

Future Research Opportunities

The research performed in this project has opened up many possibilities for the future. Here are some suggestions for future research projects that could extend these findings and develop further their policy implications.

- (1) The effects of dropping the assumptions on which the allocation model is based, particularly the second list, should be assessed. It seems unlikely, but it is possible that some of the conclusions given here do depend crucially on these assumptions.
- (2) A useful extension of the allocation model would be the structural incorporation of concealment effort into the model. It is at present difficult to assess the importance of an inspectee's ability to adjust his effort to camouflage violations in determining the level of those violations in the first place.
- (3) Another extension of the allocation model which would be extremely valuable in putting the findings into perspective is the development of a non-zerosum (i.e., not strictly competitive) model of an arms control treaty, in which this zerosum (strictly competitive) model would be embedded.
- (4) Agency theory is a rich field. The agency theory model defined in this research is only one possible link between agency theory and arms control. Other formulations within the agency theory context can be explored.
- (5) Financial auditing as an example of hidden-information agency model can be linked to verification in arms control. Tools and methods used in auditing of financial statements can be applicable to verifying arms control treaties.
- (6) There is a great deal of scope for incorporating additional features into the multilateral game model. For example, consideration can be given to
 - (i) the addition of a parameter providing a penalty or benefit for compliance without false alarm.
 - (ii) incorporating inspections (of various types) explicitly. In addition to making the decision more complex, this would permit an assessment of the roles of other types of benefits and penalties.
 - (iii) allowing the benefits and penalties for violation by a particular player to be dependent on whether other players have violated or not. For example, the penalty for violating may be less if another player is also violating.
 - (iv) allowing a range of possible violations, from minor to major.