

#15

# THE ECONOMICS OF EUROPEAN DEFENCE: SOME ADDITIONAL INSIGHTS

BY

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**Comment**

## PRESENTATION

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**B**rexit and budgetary constraints will offer possibilities, at least from a theoretical point of view, to foster cooperation among European countries from both an industrial and a policy perspective. Economic theory is useful in order to provide ways to increase efficiency. This comment is an attempt to evaluate a number of economic principles applied to the economics of defence.

## LINK BETWEEN BUDGETARY MEANS AND DEFENCE CAPABILITIES

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EDA figures highlight the downward trend in defence budgets over 10 years. One reason is probably the recent economic crisis, since major decreases have been noted in Italy, Greece, or Spain. Besides budgetary constraints, defence inflation has been estimated as slightly higher than general inflation measured by consumer price index. As a consequence, armed forces have been reduced compared to previous formats. From an industrial point of view, reduced production quantities push higher production costs; and from a policy point of view, some defence capabilities have been forsaken.

This leads us to several interrogations. The first one is associated with the aim of defence: in economics literature, no clarification on the need for defence has been emphasized. However, it is crucial to evaluate means with their respective objective. It is clear that there are less and less defence platforms in service (at least for European countries), but this does not necessary mean that the global efficiency in terms of defence production is declining. Technology may partially help to compensate the decrease in terms of numbers of platforms.

The second issue is about measuring efficiency. To the best of our knowledge, there is no way to genuinely quantify defence output (Hartley, 2012). The simplest solution is to consider the identity output as equal to the budget assumed by national accounts. Our point is that output is critically associated with defence objectives. Consider the cases of France and Germany. Each country roughly spends the same amount to defence, but their objectives are quite different. France has a fairly interventionist doctrine with a nuclear deterrence posture, whereas Germany has a traditionally non-interventionist one. France spends roughly twice as much as Germany in defence equipment. Can we conclude that France is more efficient than Germany? Unfortunately, the issue of defining efficiency is barely evoked.

## THE EUROPE OF DEFENCE IN THE LIGHT OF ECONOMIC PRINCIPLES

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Based on some economic principles, one may discuss the Europe of defence. These principles, defined by Keith Hartley in the ARES paper *The economics of defence*, are as follows : competition, specialization, scale, club goods, substitution and output.

The first principle is competition: more competition leads to fair prices and innovation. This principle seems to work poorly for defence. Sovereignty matters and this implies little competition, especially for nuclear activities. Moreover, the link between innovation and competition appears rather complex, with no clear-cut answer (see Aghion et al. 2005). As the defence market is characterized as a monopsony, public authorities regulate both supply and demand sides; then, the need for competition appears to be less clear. Finally, the British experience of outsourcing indicates that the net benefit is rather small (HM Treasury, 2012). The case of RAF tankers is here interesting to mention in order to underline the limits of outsourcing.

The second principle focuses on specialization: each country should specialize in a specific defence function. From a positive point of view, specialization depends on historical legacy. For instance in naval industries, France, Italy, the Netherlands, Spain, and the UK have a long history of production, and it will be difficult to merger all industries in one country given the very nature of naval capabilities required (France and the UK are nuclear powers, with need for projection abroad, whereas the others mainly need coastal surveillance). Specialization would then require defining collective objectives. However, there is some room to improve the situation given the dispersion of naval and land vehicles industries within Europe (see the recent merger between Nexter and KMW).

The third principle relies on scale. It is an obvious source of efficiency but, once again, it suffers limitations when applied to defence. As argued by Droff and Bellais (2016), heterogeneity in terms of nations' preferences has prevented change on the scale of production, particularly for activities close to the core of national sovereignty (for example MRO or nuclear activities). Pooling R&D and production is attractive, but the A400M experience provides a good example of what not to do. The "*juste retour*" principle may jeopardize efficient pooling. Other examples can be found with Tiger combat helicopters or multimissions frigates (FREMM).

The fourth principle is associated with club goods, which are defined by exclusion and non-rivalry. As stated by Gates and Terasawa (2003), in an alliance, some features of defence are closer to club goods rather than public goods. A recent example is Belgium

and the Netherlands, who decided to buy ships in common. However, this possibility needs to be preceded by the definition of common goals.

Substitution constitutes the fifth principle. By adjusting labour and capital, one may find the optimal quantity of each input. The choice of major European countries is to replace labour by equipment, so that capital intensity increases. New generations of defence platforms are able to cover more missions, and the number of these platforms is also decreasing. The current substitution generates issues in terms of overutilization, such as in France in 2016, and thus consequences on maintenance cost and training in the long run.

The last principle is output. Since defence is the sum of inputs (labour and capital), it is difficult to evaluate its efficiency relative to defence output. The key question is to properly define defence output. The quest of a metric for defence output is undoubtedly a major issue for economists and policy makers. From an economic theory perspective, data envelopment analysis is a powerful tool to quantify efficiency. ■

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