced by circumstantial factors, such as the current international economic crisis. The future defense budget is linked to the country's economic growth and a slower increase in GDP is likely to negatively affect the defense funding, as the budget revenues decrease. Such a situation may lead to a new prioritization of the expenses within the military and even though international operations should have a higher priority in financing, they may also be negatively affected.

In this respect, determining economic and financial indicators for international missions is an important step towards optimizing the use of the scarce budgetary resources and towards a more successful estimation of future costs.

The most obvious financial indicator for international missions is the *budget allocated for this type of missions*, based on the estimation of funds needed to cover the cost of military operations abroad. This indicator is useful both as total amount, but also in its breakdown, namely the expense structure and the percentage of personnel, acquisition and operation-maintenance expenses in the total budget; this expense structure provides an insight into the readiness level and the effectiveness of the activity related to these specific missions.

Although such estimation is essential for funding future missions, achieving a precise estimation is difficult, if not impossible, due to various variables which influence this estimation, namely the size, the duration and the intensity of the operations. The estimation is made even more difficult in the situation when no similar operations were conducted, or the previous operation has just ended and detailed information on many of the factors that could affect the cost of the operation are not yet available. A useful source of information regarding this type of estimation is the experience of other allies, but also the lessons learned by our own armed forces from previous operations. In this respect, two of the most used methods of estimating the costs of operations are the top-down approach and the bottom-up approach, deriving from the industrial engineering method of cost estimation. If the future budget for this type of missions is difficult to predict, the budget allocated for international missions in previous years can be used more successfully as a starting point for estimating the amount of money needed to effectively finance international operations.

Another general financial indicator could be the yearly *level of expenses / military*, calculated from two points of view:

- a narrower view, as a ratio between the yearly budget allocated for international missions and the number of military personnel in the operations theaters for that particular year

- a broader view, as a ratio between the yearly budget allocated for international missions and the number of personnel (mainly military, but also civilian) directly involved in the planning and execution of such international missions.

This indicator can be used as a mirror for the unit cost of these missions, but also of the modernization degree of the forces sent in such missions, as it involves all types of expenses (including acquisition, maintenance and operation expenses, scraping expenses etc) besides the personnel expenses. The yearly level of expenses / military of the Romanian troops sent into international missions is especially useful if compared with the similar level of expenses / military incurred by allied countries involved in similar operations or even with a similar average level of expenses / military calculated for NATO.

A more specific type of indicator is the yearly *cost / mission*, which can be detailed for each particular mission performed by Romanian military abroad. Considering that the Romanian participation to international operations consists mainly (but not exclusively) of land forces missions, this indicator can be applied to the different types of missions performed: cost / patrol mission (targeting standard missions), cost / convoy escort mission, cost / perimeter security mission, cost / search mission, cost / reconstruction mission etc.

The calculation of the costs of an international mission may begin with the calculation of the *costs related to the transport of troops and materials* to the theatre of operations. This cost derives mainly from the operation and maintenance expenses related to the means of transport, which can rise to substantial amounts, especially in the case of strategic transport planes, and the less sizable amount of expenses related to the personnel accompanying the transport.

The alternatives available to forward deployment (such as material pre-positioning, enhanced airlift and sealift, or joint training operations) should be

identified and described in detail in order to identify ways to reduce these types of costs.

In order to better encompass the costs involved by a mission, the amortization and a percentage of the acquisition cost of the plane should also be included in this calculation. Sometimes the acquisition costs of the equipments used for the performance of the international mission are included in other cost categories and are not taken into consideration when calculating the cost / mission. Yet this category of costs is pertinent to the particular mission, especially if the equipment is to be used mainly for these types of missions.

In calculating the transportation and sustainment costs (on a per troop or per aircraft basis), a relevant variable is the distance between the theater of operations and the home bases. Costs directly related to aircraft sorties (round-trip missions by individual aircraft), such as fuel, spare parts, and maintenance and repair costs are normally lower when this distance is not too big. Another variable refers to the specific terrain characteristics of the theatre of operations, as adjusting the equipment for specific conditions may also trigger additional costs.

Taking the example of a patrol mission, the starting point for calculating the costs would be to establish the variables influencing the total cost, such as the number of kilometers patrolled, the average speed of the vehicles on patrol, the maintenance costs etc.

The first step would be to establish the number of kilometers patrolled in a certain area and calculate an *average cost/kilometer patrolled*. This cost takes into consideration personnel, maintenance, operation and other types of costs, based on the operational procedures and requirements. This type of analysis must also take into consideration the specific geographical and climatic conditions, as maintenance and operational costs may increase in mountain or desert areas.

Another component of the cost/mission derives from the *operation costs*. One of the most important cost in this category is the fuel consumption cost, calculated taking into consideration the *average cruising speed* of the patrol vehicles. Depending on the type of vehicles used, there is the temptation to calculate the fuel cost based on the optimum cruising speed in order to optimize fuel consumption. Yet in the theatre of operations, this speed is usually established in such way as to maximize the convoy security, meaning a higher speed and higher fuel consumption, so in the estimation of the fuel consumption cost this is the average consumption rate which should be taken into consideration.

In this category of costs, the cost/mission should also include the *replacement costs* for the damaged and destroyed equipment and the *cost of the ammunition used* in the operations.

*Maintenance costs* form another important part of the cost/mission calculation. While the scheduled maintenance cost is easier to calculate, based on specific existing rules and regulations, the unscheduled maintenance (resulting from unforeseen events) is more difficult to estimate. Both types of maintenance depend on the specific climatic conditions in the theater of operations (difficult areas, with heavy dust, big temperature differences or rough terrain), but the cost of unscheduled maintenance is more likely to be increased due to these factors. Allowance must also be made in the cost calculations for the unscheduled maintenance costs resulting from the military operations themselves (damage from bullets, shrapnel, accidents etc). A good estimation of the maintenance costs is important in calculating the overall budget for the international mission, as the US Army found out when the maintenance cost of the Humvee greatly exceeded the estimations and they were forced to ask for an unforeseen budget increment in order to be able to continue the operations in Iraq.

Another issue of debate in computing the cost / mission derives from the *cost of specific training for the military personnel for this types of missions* (field applications and simulations), which is usually featured in the budget of training centers and operational commandments, but should also be added up when calculating the financial implications of an international operation.

This kind of indicators (cost/ international mission/ year, cost/vehicle, cost/patrol mission, cost/transport mission etc) can be particularly useful if compared to the costs incurred by other allies in similar missions, especially if using the same or similar equipment. For instance, the cost/kilometre patrolled or cost/ vehicle or cost /crew for a Piranha III LAV could be compares to the same cost for other members of the coalition in Afghanistan. Should these costs be higher would signal a potential cost problem, as the personnel cost for our country are lower.

The comparison of these indicators to the ones calculated by other allies may also help decision makers analyse and take into consideration another very important cost related to international operations, namely the opportunity cost. Defined as “the value of the next best alternative foregone as the result of making a decision” <sup>[1]</sup>, the opportunity cost is an important (although often ignored) part of a decision-making process. Often, using (or acquiring) cheaper equipment may provide short term financial savings, but on long term such decision may prove a lot more costly.

As an example, a light armored vehicle may have the advantage of a cheaper acquisition price, but the disadvantage of an inferior armor, meaning that it can be easily destroyed. This means that the vehicles must travel in large groups to provide safety in numbers, meaning a very inefficient use of manpower (with the inherent increase in costs) and a drastically reduced area that can be patrolled. At the same time, notwithstanding the cost of the human life, which is impossible and even immoral to be financially quantified, each time a soldier dies, the moral of civilians and soldiers is harmed. The result is a

reduced military effectiveness and the total cost may be a lot larger than the original financial savings.

The financial and economic indicators for international missions analyzed above are by no means exhaustive. For each type of mission and depending on specific variables, a lot more particular indicators can be identified. In this respect, the importance of these indicators derives not only from the correct identification of all relevant indicators, but also from the way these indicators are used to facilitate better decision-making and a more cost-effective use of the existing funds.

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