

John A. C. Conybeare and Todd Sandler, "The Triple Alliance and the Triple Entente 1880-1914: A Collective Goods Approach" in *American Political Science Review*, Vol. 84, No. 4. (Dec., 1990), pp. 1197-1206

Olson and Zeckhauser provided a model of NATO as a provider of strategic nuclear deterrence. Such deterrence, being a pure public good, has different characteristics than do other products of alliances: conventional defence, for example, is only impurely public. Thus properly modelling an alliance requires considering joint-products, i.e. both public and private costs (and benefits). Doing so produces different implications for free-riding; models that incorporate the private benefits of defence somewhat mitigate Olson's famous doctrine of the exploitation of the strong by the weak in alliances¹.

To test their model, the authors examine the alliance and military spending behaviour of the major European powers leading up to World War I. At that time, of course, there was no nuclear deterrent², and the benefits derived from an international agreement would be expected to be largely – but not wholly – private. In testing their model, Conybeare and Sandler find, as expected, relatively little evidence of free-riding, except that Britain bore most of the burdens of naval defence (a relatively public good) for the Triple Entente, while France as usual failed to pay its keep.

The authors conclude by noting that joint-product models have broad applicability in international relations: they can be used not only for international security but also economic and environmental issues.

¹ Conybeare and Sandler term the public good benefits that a country derives from being in an alliance "spillins."

² Unless H. H. Asquith was particularly coy.