Abstract

This dissertation considers public policy in situations where sanctions are used to affect individuals' behavior. Most real world sanctions occur in response to the individual's behavior only with a certain probability, and sometimes the probability is not precisely known. Each chapter addresses an unanswered policy question related to this topic.

The first chapter characterizes optimal criminal punishments when there are multiple interrelated crimes. Optimal punishments are functions of the extent to which related crimes are complements or substitutes weighted by their relative harms to society. This insight applies more generally to Pigouvian taxation with costly administration: in a second-best setting, the optimal Pigouvian tax is partly a function of spillovers to other externality-generating activities. The available empirical evidence on the relationship between index crimes in the United States suggests that tailoring criminal punishments properly to incorporate relationships between crime could reduce the aggregate harm to victims by 3%, or about $8 billion dollars annually, for a given level of enforcement resources. The actual harm reduction of a marginal increase in arrests for an index crime is about 1.5-3 times greater than the harm reduction calculated without these effects.

The second chapter considers the substitution and wealth effects of sanctions. These are relevant to the motivation for punishment. Specifically, these effects are relevant to any discussion of deterrence and incapacitation.

The third chapter considers sanctions which occur with unknown probability, particularly as they apply to auditing in tax systems. Most tax systems do not publish the auditing rate, but most analyses of optimal taxation assume that taxpayers know the auditing rate with certainty. This paper shows that it is not always optimal to obfuscate the auditing rate and characterizes the optimal amount of ambiguity.

Answering each of these questions better defines the socially optimal policy in settings where probabilistic sanctions are used to influence behavior. This dissertation applies these insights to optimal tax systems and the criminal code but the insights can apply to any strategic interaction with uncertainty.