



Carolyn Abbot - *Enforcing Pollution Control Regulation*

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Review by Robert C Palmer*

Carolyn Abbot illustrates that current affairs are hardly devoid of 'environment-related' issues. Such an influx of information has undoubtedly created a greater 'environmental consciousness' amongst many people and awareness that regulatory instruments (such as 'command' and 'control' techniques) are important to limit anthropogenic activities in industry that cause environmental harm. In order to achieve that goal she recognises there is a requirement for cost-effective enforcement of regulatory objectives. She acknowledges the universal fragility of enforcement of contemporary pollution control regulation: detection of non-compliance is rare; the number of prosecutions (and therefore convictions) is minimal; and, more relevant to her argument, penalties are inadequate to act as a deterrent to financial undertakings breaching regulations. The object of her study is to examine which enforcement policies and tools are most cost-effective in achieving a high level of compliance with pollution control regulation to reduce the effects of polluters harmful activities; in conditions where many of the regulated are either unable or unwilling to comply with the environmental standards dictated by the regulations imposed.

She contends that by expanding the 'deterrence theory' put forward by Gary Becker in his late 1960's paper, 'Crime and Punishment: An Economic

* Bristol Law School, United Kingdom.

Approach' (1968) 76 *Journal of Political Economy* 169) better enforcement can be accomplished. In essence Becker's 'simple model of deterrence' hypothesis assumes actors' behaviour can be affected by, what he terms, 'expected penalties.' Theoretically, firms will make a conscious decision whether or not to comply with the law based on the risks and consequences of non-compliance; if the costs of getting caught outweigh the monetary gain of committing an offence then they will be deterred from offending. However Becker's model posits a positive economic approach to the law and confined to criminal offences. Abbot deems such an analysis as transposable to regulatory frameworks and civil actions and subsequently can coax firms into compliance with pollution control regulations.

Owing to its 'perceived limitations', Abbot takes Becker's simple deterrence model and better adapts it to pollution control regulation by adopting a normative approach. Primarily, his model fails to include harm as a term in the equation, as it is a predictive study, and therefore social desirability is not considered. As many environmental offences are the product of socially beneficial activities, the inclusion of harm into a successful formula is essential. Unless harm is incorporated into the formula there is an assumption that all relevant acts are socially undesirable whereas some regulatory contraventions are desirable as they form a social utility. In such situations deterrence of the activities is actually undesirable rather than the relevant act. A balance must be struck between the net cost of harm and the cost of preventing it; thus an 'optimal deterrence' formula that includes harm is preferred to the simple deterrence formula. Further to that, the nature of environmental harm is very different to many other forms of harm; for example, there is a potential for harm to extend across boundaries. Aside from harm, the simple deterrence model does not deal with the reality that the possibility of detection is extremely slim, prosecution rare and penalties are often of little consequence to high profit firms. Although Becker's model does 'generate important and valuable insights into the enforcement process without the need for precise calculation' (page 35) Abbot realises that a more concise model is desirable in pollution control regulation as it integrates other forms of sanctions in alternative forums of justice, for example, the civil courts; palpably there are far more variables to take into account than in a solely

criminal justice model. Her adapted theory attempts to address limitations and weaknesses calculating the cost-effectiveness of deterrence measures, thus improving enforcement of environmental offences by better reflecting the challenges faced by regulators. For example possible solutions, such as increasing the frequency of monitoring and inspection, will potentially achieve a given level of deterrence. This expanded theory forms the basis for her analysis.

Unusually for an academic commentary that adopts a law and economics approach, Abbot recognises that the success of any legislation is dependant upon the contemporary socio-economic political atmosphere. Although she acknowledges that economics is fundamental to pollution control regulation, she observes that while economic welfare is essential to its success, the desire for economic stability cannot overshadow the need for a sustainable environment; there needs to be balance. This can be seen in the boundaries that underline her arguments. For example, whilst economic literature generally endorses an 'optimal level' of compliance she examines 'the extent to which enforcement can achieve a specified benefit' (page 7), in other words a high level of compliance is preferred, owing to the importance of avoiding harm to the environment. In addition her basis of analysis regarding the cost-effectiveness of enforcement and compliance is centred on what type of regulatory intervention will produce specified benefits, in the sense of given regulatory objectives, at the lowest costs.

The monograph develops an analytical framework, based on the expanded simple model of deterrence, to decipher the cost-effectiveness of various enforcement options by focusing on the utilisation of formal penalties. That framework is restricted to criminal prosecution, civil proceedings and formal administrative negative sanctions. She uses the three different political systems in England and Wales, Canada and Australia to compare and demonstrate how better enforcement can be achieved. As both Canada and Australia are federal political systems (in which laws are made at federal and state/provincial and, in Australia, Commonwealth levels) they are interesting for comparison with the system of regulation in England and Wales. All three countries have relied on 'command and control' regulation for traditional

industrial polluting activities for decades (and the study concentrates this area). In addition all three countries rely heavily on *effective deterrents*, as prosecution is viewed as a 'last resort', owing to the preferred persuasive and educational approach to regulation. Despite these similarities, there are distinct differences between the countries, particularly regarding sanctions. It is the cost-effective utilisation of those sanctions to deter regulatory non-compliance that Abbot's contentions are directed. The stage is therefore set for a valuable critique of the renowned inadequacy of current pollution control regulation. Abbot's main conclusion regarding improving deterrence (and thus enforcement) is to expand the deterrence framework by providing regulators with a 'well-equipped enforcement toolbox' (page 254), which is cost-effective and capable of supporting regulator's chosen strategies.

Abbot's book acknowledges that whilst economic factors are essential, even ubiquitous, in environmental law, environmental protection is the paramount societal requirement; she therefore makes steps towards putting the economy and the environment on a level playing-field. The economy and the environment are venerable adversaries as environmental protection is generally converse to economic efficiency. Bearing in mind most influential economic theory was conceived prior to modern environmentalism and thus did not consider environmental protection during its conception, this monograph is an example of how environmental protection can be amalgamated into existing economic equations.