

GLOBAL AND REGIONAL SECURITY ALLIANCES

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Summary

The theory of alliances allows us to understand the nature and the functioning of alliances, particularly NATO and its recent evolution. However, NATO remains a unique and specific example and the studies applying the numerous hypotheses and conclusions of alliance theory to other organizations are rare. Consequently, this article tries to compare the characteristics of three organizations (ECOWAS, SADC and ASEAN) with NATO. These three organizations are not explicitly military alliances and their statutes and missions are less precise and less defined than those of NATO. Indeed, they can pursue economic objectives, as for example, economic development. An analysis of data from these four organizations allows us to compare the similarities and the differences between these organizations according to their fundamental objectives and purposes.

1. Introduction

In economics, the concept of national security is an objective which nations seek to achieve since it yields them direct or indirect benefits. The direct benefit is that it can prevent war and the casualties and loss of resources resulting from it. An indirect one is that enhanced security can often foster greater trade and economic relations between countries. Security is undermined when a country is engaged in an arms race with an adversary since the opponent's military expenditures or stocks of arms constitute a threat and therefore, reduce security. Similarly, security can be increased if a country enters into a military alliance since the military expenditures of any one member in a military alliance of countries serve to increase their collective security. The usefulness of economics in the study of alliances is guided by three topics: production, costs and the theory of public goods. The first is motivated by the fact that national security is produced by using the inputs (e.g., weapons and military personnel) of the member

nations. Since resources are required in its production, then the sharing of the costs between allies will have an important impact on the optimal provision of security. This has been a key issue for economists since Olson and Zeckhauser's seminal paper in 1966. Finally, if defense or deterrence is a public good, then several hypotheses about the organizational structure of alliances, whether evolving or already in existence, can be derived. Most of the literature on alliances has generally concentrated on NATO and therefore most of the other alliances still remain little studied. In this chapter, we intend to compare the structure and the level of commitment of member countries of other alliances as well, in the hope of suggesting new topics for future research.

2. Economic Analysis of Alliance

A military alliance can be defined as a cooperation of nations to ensure the security of all its members from aggressions from other countries. Thus, joining an alliance is justified only if the global protection provided by the alliance for an individual member nation is greater than what the individual member can provide for itself. The output from an alliance of states can be viewed as a pure public good. The consumption of such a commodity is defined by Lindahl as possessing three characteristics: it is indivisible, non-rivalrous and non-excludible. Non-rivalry is possessed by a good when one person's consumption or use of it does not prevent anyone else from consuming it as well. Non-excludability refers to when it is prohibitively expensive to exclude someone who is not willing to pay for the commodity from consuming or using it. In contrast, a private good is totally rival and exclusive, and when it is consumed by an individual (or a state in the case of international organizations), it becomes unavailable for other's consumption. International security and global peace can be examples of pure public goods: when they exist, peace and security benefit all nations in an identical manner whatever the number of nations. On the contrary, a bodyguard is an example of a private good given that its services are private and largely exclusive. Finally, other goods give rival advantages but without really allowing the exclusion of someone from using them. These can be described as pure collective goods; the electromagnetic spectrum is an example.

Since it is costly to produce security, it is important to understand how these costs should be optimally allocated amongst member nations. If defense is a purely public good, then its optimal provision requires that it be produced up to the point where the sum of the marginal valuation of each member of the alliance for defense is equal to the cost of producing it. The optimal sharing of costs requires that each nation's contribution be equal to its valuation. Nevertheless, Olson and Zeckhauser noted that in the case of NATO, the US and some of the other richer members incurred a disproportionate burden of the cost of the common defense, whereas other states did not even pay their contributions. More specifically, there existed a positive relationship between income or GNP and the burden of defense as measured by the share of defense in GNP. At the same time, they highlighted the fact that alliances have a tendency to under-provide defense, from a Pareto-optimal standard. Finally, they noted that the number of members in the alliance and the composition of the membership are affected by the public goods nature of defense.

As a result of these observations, economists have explored the implications of relaxing

some of the assumptions of the Olson-Zeckhauser model to account for other empirical regularities, in particular of the NATO alliance. First, the nature of the output of alliances can modify the choices of states. In 1967, Van Ypersele de Strihou was the first economist to emphasize the possibility for some countries to realize private benefits from an alliance. When an alliance's military forces intervene to protect the specific interests of some country, these operations do not allow any gain or surplus for the other member countries (the case of NATO sending troops to Angola to preserve the political influence of Portugal is an example). Subsequently, the possibility of obtaining private benefits can justify the observed asymmetries in the share of alliance costs.

Sandler uses this observation to define the concept of a joint product in the production of security. A joint product is a good which is neither collective nor private, but one that procures collective and private outputs. Thus, the various activities of an alliance can be classified as either defensive (which is a pure public good), or protection (the private output of the alliance) where this depends on the threats each country perceives. The nature of these activities is determined by their universality, their credibility, the flow of information and the required defense capability. Similarly, the constitution of a collective defense is defined as a purely strategic action: it constitutes a threat of reprisals that has to generate a believable dissuasion to the common rival, even to the point of threatening the civilian population (counter value) to increase its credibility. In contrast, protection has an exclusively defensive objective, defined more by actions than by threats. In many studies, the benefits of alliances are a combination of these two outputs (defense and protection) whose shares vary for each country and through time, depending upon the nature of the alliance or the objectives or needs of member countries.

Another possible explanation for the disparity in the provision of defense within an alliance derives from the fact that an increase in military expenditures can allow a larger country to realize more economies of scale and therefore to reach a superior capacity than a smaller or less important one. This would help to explain the observed greater contribution of the wealthier countries in NATO. In 1972, Borchering and Deacon provided an argument why this fact is not contradictory with the pure public good assumption. The reason is that the marginal cost of defense may be a decreasing function of total national population. This leads to the cost in terms of taxes being higher for a less populated country to obtain an incremental unit of defense than for a more populated one. Consequently, the price elasticity of demand for defense is greater in small countries and subsequently leads to an increase in the substitution between military expenditures and other public expenditures, explaining the reduced financial efforts of smaller countries in the framework of an alliance.

These two explanations seem relatively close in their logic; nevertheless, they are dependent on two different assumptions concerning the contribution of members: the economies of scale argument is evaluated by the share of military spending in GNP, whereas the elasticity of demand by per capita spending for defense. The consequences of these assumptions cannot be neutral. Since the share of military spending in GNP measures the percentage of output devoted to defense, while military expenditures per capita measure the resources each person foregoes to defend their country, the conclusions from these two measures are different. Furthermore, the size of a country

can equally influence its ambitions and preferences: we can observe that the most powerful country in NATO is equally the richest and the most populated. It seems appropriate to evaluate other organizations' defense spending in light of these remarks. Although there does not exist a military alliance comparable to NATO, more countries are trying to find some arrangements or common organization to promote security. Compared to NATO, these structures often have wider objectives such as political stability, regional security or economic development. Therefore, it is instructive to briefly analyze some of these other regional alliances.

3. Regional and Global Principles and the Structure of Organizations after the Cold War

Sandler presents certain useful principles concerning the functioning of alliances or more generally of international organizations. Essentially four of Sandler's principles can serve to highlight the different motivations for choosing the types of structure chosen by the regional organizations analyzed in this section. These principles are:

- It is important to form a club of nations characterized by a restricted number of members sharing the same tastes and the same objectives, instead of aiming for a larger structure, and to gradually and slowly widen the number of member states. This idea seems to describe relatively closely NATO's current strategy.
- It is essential to limit uncertainty and promote security to increase the probability of contributions by member nations and therefore to reduce the number and the extent of free riding by member states. It is well known that economic development and trade are strongly correlated with military agreements and national security, and therefore there is this additional benefit to successful alliances.
- The nation that receives the greatest benefits from its membership in the alliance is generally the one that better ensures the hegemony of collective actions. Looking at various institutions or organizations, the need for leadership often prevails. For example, the Southern African Development Community (SADC) was created in 1980 to counter the ambitions in this region of the powerful South Africa. Paradoxically, it has been critically important in integrating this regional hegemonic country.
- Finally, a clear identification of specific or global benefits (local or regional) permits a better understanding of the alliance, its structure and evolution.

Using these principles and the theoretical framework we have outlined, we next briefly discuss and present data for several alliances.

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