A FORMAL TREATMENT OF THREATS:
A NOTE ON THE ECONOMICS OF DETERRENCE

BY

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1 INTRODUCTION

Recent papers on the ‘economics of war, peace and the defence sector’ deal with the discussion of and research into the need for external security and the waging of war within a utility framework. This analytical approach differs from the traditional economic theory of the war sector. Economists in general have concentrated on the problem of how to produce an exogenously determined level of military security at minimal cost (Hitch and McKean 1960, p. 2; Becker 1977, pp. 15–20).

This paper adopts the new way of thinking since it conceptualizes the processes of military deterrence and economic warfare via a utility model. It addresses the question of how a utility maximizing international decision unit (a government, a country, an alliance, etc.) may opt for behaviour that antagonizes the world community and how this choice will be influenced by policies pursued by other countries. The model offers an extremely simple characterization of the international environment, since it pertains only to a ‘sender-receiver’ relationship that leaves no room for dynamic interaction. This supposition, which is rather common in the analysis of threat situations (see e.g. Dekker 1973 and Porter 1979), implies that as a tool for the interpretation of reality, the model has certain limitations.

The article proceeds along the following lines. Firstly, the principal tools and central notions of the analysis will be clarified. After the basic assumptions have been set out, the third section describes the model in detail. Section 4 offers a positive analysis of an international threat situation. Special attention is being paid to the attitude of the threatened party towards risk so as to portray the influence of the implicit value system. Finally, some of the normative conclusions resultant from the utility approach to the threat system will be discussed and confronted with recent analysis of economic and military threats.

Hence the paper offers an attempt to answer both the recent summons of

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Tinbergen (1985a) to include the war theme in economic analysis and the comment by De Haan (1985, p. 1285) that the theory of the international system is seriously hampered by the fact that the interaction between military deterrents and the exchange of civilian goods and services has not yet been analysed satisfactorily.

2 THE SETTINGS

It was Tinbergen (1985b, p. 1273) who drew attention to the fact that ex post cost-benefit analysis of both World Wars leaves a robust deficit and who argued that the spiritual output that should justify all the inputs and the net negative material output of the conduct of war is the winning party’s glory in victory. The technological developments in arms since the invention and use of the atomic bomb having made it unlikely for anyone to survive in or after the next World War, it would seem more reasonable to start from the assertion that at present the only useful purpose of the military establishment that is consistent with the utility maximization concept is to avert wars. According to Siccama (1986, p. 66), for instance, the utility that is produced ex ante by the prevention of war justifies the existence of the defence sector. Clearly the purpose of the world’s superfluous kill potential cannot be revenge ex post; it must be prevention and thus the calculus has to be ex ante.

Consequently, the concept of deterrence, which is an international threat-system, becomes prominent and theory, as I believe, should not relate to efficient allocation of violence, but to skilful non-use of military force (Schelling 1960, p. 9; Volten 1984, pp. 274–275). From this perspective the principal product of the war sector has to be identified as the potential to deliver disutility to the adversary or, as Boulding (1970, p. 11) puts it, the capability of carrying out threats by being able to produce negative commodities or ‘bads.’ It would, however, be neglecting reality to evaluate the external relations of a country from this point of view alone: the international exchange system covers both bads and goods and to influence behaviour one may want to use both stick as well as carrot or a combination of instruments (Dekker 1973, pp. 390–392). It would also be undesirable to confine the analysis of the international system to military variables and to disregard the economic inputs to the international black box (Broekmeijer 1960, p. 35; Waardenburg 1985, p. 179).

Crucial for deterrence is the efficacy of threat. It is typical of strategic threats that if the threat is not credible enough to change behaviour and the punitive action has to be carried out, this is a painful and costly thing to both sides. Consequently, since a threat might be too expensive to be carried out, the question of whether the potential destruction will be realised or not cannot be answered with certainty. More specifically, a threat could best be defined as a

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1 Tinbergen (1985a, p. 175) identifies uncertainty with respect to the targets of opposing countries as a major feature of the international threat system.