

Preliminary Draft, June 2005, Prepared for
Handbook of Defence Economics, Volume 2 Chapter 10.
We would welcome comments and suggestions

THE ECONOMETRICS OF MILITARY ARMS RACES¹

J. Paul Dunne
University of the West of England
John2.Dunne@uwe.ac.uk

Ron P. Smith
Birkbeck College, London
R.Smith@bbk.ac.uk

1. Introduction
2. Data
3. Theoretical specification
4. Action-reaction models
5. Game theory models
6. Cross-section models
7. Panel models
8. Conclusions

Abstract

This chapter reviews the econometric issues involved in estimating models of the competitive acquisition of military capability. Econometrics involves the synthesis of theory, data and statistical methods thus in reviewing the econometrics of arms races, we will pay as much attention to theory and data as we do to statistical methods. After discussing the choice of data and the theoretical issues in specification, we then examine four types of model: time-series estimation of classical Richardson type action-reaction models, using India and Pakistan as an example; Markov switching estimation of game-theory type models, using Greece and Turkey as an example; cross-section models and panel models.

Keywords

Arms Race, econometric methods, ..

¹ We are grateful for comments on an earlier version from the editors Keith Hartley and Todd Sandler and our co-authors Maria Garcia-Alonso and Paul Levine.