

**REDUCING THE RISK OF POLICY FAILURE:**

**CHALLENGES FOR REGULATORY COMPLIANCE**

Organisation for Economic Co-operation and Development

Copyright OECD, 2000. All rights reserved.

## FOREWORD

The work of the Public Management Committee (PUMA) on regulatory reform -- built over ten years -- has provided substantive input and other extensive support to the development, organisation, and policy direction of the regulatory reform programmes in OECD Member countries. PUMA's emphasis is on *regulatory quality* --- combining both *good regulation* where needed to protect health, safety, and the environment, and to enhance the functioning of markets, and *deregulation* where free markets work better. The concept of quality regulation was the primary basis for policy recommendations that gained the support of all Member countries in the *1997 OECD Report to Ministers on Regulatory Reform*.

Regulatory reform is an innovative and fast-moving field. The PUMA work programme on regulation has focused on helping governments develop new capacities and identify best practices for improving the quality of their regulatory decisions. The intent is to establish a longer-term basis for efficient and responsive regulation by changing incentives, capacities, and cultures in public sector institutions, based on market, juridical, and public management principles.

The PUMA work on regulation is overseen by the *Regulatory Management and Reform Group* of the Public Management Committee. The Group is unique in the OECD in bringing together policy officials responsible for cross-cutting and horizontal regulatory reform policies, and hence has a key role in influencing the work of the Organisation in this area. The Group developed the *1995 OECD Recommendation on Improving the Quality of Government Regulation*, which has been used by many countries as the basis for new disciplines on the use of regulation. The PUMA work responds directly to their needs and integrates their expertise into the OECD-wide programme.

The work on regulatory compliance is intended to assist Member countries in improving the effectiveness and efficiency of public policies carried out by regulation and alternative policy tools. The OECD Working Party on Regulatory Management and Reform reviewed in June 1999 and in November 1999 a draft report, "The State of Regulatory Compliance: Issues, Trends and Challenges". In the report, the Public Management Service (PUMA) reviewed major issues with respect to regulatory compliance and catalogued innovative approaches to improve compliance. A number of Member countries submitted comments and cases for inclusion in the report. This is the final version of the report. It was prepared by **Christine Parker**, University of New South Wales at Sydney, under the direction of **Kirsi Kuuttiniemi**, PUMA, and finalised for publication by **But Klaasen** of the Dutch Ministry of Justice and **Jefferson Hill** of the US Office of Management and Budget. The Head of the Programme on Regulatory Reform is **Scott H. Jacobs**.

The papers in this series are published on the responsibility of the Secretary-General of the OECD. The views expressed in the papers are those of the authors, and neither commit nor necessarily reflect those of the governments of OECD Member countries.



## TABLE OF CONTENTS

REDUCING THE RISK OF POLICY FAILURE: CHALLENGES FOR REGULATORY COMPLIANCE .....	1
FOREWORD.....	3
EXECUTIVE SUMMARY .....	7
CHAPTER 1 INTRODUCTION.....	9
1. REGULATORY COMPLIANCE PROBLEMS: A CASE FOR REGULATORY REFORM.....	9
2. REGULATORY COMPLIANCE AND POLICY EFFECTIVENESS .....	11
CHAPTER 2 COMPLIANCE FAILURES .....	13
1. NON-COMPLIANCE RELATED TO LACK OF REGULATORY <i>KNOWLEDGE</i> OR COMPREHENSION BY THE TARGET GROUP .....	14
2. NON-COMPLIANCE RELATED TO THE <i>WILLINGNESS</i> OF THE TARGET GROUP TO COMPLY WITH THE RULES .....	16
3. NON-COMPLIANCE RELATED TO THE <i>ABILITY</i> OF THE TARGET GROUP TO COMPLY WITH THE RULES .....	20
CHAPTER 3 INNOVATIVE STRATEGIES TO IMPROVE COMPLIANCE AND REGULATORY EFFECTIVENESS .....	25
1. INNOVATIONS IN THE DESIGN PHASE.....	25
1.1. Problem identification and the use of non-regulatory instruments.....	25
1.2. Government regulation that maximises voluntary compliance .....	31
2. INNOVATIONS IN THE IMPLEMENTATION AND ENFORCEMENT PHASE .....	34
2.1. Rewards and incentives for high/voluntary compliance.....	34
2.2. Nurture compliance capacity in business .....	37
2.3. Targeting for low compliance.....	38
2.4. Restorative justice when voluntary compliance fails .....	41
2.5. Responsive enforcement when restorative justice fails .....	43
CHAPTER 4 TOOLS FOR COMPLIANCE-ORIENTED REGULATION .....	44
1. TOOLS FOR <i>EX ANTE</i> EVALUATION: IMPACT ANALYSIS OF COMPLIANCE ..	45
2. TOOLS FOR <i>EX POST</i> EVALUATION: MONITORING COMPLIANCE TRENDS ..	49
3. RESULTS-ORIENTED ENFORCEMENT MANAGEMENT .....	51
CHAPTER 5 SUGGESTIONS FOR RESULTS-ORIENTED POLICY .....	55
1. RESULT-ORIENTED POLICY DESIGN.....	55
2. COMPLIANCE-ORIENTED REGULATORY DESIGN .....	56
3. EVALUATE REGULATORY EFFECTIVENESS .....	56

ANNEX: SUMMARY OF SCHOLARLY LITERATURE ON REGULATORY COMPLIANCE .....	65
1. INTRODUCTION: TWO MEANINGS OF COMPLIANCE.....	66
1.1. Introduction .....	66
1.2. Compliance 1: Description and explanation of obedience of target populations to regulation .....	66
1.3. Compliance 2: A co-operative, persuasive style of regulatory enforcement strategy .....	66
1.4. Outline of this review .....	67
2. REASONS FOR COMPLIANCE: DETERRENCE AND OTHER EXPLANATIONS .	68
2.1. The traditional deterrence approach .....	68
2.2. Problems with simple deterrence theory .....	68
2.3. Bounded rationality .....	69
2.4. The effects of negative publicity .....	69
2.5. Informal sanctions and shame .....	70
2.6. The significance of maintaining legitimacy .....	70
2.7. Co-operation and trust .....	71
2.8. Effective motivations for compliance vary among people and contexts .....	73
2.9. Summary .....	73
3. COMPLIANCE AND MIXES OF REGULATORY STRATEGIES .....	73
3.1. A more holistic, pragmatic and outcome-oriented approach to understanding compliance .....	73
3.2. Pyramids of regulatory strategies .....	74
3.3. Regulatory instrument mixes .....	75
4. CURRENT AND EMERGING THEMES .....	76
4.1. Introduction .....	76
4.2. Regulatory pluralism and regulatory space .....	76
4.3. Internal corporate compliance systems.....	78
4.4. Incentives for compliance systems and compliance leadership .....	80
4.5. The role of third parties, civil society and markets in regulation .....	81
BIBLIOGRAPHY .....	85

## EXECUTIVE SUMMARY

A key determinant of government effectiveness is how well regulatory systems achieve their policy objectives. Rapid increases in regulation and government formalities in most OECD countries since the 1970s have produced impressive gains in some areas of economic and social well-being, but too often the results of regulation have been disappointing. Dramatic regulatory failures tend to produce calls for more regulation, with little assessment of the underlying reasons for failure. Though there is little hard evidence, a growing body of anecdotes and studies from OECD countries suggests that inadequate compliance underlies many such failures. This is a common but little understood form of regulatory failure.

In recent years, governments have increased their efforts to examine how they can achieve policy objectives more cost-effectively through better regulation or different mixes of policy tools. The OECD published in 1993 a report on “Improving Regulatory Compliance: Strategies and Practical Applications in OECD Countries,” that opened the OECD’s discussion of the issue.

- This new report is an overview of emerging issues for regulatory compliance, and focuses on assessing the level of compliance with regulations by target groups, and possible explanations for why compliance levels are low or high. Explanations for the level of (non-) compliance fall into three categories:
  - The degree to which the target group knows of and comprehends the rules.
  - The degree to which the target group is willing to comply – either because of economic incentives, positive attitudes arising from a sense of good citizenship, acceptance of the policy goals, or pressure from enforcement activities.
  - The degree to which the target group is able to comply with the rules.

Government actions to promote regulatory compliance must take each of these into consideration.

But even full compliance with a specific rule will not result in the achievement of regulatory objectives if the rule’s underlying design is flawed. Slavish adherence to regulatory details by the target group will not achieve the regulatory objectives if the policymaker did not choose appropriate policy instruments. The traditional regulatory approach of establishing standards of behaviour and legal enforcement mechanisms is not the sole means for governments to influence the behaviour of citizens and enterprises and may not be the most effective. In order to achieve regulatory objectives, regulatory policymakers need a clear understanding of the nature of different policy instruments, of the habits of the regulated target group, and of the regulatory context, to achieve regulatory objectives.

A common assumption is that the target group will be aware of, and understand how to comply with a rule when it is published. However, rapid increases in the complexity and volume of new regulations can make this basic assumption unrealistic. The responsibility of policymakers does not end with publication of the rule. New rules may need to be accompanied by information campaigns to ensure that they are brought to the notice of and made comprehensible to the target

group. A focus on the feasibility of compliance is also needed. For small businesses in particular, the burden of assimilating and complying with many complex and technical rules can be unreasonable and undermine confidence in regulators and the regulatory structure. Governments have a clear long-term interest in maintaining positive attitudes toward the regulatory system among citizens and businesses, since these attitudes largely determine the level of “voluntary compliance”. Enforcement cannot substitute for low levels of voluntary compliance. In the longer-term, widespread non-compliance will undermine respect for the rule of law.

Work to support good compliance outcomes should begin at the regulatory design stage. To date, while many Member countries employ various kinds of risk and impact analysis methods, few conduct *ex ante* evaluation of compliance factors. This report discusses some promising methods developed in Member countries that can help improve the likely level of future compliance. These methods demonstrate that, by enhancing a range of contributing factors, policymakers are able to develop and implement more realistic and compliance-friendly regulatory designs.

Monitoring compliance trends should also be a key part of *ex post* evaluation programmes for existing regulations. Many countries collect data that can be used to calculate compliance rates in the taxation area and to assess the impact of regulatory interventions on compliance. However, most governments find it difficult to collect aggregate and systematic data on compliance trends in other policy areas where quantitative outcomes are more difficult to measure. Monitoring compliance is a relatively new activity in Member countries; there is little evidence at present that the results of compliance monitoring are used to modify ineffective policies and make enforcement more effective. It is nevertheless encouraging that a growing number of inspection bodies acknowledge the importance of collecting reliable compliance data.

Using compliance data to improve the effectiveness of enforcement activities means that regulatory agencies need to shift away from traditional performance measures, such as their own level of activity (*i.e.* measuring inputs). Instead, regulatory agencies need to shift towards output measures, such as environmental results, health effects, declines in injury rates, and behavioural outcomes that impact more directly on social welfare.

The main conclusion of this report is that awareness of compliance problems is growing among Member countries, but that action to improve compliance is unco-ordinated and unsystematic. Improving regulatory compliance requires increased attention to all elements of the chain of government action – from problem definition to compliance monitoring. Those involved throughout the process of developing and enforcing regulations need to be aware of the interdependent nature of their actions, and the need for consistency and co-ordination. Bringing about compliance-friendly regulation requires an integrated strategy.

The challenge for governments, not only in developing regulations but all policy instruments, is to move toward more results-oriented policies. Regulatory drafting, implementation, monitoring, and enforcement should be designed to maximise the potential for target groups to achieve substantive policy goals.

## Chapter 1

### INTRODUCTION

#### 1. REGULATORY COMPLIANCE PROBLEMS: A CASE FOR REGULATORY REFORM

An important criterion for the success of regulatory reform is whether regulatory systems accomplish their policy objectives. Despite a massive increase in regulation and government-imposed formalities in most countries since the 1970s, results have too often been disappointing. This has prompted most governments to examine how they can achieve their policy objectives more cost-effectively through better regulation and different mixes of policy tools. This expansion of national focus is reflected in the OECD approach to regulatory reform. In the 1990s the focus of regulatory reform at the OECD has turned from *deregulation* to *regulatory quality management* – improving the efficiency, flexibility, simplicity, and effectiveness of individual regulations and non-regulatory instruments.<sup>1</sup> Regulatory reform is now entering a third phase – *the management of regulation* – to improve the total impact of regulatory systems in achieving their social and economic goals.

There is no generally accepted definition of regulation applicable to the very different regulatory systems in OECD countries. In the OECD work on regulatory reform, regulation refers to the diverse set of instruments by which governments establish requirements for enterprises and citizens. Regulations include laws, formal and informal orders, subordinate rules issued by all levels of government, and rules issued by non-governmental or self-regulatory bodies to whom governments have delegated regulatory powers. Box 1 explains different types of regulation and defines regulatory reform.

#### Box 1. What is regulation and regulatory reform?

Regulations can be divided into three categories:

- *Economic regulations* intervene directly in market decisions such as pricing, competition, market entry or exit. Reform aims to increase economic efficiency by reducing barriers to competition and innovation, often through deregulation and use of efficiency-promoting regulation, and by improving regulatory frameworks for market functioning and prudential oversight.
- *Social regulations* protect public interests such as health, safety, the environment, and social cohesion. The economic effects of social regulations may be secondary concerns or even unexpected, but can be substantial. Reform aims to verify that regulation is needed, and to design regulatory and other instruments, such as market incentives and goal-based approaches, that are more flexible, simpler, and more effective at lower cost.
- *Administrative regulations* are paperwork and administrative formalities – so-called “red tape” – through which governments collect information and intervene in individual economic decisions. They can have substantial impacts on private sector performance. Reform aims at eliminating those no longer needed, streamlining and simplifying those that are needed, and improving the transparency of application.

*Regulatory reform* is used in the OECD work to refer to changes that improve regulatory quality, that is, enhance the performance, cost-effectiveness, or legal quality of regulations and related government formalities. Reform can mean revision of a single regulation, the scrapping and rebuilding of an entire regulatory regime and its institutions, or improvement of processes for making regulations and managing reform. Deregulation is a subset of regulatory reform and refers to complete or partial elimination of regulation in a sector to improve economic performance.

Source: OECD (1997), *The OECD Report on Regulatory Reform*, Paris.

This paper focuses on all types of regulation that establish behavioural norms for a target group. The target group can be society-wide or a specific group within society, such as car drivers, farmers, or small enterprises. These regulations are generally promulgated and maintained because they are expected to achieve concrete policy objectives that will increase the quality of life in society as a whole – by, for example, improving environmental quality, human safety and health, or consumer protection. **Chapter 2** of this report outlines how regulatory failures can stem from failures of regulatory design and implementation. **Chapter 3** documents case studies in OECD countries of compliance failures and the effectiveness of compliance-oriented regulatory innovations to overcome those failures. **Chapter 4** outlines practical tools for compliance-oriented regulation that have been used in OECD countries. **Chapter 5** suggests preliminary principles for results-oriented regulatory policy. Some information in this report has been obtained through a request for information from the Public Management Service to members of the OECD Working Party on Regulatory Management and Reform.<sup>2</sup>

Although there is little hard evidence, a growing body of anecdotes and studies from OECD countries suggests that many rules “on the books” fail to elicit sufficient compliance to achieve their objectives. Evaluating and taking steps to avoid potential failures of regulatory compliance should therefore be an integral part of regulatory reform. Improving compliance involves a detailed understanding of the context in which regulation operates. One analyst has written:

*Regulation refers to sustained and focused control exercised by a public agency over activities that are socially valued. The reference to sustained and focused control by an agency suggests that regulation is not achieved simply by passing a law, but requires detailed knowledge of, and intimate involvement with, the regulated activity.<sup>3</sup>*

If a government wants to improve regulatory compliance, it must understand what the target group is doing in real life and use that understanding to inform regulatory design. Policymakers and regulators must develop a sophisticated view of the population of individuals and organisations targeted for regulation, including such factors as:

- The characteristics of the market place.
- How the individual organisations are structured and make decisions.
- What incentives are likely to motivate both the affected individuals and organisations to comply with the regulation.
- The obstacles to their compliance.

The degree to which a target group complies with a regulation is based on how various characteristics of the target group interact with the design and quality of the regulation. In this context, a regulation can be seen as one component of a larger structure whose effect is to create incentives for private actors to behave in certain ways. This is often difficult to do when governments compete against very powerful institutional, market, and cultural incentives.<sup>4</sup>

Regulation that is ineffective in meeting its objectives can be just as damaging to government, businesses and consumers, as no regulation or over-regulation. Systemic failures of compliance (that is, widespread and durable non-compliance) are failures of public governance that devalue regulatory instruments and ultimately break down the credibility of government and governance under the rule of law. Businesses and the public expect governments and regulators to be able to demonstrate that regulatory systems are designed to be effective. Of necessity this requires attention to levels and trends in compliance. Nevertheless, the picture of compliance trends in OECD countries is very hazy due to a lack of empirical evaluations of the effects and performance of regulatory systems.

Achieving full compliance is not always possible, at least at reasonable cost, and governments will almost always have to be satisfied with “a reasonable extent” of (non-)compliance. There is no general answer to the question of what is a “reasonable extent” of non-compliance because each policy field has its own specifications, differences, and sensitivities. To define an acceptable level of non-compliance is context-dependent, and depends in part on the nature of the risks arising from non-compliance. Non-compliance is, for example, more alarming in the nuclear energy industry than in most other policy areas. First, in order to decide upon an acceptable level of non-compliance one must be aware of the severity of non-compliant behaviour, or the damage that non-compliant behaviour causes and the extent to which non-compliance influences achievement of policy objectives. Second, one should define clearly as a matter of social policy what kinds of behaviour are considered to be “serious offences”. Third, the impact of public opinion can redefine the answers to the first two questions. A non-compliance rate can suddenly become a problem, even though the same level of non-compliance may have existed and not have been seen as a problem for years previously. For example, governments often react with additional enforcement efforts when isolated cases of non-compliance reach the national newspapers, even if there is no knowledge of the extent of non-compliance. However, media attention may also remedy an information gap for governments.

## 2. REGULATORY COMPLIANCE AND POLICY EFFECTIVENESS

Regulatory compliance in this report refers to *obedience by a target population with regulations*. Why do people obey any rule? Several conditions are needed. The first condition is that the target group has to be *aware of the rule* and *understand* it. For example, lack of clarity in a rule may bring about unintentional non-compliance. Second, the target group has to be *willing to comply*. Economic incentives can motivate compliance. A strong enforcement programme can discourage non-compliant behaviour. The third condition is that the target group is *able to comply*. For some regulations, implementation of the policy should include activities such as the provision of necessary information and other technical support. If any one of these conditions is not met, non-compliance occurs. In order to ensure regulatory compliance, policymakers should direct their quality control activities not only to the drafting and publishing of a rule, but also to ensuring that the three conditions are met.<sup>5</sup>

*Compliance with a rule* is not always the full test for determining the effectiveness of regulation in achieving its goals. Full compliance with a rule may not accomplish the desired outcome. For example, full compliance may be so costly that it causes more damage than it remedies (*e.g.* if the costs of compliance are so great that they drive legitimate enterprises out of business). Full compliance may be possible but not adequate to achieve the desired objective (*e.g.* if the rule mandates a particular technology that does not accomplish the intended goal). The underlying problem to be solved was not understood well enough to identify the right solution. In evaluating the outcomes of regulation the policymaker should consider that *regulatory compliance* is important, but is not the only factor that determines policy effectiveness. The substantive achievement of regulatory objectives also depends on sound problem identification, full diagnosis of the factors and institutional incentives underlying the problem, the choice of policy instruments, and implementation. Analysis of both rule compliance and other factors that determine the policy effectiveness can help pinpoint the ways in which regulatory design can be improved.

**Box 2. The three necessary conditions for compliance**

Reasons for non-compliance can be found at three different levels:

- The degree to which the target group knows of and comprehends the rules.
- The degree to which the target group is willing to comply – either because of economic incentives, positive attitudes arising from a sense of good citizenship, acceptance of policy goals, or pressure from enforcement activities.
- The degree to which the target group is able to comply with the rules.

At each of those three levels governments should employ a mix of activities to ensure that its policy will take effect:

- Communication with the target group to inform it about its rights and duties and to explain the rules.
- The use of many kinds of policy instruments (taxes, prohibitions and subsidies for example) to influence the behaviour of the target group, backed up with a variety of enforcement activities (such as inspections and sanctions).
- Adequate implementation to make the policy workable in practice, which means that governments have to ensure that the necessary information is provided to the target group and other technical facilities or mechanisms are taken.

At each of the three levels, failures can make government policy ineffective.

*Results-oriented regulatory policy* refers to regulatory development is designed to ensure that maximum compliance with regulation, will accomplish substantive policy goals at lowest cost. It seeks to leverage government resources to avoid potential compliance failures that undermine substantive achievement of policy objectives. Regulatory compliance is not automatic. Regulation that is effective at achieving objectives has usually been designed with an eye to accomplishing substantive outcomes. Policymakers need to understand and take account of the individual characteristics of the target group, including how they can reasonably be expected to respond to rules and government enforcement strategies and both their internal and external incentives to comply with regulatory objectives. The design of results-oriented policy instruments presupposes working procedures in which the policymaker carefully pays attention to both process and “policy surroundings”.

**Box 3. Definitions of regulatory compliance and results-oriented regulatory policy**

**Regulatory Compliance:** Obedience by the target population(s) with regulation(s).

**Compliance-Oriented Regulation:** Regulation that is designed to achieve a high level of obedience by the target group.

**Results-Oriented Policy:** Policy that is designed to improve substantive policy outcomes; *i.e.* where regulatory drafting, implementation, monitoring, and enforcement are designed as an integrated whole to maximise the potential for target groups to achieve substantive regulatory goals at lowest cost.

## Chapter 2

### COMPLIANCE FAILURES

Regulation that fails to elicit an adequate level of compliance not only fails to meet its underlying policy objective, but also:

- Creates unnecessary costs through fruitless administration and implementation.
- Postpones the achievement of the policy objective.
- Erodes general confidence in the use of regulation, the rule of law, and government in general.
- Cumulatively leads to the undermining of other regulations and regulation itself, which can lead to a vicious cycle in which more and more rules are promulgated while public confidence in government regulation lessens and compliance outcomes become worse.

While many regulations have dramatically improved social welfare in many areas,<sup>6</sup> many failures in compliance exist. An earlier OECD report identified eight causes of non-compliance from the point of view of those targeted:

- Failure to understand the law.
- Collapse of belief in law.
- Procedural injustice.
- Costs of regulatory compliance.
- Deterrence failure.
- Incapacitation of those regulated.
- Failure of persuasion.
- Failure of civil society.<sup>7</sup>

This report examines reasons for non-compliance by analysing regulatory design from the point of view of regulators. Factors that can result in non-compliance are listed below and organised according to the three categories from Box 2: knowledge, willingness, and ability to comply. This list is based on examples and experiences from Member countries. For a clear presentation, failures of regulatory design that are not directly related to compliance with a rule, such as insufficient problem diagnosis or failures in the choice of policy instruments, are also listed under the heading of “ability to comply”.

In addition, crosscutting issues can amplify regulatory non-compliance. For example, governments often fail to design regulation taking into account the particular characteristics of small

and medium-sized enterprises (SMEs). Similarly, different administrative and national cultures can have different impacts on compliance. Boxes 5 and 6 illustrate how these factors can have confounding impacts on compliance through the regulatory process.

It should always be remembered, however, that most businesses regularly comply with laws despite a variety of regulatory failures on the part of government. This level of “voluntary” compliance within society, which is ultimately based on trust in government, is a valuable asset for regulators that should not be taken for granted. Regulatory failures that undermine public trust in government are likely to have wider, longer-term implications reducing the effectiveness of government as a whole. In other words, voluntary compliance is a public good that is over-exploited and undervalued by public administrations, much as a fishery may be over-fished by individual fishermen.

## **1. NON-COMPLIANCE RELATED TO LACK OF REGULATORY KNOWLEDGE OR COMPREHENSION BY THE TARGET GROUP**

*Requirements are too complex to know and understand.* People cannot comply with regulations if they do not understand what is required. In regulatory design and development, policymakers often feel pressure to issue new rules or expand existing ones to cover unforeseen circumstances, to close loopholes, and to address new problems. The cumulative effect of reacting to such pressure can lead cumulatively to a loss of simplicity and therefore the loss of the ability in the target groups to understand what compliance with the resulting regulatory structure involves. The German tax law has been famously called, “not a law but a novel.”

- Studies in both Hong Kong and Australia show that few company directors have a sound, or even basic, understanding of their obligations under companies and securities regulation.<sup>8</sup> A multi-country business survey under the work programme of the OECD’s Working Party on Regulatory Management and Reform suggests that, in Sweden, most business people give a low rating to the clarity and simplicity of regulation in the areas of the environment, tax, and employment. This suggests they find it difficult to understand what is required.<sup>9</sup>
- The OECD has previously studied how regulatory inflation is increasing the volume and complexity of regulation in most OECD countries. In France for example, the size of the Official Gazette, where regulations are published, more than doubled from 1976 to 1990. The annual production of new laws increased by 35% from 1960 to 1990, and of decrees by 20 to 25%. The average length of French laws increased from 93 lines in 1950 to over 220 in 1991.<sup>10</sup> Even where an effort is made to reform regulation to make it simpler, easy to understand, and to include the private sector in drafting rules, a “regulatory ratchet” takes effect. This means that, without vigilance, the overall regulatory structure tends to become more technical and unworkable as details are added and loopholes are closed. For example, reforms to occupational health and safety regulation initiated in England and modelled in many other countries were intended to replace many technical rules with a few easy to understand, flexible, general rules. The aim was to facilitate employer self-regulation of occupational health and safety on an individualised site-by-site basis. However, over time many technical and detailed “codes of practice” have developed under the general provisions of the occupational safety and health regulation to address specific hazards and make the law more certain for employers. The proliferation of these codes of practice which have the effect of law means that now many businesses in Britain find them too complex and voluminous to be easily comprehensible.<sup>11</sup>
- The complexity of rules and the overall regulatory structure generally raise the costs of compliance (see Box 6 for examples of how this affects SME compliance rates).

#### Box 4. SMEs and compliance failures

*Costs of Compliance.* SMEs disproportionately bear the burden of costs of compliance due to the differential impact of cost of improvements, and the relationship between cost to company and benefit that is likely to accrue from the investment in compliance by SMEs *vis-à-vis* larger enterprises.

- A World Bank study of micro-firms in Mexico found that the average micro-firm owner faces regulatory costs that consume 17% of revenues (or 32% of value added). Because of the costs of compliance, micro-firm owners tend to operate in a way that avoids the need for compliance by not hiring wage-earning labour (instead of relying on unpaid family members) and not establishing themselves in permanent locations or fixed sites. Regulatory costs would consume 58% of value added if it were not for these strategies. A very low percentage register with ministries such as the Social Security Institute (for social security tax), the Secretariat of Health and Social Assistance, and the federal tax authority; retail trade has the highest compliance rate, perhaps because non-compliance is more likely to be detected.
- Among the Mexican micro-firms, there is however a high level of compliance in relation to payment of the Christmas bonus – a deeply entrenched custom in Mexican society that would probably be complied with even without regulation. This illustrates the way that despite the cost of compliance, a cultural practice factor can also affect compliance rates (in this case in a positive way).
- While few governments have collected data that demonstrates a causal link between costs of compliance and failures of compliance, studies from many OECD countries confirm that compliance costs are generally higher for SMEs, suggesting that there is a higher risk of compliance failure. A study of administrative burdens of compliance in the Netherlands in 1997 found that costs per employee of firms employing 100 or more people are just under one-sixth of the costs for firms employing one to nine people. Similarly, in Sweden a 1997 survey found that the administrative costs of regulation “per employee” are almost four times higher for small firms than for larger SMEs (although the difference is less accentuated if costs are compared on a per turnover basis). This survey also found that the bigger the firms, the more they considered that their economic sector’s level of compliance with regulations was high, suggesting that smaller firms are generally perceived by themselves and others to have lower compliance rates.

*Complexity of Regulation.* Inaccessible and incomprehensible regulation affects small business compliance rates. Many studies show that small businesses cannot keep up with the volume of regulations and regulatory guidance that is produced by many regulatory agencies:

- A study of occupational health and safety compliance in England and Wales found that large companies and companies with safety personnel had little difficulty in comprehending and using information about compliance requirements. These companies were much more likely to have effective systems for ensuring compliance than small companies without safety personnel where management usually lacked the time and resources to read and understand the great volume of regulatory material on health and safety standards.
- Norwegian internal control regulations (Ministry of Local Government, 1991) entered into force on 1 January 1992; these require all businesses and other organisations that employ people, both public and private, to establish and maintain a control system for environmental, health and safety issues. A 1994 evaluation of implementation of the requirement among 100 top managers found a major difference between SMEs and large businesses in their knowledge of regulations: 43% of managers in SMEs – corporations with annual sales of under 100 million NOK (which make up 90% of Norwegian corporations) – had never heard of the regulations. Only 6% of managers in large corporations – with annual sales of over 100 million NOK (which make up 10% of Norwegian enterprises) – had never heard of the regulations. This has had an important impact on overall compliance. Overall only 31% of top managers in small businesses were strongly engaged in implementing the system. 32% were not interested in implementing a system.

*Sources:* OECD (1997), *Small Business, Job Creation and Growth, Facts, Obstacles and Best Practices*, OECD, Paris p. 24; OECD (1998), PUMA Multi-Country Business Survey: Benchmarking the Regulatory and Administrative Business Environment: Draft Report on the Results for Sweden, OECD, Paris, p. 3; Andersen, O. (1996); Genn, H. (1993), “Business responses to the regulation of health and safety in England” 15 *Law & Policy* pp. 219-233; “The Norwegian internal control system: A tool in corporate environmental management?” 3 *Eco-Management and Auditing*, pp. 26-29; Genn, H. (1993), “Business responses to the regulation of health and safety in England,” 15 *Law & Policy* 219-233, pp. 225-226.

## 2. NON-COMPLIANCE RELATED TO THE WILLINGNESS OF THE TARGET GROUP TO COMPLY WITH THE RULES

**Compliance is too costly.** Voluntary compliance is likely to be low when costs (in time, money, or effort) of complying with a rule are considered to be high. Many factors contribute to what may be viewed as unreasonable compliance costs: substantive standards are too high, the transition time for coming into conformity is too short, or the regulation is inflexible. If a rule seems unreasonable, instead of complying, businesses may dedicate more time and money to lobbying regulators to change it or asking for special treatment. Many OECD countries have implemented different forms of regulatory impact analysis to collect data on estimated and actual costs of regulatory compliance.<sup>12</sup> As Box 6 shows, costs of compliance are often disproportionately high for SMEs based on their size and turnover, and may affect SME compliance rates. However, many regulatory impact analyses of compliance costs do not take the next step of identifying what impact, if any, these costs have on compliance rates.

If we assume that in many circumstances business decisions about whether to comply with regulation are affected by the estimated costs of compliance *vis-à-vis* the benefits of compliance, and that cost estimates include the probability of being caught and penalised, then high costs of compliance are likely to reduce compliance rates.<sup>13</sup> For example, the National Tax Board of Sweden recently had to reverse its decision to raise the tobacco tax because the rise in costs resulted in a steep rise in smuggling of tobacco.<sup>14</sup> Faulty or limited impact analyses that do not assess the financial and other incentives created by regulations can lead to non-compliance. It is important for policymakers to have a clear understanding of the economic and social circumstances and incentives faced by target populations to predict the impacts of different regulatory instruments.

**Overly legalistic regulation.** People lose confidence in regulators and governments if they are required to comply with technical rules that do not appear to relate to any substantive purpose.<sup>15</sup> An overly rule-based or “legalistic” approach to compliance can have the same effect, undermining a government’s achievement of substantive policy objectives. Overly legalistic regulation can take the form of:

- Regulatory unreasonableness, or imposition of uniform, detailed and stringent rules in situations where they do not make sense.
- Regulatory unresponsiveness or failure to consider arguments by regulated enterprises that exceptions to the technical rules should be made.

The negative effects of unreasonable and unresponsive legalism on compliance rates have been well established.

- For example, Bardach and Kagan conducted interviews with business people about environmental and occupational safety and health regulation. When business people felt that regulators were being overly legalistic in the application of rules and imposition of fines, these business people would tend to respond by scaling down their efforts to comply with the intent of the law; instead, they would aim to achieve only the minimal level of compliance which the rules required.<sup>16</sup>
- A major Danish study of citizens and attitudes towards compliance with the law found that people are more inclined to see non-compliance with a regulation as acceptable when they feel that the relevant regulation is too petty and restrictive. For example,

Danish law prohibits the use of “weekend cottages” as an all-year residence; non-compliance is a commonly accepted practice among Danish citizens.<sup>17</sup>

- A series of studies of the effects of different inspection styles used by regulators in coal mine safety, nursing home regulation and environmental regulation have shown that reliance on strict, coercive strategies to achieve compliance often breaks down the goodwill and motivation of those actors who were already willing to be socially responsible.<sup>18</sup> An organised culture of resistance can arise from policies perceived to be unreasonable and over-deterrence can chill innovation that might have led to superior outcomes. This is backed up by psychological research:

*When punishment rather than dialogue is in the foreground of regulatory encounters, it is basic to human psychology that people will find this humiliating, will resent and resist in ways that include abandoning self-regulation.<sup>19</sup>*

Overly technical rules can also increase non-compliance by encouraging evasion and creative adaptation. As the technicality and complexity of regulation increases, so does the possibility for less scrupulous players to find loopholes specific rules and engage in “creative compliance”. This is a problem in tax compliance where professional advisors may act as avoidance entrepreneurs.

- In Argentina, as inspections and audits of tax files and other tax enforcement efforts increased since the early 1990s, so did the sophistication of tax non-compliance. After tax compliance surged following the increase in regulatory activity around 1992, compliance decreased again as business and entrepreneurs incorporated more complex evasion mechanisms and less traceable documentation into their tax evasion strategies. A lack of government strategy in deciding which cases to prosecute increased the perceived ineffectiveness of the tax regime and contributed to a general lack of deterrence. This so reduced confidence in the taxation system that the majority began not to comply.<sup>20</sup>
- As in all civil law countries, the legal system of Mexico is based on the concept of certainty. In practice, this implies an effort to develop written legal codes with as much detail as possible. Laws, rather than lower-level regulations, tend to enumerate all the procedures with which a business must comply. The OECD report, “Regulatory Reform in Mexico,” (OECD, 1999) found that reliance on detailed laws did not, however, avoid delegation of broad discretionary powers to regulators. The detailed laws tended to set down a mass of procedural details (“rights and obligations”) rather than substantive criteria for administrative decisions (policy results). In addition, the accumulation of procedures increased the arbitrary nature of administration; such detail made it impossible for a business to be aware of or comply with all the procedural requirements, leaving regulators to decide which rules to enforce, and how. Paradoxically, the Mexican regulatory system seems to be characterised by both too much detail and too much discretion.

A study of nursing home regulation reported that the United States had adopted over 500 federal nursing home standards, supplemented by state standards that doubled or tripled the volume of regulation. Australia had adopted only 31 broad results-oriented standards. For example, a myriad of US rules about treatments, dressings, and recording of pain problems in care plans are replaced by a single “freedom from pain” standard. Yet it was the broad Australian standards that are more reliably rated by inspector teams than the narrow and specific US rules. The 31 broad outcome standards mean that Australian inspection teams can collect evidence and discuss all the standards with each other and with the nursing home staff. As a result, agreed corrective action plans were overwhelmingly

implemented in Australia. The pursuit of reliability in US regulations produced so much complexity and detail that they reduced the performance of the whole. A vicious cycle was seen: disappointment with regulatory performance produced demands to “tighten up” standards, which further worsened the problem of complexity and rigidity.<sup>21</sup> See Box 15 for further details of this study.

***Regulation is at odds with market incentives or cultural practices.*** Compliance rates are lower when regulation does not fit well with existing market practices or is not supported by cultural norms and civic institutions. Of course sometimes the whole point of issuing a rule is to counter an existing market or cultural practice. For example, consumer protection provisions may be necessary to outlaw over-selling in an insurance industry precisely because it has become common practice. However, if a rule cuts across existing culture and fails to build support through education, market incentives, or linkage with institutions of civil society, then it is unlikely to be effective at eliciting compliance.

- Sometimes regulation is introduced or maintained in circumstances in which the purpose is mainly cosmetic and a matter of appearances, and widespread compliance in society is very unlikely. A prominent example is Prohibition in the United States, where even adoption of an amendment to the American Constitution could not change public behaviour that enjoyed public support. Similarly, in the wake of outbreaks of Creutzfeldt-Jakob’s disease, the United Kingdom quickly banned the selling of beef on the bone. However, the serving and eating of beef on the bone were not banned, since no regulation could be acceptably enforced to change the cultural practices of beef eating in British homes.
- Economies in transition face particular compliance challenges due to pre-existing historical, political, and economic factors that mean that regulatory instruments cannot achieve their objectives unless many other factors are changed as well. These factors include historically inefficient methods of production leading to environmental degradation, the loss of trust between citizens and institutions of civil society, budgetary restrictions, loss of key staff, and frequent changes in political leadership that may hamper the development of regulatory legislation and policies.<sup>22</sup> For example, in a communication to the OECD, the Czech Ministry of the Interior noted that it was very difficult for sectoral ministries to focus on compliance initiatives while they are undergoing fundamental reform to harmonise Czech law with EC law and building capacity through recruitment of skilled public servants. New regulations drafted to help create new societies have been ineffective where cultural and market issues are yet not addressed.
- Regulation initially designed with one economic and market situation in the regulator’s mind may not address issues raised by new ways of organising markets. For example, data from Sweden, the United States, Finland, and Australia show that the economic and reward systems associated with outsourcing and the comparatively more fractured and complex work processes associated with sub-contracting have sometimes lead to occupational health and safety problems. Current regulations and compliance programmes which have conventionally focused on permanent employees in larger workplaces do not address the problems associated with increased use of sub-contracting and outsourcing that create market incentives and organisational practices with higher risks to workers.<sup>23</sup>

***Prior consultation with target group failed or never happened.*** Failures of consultation with target populations may cause regulatory failures because regulators may not find out about factors falling into the categories described above, or because lack of adequate consultation may fail to secure

target group support for the proposed regulation. For example, without adequate consultation, regulators may not be able to identify unanticipated costs of compliance, lack of regulatory clarity, or clashes between regulatory requirements and existing cultural/market practices. Effective consultation of the target group involved can be an effective way to inform target populations about the new regulation and the consequences for them. It allows target populations to have an input into the proposed regulation so that they understand why it is necessary and how their concerns have been addressed. This can build in the target group a sense of “ownership” or understanding that will increase commitment to the objectives of regulation. In addition, input to the regulator that is based on real-life experience in the activity being regulated can help the regulator find better solutions. Substantive dialogue between regulators and the target group contributes to a win-win strategy, since dialogue can increase the quality of regulation and ease compliance concerns, which is good for both sides.

***Failure to monitor.*** A rule that is on the books, but not monitored is unlikely to elicit compliance. Random inspections among the target group have the effect of making people and enterprises that are normally law-abiding constantly aware of the existence of enforcement activities and tend to reduce the likelihood of future non-compliance. However, monitoring that is not rigorous enough or not targeted at high-risk areas is less likely to be effective.

- Studies of the effectiveness of occupational safety and health regulatory inspections in the United States and Canada have found that short, superficial inspections that check only the firm’s injury records have little effect on injury rates. But more rigorous, frequent inspections can actually be more significant than high penalty levels in improving business safety performance.<sup>24</sup>
- Governmental fiscal consolidation can lead to reduced regulatory compliance due to budgetary restrictions that reduce the staff available to monitor regulatory compliance. Fiscal consolidation can also lead to more pressure on a policymaker to resolve an issue by promulgating a rule rather than by spending the money to enforce the existing regulatory structure adequately. Simply multiplying the rules on the books without devoting sufficient resources to effective implementation worsens the situation.
- Failures in monitoring can be particularly problematic for achieving compliance when regulators have relied on self-regulation or co-regulation with the aim of increasing voluntary compliance and maintaining regulatory flexibility in a particular area. Insufficient monitoring of compliance in this case can reduce compliance considerably. A US study of US company codes for ensuring suppliers from abroad do not use child labour in the apparel industry found that most of the codes did not contain detailed provisions for monitoring and implementation, and that many of the companies did not have reliable monitoring systems in place. It found that monitoring for use of child labour had not been incorporated into pre-existing site visits and other monitoring strategies for ensuring product quality and schedule co-ordination.<sup>25</sup>

***Procedural injustice.*** Researchers have found that if people feel they are treated unfairly by the government or a regulatory agency, then they will often respond by refusing to comply with regulatory requirements. People who believe they have been or will be dealt with fairly by a regulatory system are much more likely to comply with its requirements, whatever they are, than those who believe the system is not fair. Regulatory agencies perceived as unfair during inspections and enforcement are likely to elicit lower compliance. A 1992 study in the United States found that taxpayers that reported having heard accounts of others being treated unfairly in the course of audits themselves expressed a disinclination to comply in the future.<sup>26</sup>

***Deterrence failure.*** Regulators can face a failure of deterrence because so many kinds of business rule breaking have high rewards and low probabilities of detection.<sup>27</sup> When fines are not high enough to offset the high profits potentially available from crime (e.g. illegal stock market manipulation can easily net multi-million dollar profits), the government can find itself in a “deterrence trap”. If it imposes a fine large enough to deter, it may bankrupt the firm or at least so deplete the liquid assets of the firm that workers will lose jobs, and plants will not be built.

Additionally, because of limited regulatory agency resources or lack of strategy in monitoring and enforcement, non-compliance may have a low probability of detection and enforcement. The threat of enforcement will not act as a deterrent if people do not believe non-compliance is likely to be discovered or punished.

- For example, recent Australian research shows that there is a widespread view that not paying income tax on cash receipts is acceptable, and that there is a perception there is little likelihood of detection from evading the income tax in this way. Academic studies estimate the cash economy to be between 3.5% and 13.4% of GDP; the annual amount of income tax revenue foregone could be between AUS\$3.9 billion and AUS\$15.1 billion.<sup>28</sup> Communications from OECD countries on compliance issues showed that tax compliance in relation to the cash or black economy is a major focus of research and regulatory initiatives. Recent research by the National Tax Board of Sweden estimated the size of the Swedish black economy to be 3-5% of GDP and that 11-14% of adults are active in the black market, resulting in an estimated tax gap of 9% of theoretical revenue.<sup>29</sup> In Finland, the size of the black economy has been estimated at 20 billion Finnish marks resulting in losses of 13 billion marks to the government.<sup>30</sup> In countries where the proportion of the economy invested in the cash economy is greater, non-compliance will be a greater problem.
- International regulators of intentional oil pollution at sea found that setting an outcome standard (limits on the amount of oil to be discharged at sea) completely failed to elicit adequate compliance levels because it relied on the deterrent threat of inspection discovering non-compliance and punishment. Non-compliance was extremely difficult to monitor on the open seas. Instead an international regime that mandated a certain type of technology for the design of ship ballast made intentional oil pollution more difficult and was much more successful. In this case, monitoring adoption of the defined technology was much easier than monitoring oil pollution at sea. Ship builders and classification societies accepted the new regime and acted as third-party enforcers, or gatekeepers, by not building and not insuring ships without the mandated technology (segregated ballast tanks). The regulatory regime created practical obstacles to non-compliance, using deterrence as a backup, and relied on non-state actors, on whom the operators are dependent and who have no economic interest in avoiding the costs of regulation, to monitor compliance. These processes were reinforced by also requiring flag states or classification societies nominated by them to inspect tankers for required equipment during construction or retrofitting plus regular inspections afterwards, a system that piggybacked on the existing inspection system used by classification societies.<sup>31</sup>

### **3. NON-COMPLIANCE RELATED TO THE ABILITY OF THE TARGET GROUP TO COMPLY WITH THE RULES**

***Failures of administrative capacity.*** Not only should governments rely on good drafting and enforcement practices but they should also devote resources to adequate implementation policies, aimed at making it feasible for the target group able to comply with the rules. Voluntary compliance

levels may be compromised if governments do not ensure that implementation includes the provision of necessary information and other support or mechanisms. For example, a rule that only permits non-polluting construction materials may append a list of complex and technical criteria to define what non-polluting means. The government should also launch an intensive information campaign to explain those criteria, and should see to it that there are enough public laboratories where builders can test samples of building materials. Those actions complete the environment for successful compliance.

***If the problem was clearly understood, objectives could be more effectively attained through other means.*** Governments and regulators sometimes rely through habit upon certain types of regulatory instruments to solve problems, without first adequately defining and analysing the particular problem to determine the most appropriate solution. Too often, the problem itself is defined as “a lack of regulation”. If a government accurately defines the causes of the problem and clearly defines its policy objective, the government can then use the least coercive and most effective means to achieve that objective.<sup>32</sup>

When used appropriately, command-and-control regulation can provide clarity, certainty, and predictability. Perhaps most important, this approach can provide a yardstick that allows the government, the general public, and the regulated firms to know what is required and whether it is being achieved. This is essential if enforcement is to be fair and effective.<sup>33</sup> In some situations, however, an alternative to command-and-control regulations might better achieve policy objectives while taking into account the need to:

- Invoke the most direct means to achieve the desired ends.
- Impose a compliance burden commensurate to the magnitude of the problem.
- Permit cost-effective and cost-efficient enforcement regimes.
- Support competition (unless a clear public benefit can be demonstrated in restricting it).
- Maintain consumer choice.
- Be sufficiently flexible to cope with technological changes.
- Promote innovation in seeking the best way to achieve the objective.
- Be sufficiently flexible to cope with behavioural changes brought on by compliance.
- Be limited to that which is necessary and consistent with the public interest.

The OECD has discussed the advantages and disadvantages of alternatives to government regulation in several previous reports.<sup>34</sup> While alternatives to formal regulation will not necessarily face fewer compliance problems, some alternatives to regulation will prove to be a more effective and efficient means of reaching the desired goal. A continuum of alternatives to government regulation is available to governments. These include economic incentives, self-regulation and voluntary agreements (see Box 5).

Choosing the wrong regulatory instrument to achieve a regulatory objective can arise from national administrative and legal culture. For example, in some countries it is common for issues to be addressed primarily through parliamentary law, whereas in others informal agreements are more frequent. The habitual usage of one form of regulatory instrument may “blind” governments to the superior effectiveness of another instrument in particular circumstances. Conversely, an approach that

is effective in one country may result in resistance and non-compliance in another country where that approach is not suitable (see Box 6).

**Box 5. Advantages and disadvantages of the use of alternatives to government regulation**

Alternatives to regulation can offer several compliance advantages, such as:

- Regulatory and resource burdens on government to achieve compliance may be reduced.
- The regulated community may be more likely to comply with standards in the development of which they have participated or that are more compatible with their own goals and industry conditions.
- Alternatives to regulation can be more flexible in coping with technological, cultural, and behavioural changes among regulated entities.
- These aspects may be especially useful in dealing with issues with international/extra-territorial dimensions in which diversity among the regulated entities is greater.

The potential disadvantages of such strategies are that:

- Alternatives may not be subject to the same transparency and accountability standards as regulation and rules, particularly if progress toward achievement of the public policy goal is not clear, or may have anti-competitive effects in the market.
- Individuals or enterprises may be able to act as free riders on the good faith efforts of others to voluntarily comply by taking advantage of the greater trust or better public image a whole industry receives as a result of voluntary alternatives to regulation.
- Badly designed regulatory alternatives that result in policy failures can delay needed government regulation and result in loss of community trust in the relevant industry and in the government.

*Desired outcomes cannot be achieved through the means required.* Some rules do not describe what is to be achieved, but instead detail the actions that the regulated entity must carry out, which the regulator hopes will produce the desired outcome. While sometimes necessary when results are difficult to measure, regulations of this type are undesirable as a general approach. The prescribed actions may in practice achieve very little, but leave no room for adjustment by the regulated entity. This is related to a failure to identify the exact causal relation between the policy instrument and the regulatory objective. Performance-based regulation, where the desired outcomes are listed without setting out the ways to accomplish them, can have compliance and enforcement problems as well. The problem with this kind of regulation is that it might confront the regulated with outcomes that are impractical and almost impossible to achieve at reasonable cost. This can be the case when regulators do not weigh the benefits against the costs, or do not have a clear understanding of the capacities of the regulated entities.

The regulator may also have too narrow a view, so full compliance may create perverse results. For example, heavy safety regulation on aeroplanes can reduce some risk of air crashes, but if air ticket prices go up, some passengers will switch to car travel, which is much more risky. Because the policy goal was not clear enough – save lives rather than prevent air crashes at any cost – such a safety regulation may cause more deaths than it prevents. In this case, the more costly and apparently safe the regulation, the more perverse will be the outcome.

**Box 6. National legal and administrative cultures**

Different countries have different cultural attitudes toward regulation and different patterns in the use of policy instruments. Instruments that elicit compliance in one country may not necessarily do so in another. Such national differences mean that, to be most effective, mixes in alternatives to regulation will vary in different countries.

- Sweden and the Netherlands are smaller and more homogenous, with deeper corporatist traditions and more highly organised manufacturing sectors compared to most OECD countries. These aspects may make

regulation through voluntary agreements more feasible. The use of environmental covenants in the Netherlands is well-known (see OECD (1999), *Regulatory Reform in the Netherlands*, Paris, p. 131). In Sweden, environmental agencies are organised to deal with each of about 400 regulated industrial facilities on an individual basis. An individual, flexible, integrated permit is negotiated for each one, leaving room for technological and economic variations under the provisions of a very general and flexible general law.

- A variety of taxes, especially environmental taxes, play a major role in Europe in encouraging environmentally responsible behaviour by consumers, governments, and the private sector. In other countries, including the United States and Australia, taxes for environmental incentives are used less often and meet more public resistance.

*Source:* OECD (1996), *Regulatory Reform; A Country Study of Australia*, Paris; OECD (1997), *The OECD Report on Regulatory Reform*, Paris; OECD (1999), *Regulatory Reform in the Netherlands*, Paris; OECD (1999), *Regulatory Reform in the United States*, Paris; Beardsley, Daniel (1996), *Incentives for Environmental Improvement: An Assessment of Selected Innovative Programmes in the States and Europe*, prepared for the Global Environmental Management Initiative, Washington D.C.

Another kind of problem may arise from institutional failures based on the limits of authority of regulatory agencies arising, for example, from jurisdiction over different geographical areas. Pollution of air and water, for example, does not recognise jurisdictional boundaries. This requires that institutions adapt to fit the problem. The Canada-U.S. Great Lakes Water Quality Agreement was designed to resolve these types of problems. It sets common objectives and goals to be achieved for the Great Lakes. An example of successfully dealing with inter-jurisdictional concerns is the work that has been done to reduce phosphorus levels in the Great Lakes, where the co-operation of two federal governments, one provincial, government, and eight state governments was required.



## Chapter 3

### INNOVATIVE STRATEGIES TO IMPROVE COMPLIANCE AND REGULATORY EFFECTIVENESS

The innovations reported below rely on a better understanding of the factors affecting the ability of the target group(s) of regulation to comply, and a corresponding improvement in regulatory design and implementation/enforcement.

#### 1. INNOVATIONS IN THE DESIGN PHASE

##### 1.1. *Problem identification and the use of non-regulatory instruments*

One major obstacle to improving regulatory compliance rates is insufficient information about the nature of the problem that the regulation is supposed to solve. Overcoming this obstacle requires developing data collection mechanisms and methodologies to systematically identify outcomes relevant to the policy goal. A number of the country responses to the 1999 PUMA request for information on regulatory compliance stated that governments find it difficult to systematically collect adequate data and research on rates and causes of non-compliance, except in the tax area. However, where adequate information is collected, it can greatly improve the impact of regulatory programmes on achieving policy objectives. Box 7 sets out how the US Occupational Safety and Health Administration's (OSHA) Maine 200 Programme used information analysis to identify possible targets for inspection and improve compliance in a particular risk group.

#### Box 7. US OSHA's Maine 200 Programme

##### *The compliance problem:*

The Occupational Safety and Health Administration (OSHA), an agency within the US Department of Labor, seeks to protect the life and health of American workers primarily through direct regulation of employers. The regulatory enforcement system does not address the unique hazards of each work site. New standards are constantly being made to apply to all worksites and an adversarial approach is taken to inspections. Yet OSHA has only limited financial resources. It has been estimated that each worksite can expect a random visit once every 87 years on average.

The state of Maine had one of the highest rates of workplace accidents in the United States – 71% above the national rate. Maine OSHA identified three problems with its traditional approach of targeting inspections without regard to worksite conditions at individual establishments:

- The inspections system (which relied on national industry data to identify industries with higher accident rates for targeted inspections) rarely targeted large employers outside of manufacturing, where many injuries occur.
- Once chosen for an inspection, the firm was evaluated only for regulatory compliance with OSHA standards and not worker safety and health outcomes.
- Inspections were designed to place OSHA in an adversarial role, looking for violations rather than working with well-intentioned managers who would have addressed a hazard upon learning of it.

*The innovative solution:*

The Maine OSHA office used workers compensation databases to identify the 200 employers with the highest number (not rate) of injuries and illnesses in their area. Rather than instituting adversarial inspections, OSHA requested their co-operation in improving work conditions by committing to a comprehensive safety and health programme that includes employee participation, self-inspections, identification of worksite hazards, and training programme to reduce and prevent hazards and quarterly reporting to OSHA.

Employers who chose to accept OSHA's request received a significantly lower priority for inspections and higher priority for technical assistance. The others would be targeted for inspection due to their risk prioritisation. All but five of the firms chose to submit adequate health and safety plans. OSHA maintained authority to address serious problems through regulatory enforcement, but this was to be a last resort against recalcitrant employers, not a standard procedure. In this way OSHA sought to leverage its authority and address hazards specific to the work site through a partnership that gives employers and employees ownership of workplace health and safety.

*Results:*

Only 10% of the targeted firms would have appeared on OSHA's inspection list under the traditional method of determining inspections (not including inspections that follow complaints).

- As of December 1995 (nearly two years into the programme), participating firms identified 180 000 hazards and abated over 128 000 of those hazards (in comparison with the 36 780 that OSHA inspectors had discovered and cited in the previous eight years at those sites).
- Total workers compensation claims dropped by 47.3% in those worksites during the programme between 1991 and 1994 (all Maine employers experienced a drop of 27% over the same period).
- At least 320 worksite health and safety committees were established.
- OSHA's traditional inspection approach required the efforts of six to nine inspectors to inspect all large paper plants in Maine. Maine 200 reached roughly 200 firms in a single year through self-assessment combined with traditional enforcement for the few firms who did not agree to establish safety and health programmes.

However there has not yet been sufficient reporting and monitoring to determine the programme's impact in terms of real reduction in injuries and illnesses. The majority of hazards cited arose from violations of existing OSHA regulations rather than identification of new specific hazards. Also employers who have been targeted by OSHA as high-hazard will probably tend to take action to reduce those hazards even without a Maine 200 type programme. Any increase in occupational safety and health can be attributed to both:

- An employers' knowledge that OSHA has selected it for scrutiny.
- The fact that the employer works in partnership with OSHA to develop a safety and health programme.

*Sources:* Chenok, Dan. (1997), US Office of Management and Budget; Sparrow, M. (1996), "Regulatory Reform: Lessons from the Innovations Awards Programme" mimeo, John F. Kennedy School of Government, Harvard University.

If regulatory strategies such as self-regulation and internal management standards are to be used as alternatives to formal rules, then they generally require government input, support, and monitoring to accomplish the policy objectives. Evidence suggests that compliance with purely voluntary efforts is likely to be patchy (see the British OFT example in Box 8) unless the government backs them up with either sanctions or other incentives for compliance. This need not be a legal regulatory sanction or incentive. It could simply be special recognition by means of permission to use a logo (such as the Japanese privacy mark), a preferred status for government contracting, or, as a negative sanction, naming in Parliament or a press release as a company that is out of compliance.

Economic measures such as taxes and tradable rights have the potential to be effective at preventing compliance failures because they are incorporated into normal market transactions, that is, they exploit powerful market forces to achieve a public goal. There is increasing experience to gauge the success of economic instruments such as tradable permits in increasing the achievement of

regulatory goals (this experience is discussed in OECD (1998), *Putting Markets to Work: The Design and Use of Marketable Permits and Obligations*).<sup>35</sup> Where such approaches have been used, experience suggests that their success depends on government monitoring and enforcement of compliance with permit conditions. A promising example is the sulphur dioxide allowance-trading programme in the United States, which has been estimated to reduce the costs of lower emission targets by over US\$1 billion, or 50%.<sup>36</sup>

There is evidence that some self-regulatory programmes (voluntary agreements) have been effective at accomplishing policy objectives:

- One is the Chemical Industry Association’s Responsible Care programme, which started with the Canadian Chemical Producers’ Association, and now operates in 41 countries and reaches around 88% of the global chemical industry.<sup>37</sup> Since 1987 the US chemical industry claims to have used Responsible Care to reduce releases of toxic chemicals to the environment by 49%, reduce disposal in deep wells by 46%, and reduce off-site transfer for treatment and disposal by 56%.<sup>38</sup>

Globally, voluntary agreements are being extensively used to avoid the need for restrictive regulation, especially in the environmental area (see OECD (1999), *Voluntary Approaches for Environmental Policy: An Assessment*”, Paris). Voluntary agreements can be an attractive means to satisfy international obligations to reduce emissions without imposing politically unpalatable and economically damaging regulation or carbon taxes. In 1989, Norway established a network programme for energy saving in manufacturing industries. Today, approximately 600 enterprises participate, mainly 13 trade groups that represent 44% of stationary energy use in manufacturing. The basic obligation is for participants to report energy use. The programme provides information, benchmarking, and consultation. Consultation is subsidised and on a voluntary basis, but requires the establishment of energy plans and supervision in the enterprises. In 1999, state funding for the programme is approximately NOK 8 million (ECU 1 million). In Australia, industry associations initiated the Greenhouse Challenge Programme to avoid the more onerous carbon tax. Well over 100 members, including approximately 80% of the enterprises in the electricity business, are now implementing plans to reduce greenhouse gas emissions which will be audited by government. In these agreements companies undertake to perform “no-regrets” actions (*i.e.* financially justified improvements within the company) to reduce greenhouse gas emissions.<sup>39</sup> In other circumstances, however, self-regulation is not a suitable alternative to regulation because of problems of accountability, lack of transparency, and lack of legal remedies to enforce a self-regulatory code.

Another way for governments and regulators to harness private capacities to achieve regulatory compliance is through encouraging the adoption of *industry standards and internal management systems* to ensure outcomes that accord with regulatory goals. Here, governments enlist the support of internal corporate management (rather than self-regulatory organisations or industries) to achieve regulatory goals in a way that is consistent with individual business goals and innovative capacities (Box 8). An advantage of standards is that, in certain industry sectors, certification to a particular standard may become a condition in day-to-day contracts so that the standard is “enforced” by the market and by third-party certifiers and compliance specialists. For example, the ISO 14000 series of standards for environmental management systems had a huge impact in the European market and prompted the growth of an industry of privately hired certification specialists.

There are many advantages in government encouragement of corporate implementation of internal management standards in preventing regulatory non-compliance.

- This strategy takes advantage of the existing procedures of national and international standards associations for ensuring participation of all affected groups in development of the standard by consensus.
- Standards can be internationally harmonised.
- Processes for developing standards usually involve all affected stakeholders.
- Organisations who wish to utilise a standard can privately pay for accreditation to the standard, therefore reducing the need for government expenditure on inspections.
- Internal management standards can integrate regulatory and business goals in a way that government rule-making by itself cannot. A range of studies suggests that enterprises that adopt environmental management systems can achieve impressive outcomes in terms of environmental performance.<sup>40</sup>
- Enterprises independently certified to a management system can be granted the right to use a mark or symbol to advertise their compliance with the standard to customers and communities. This is a particularly useful way of achieving voluntary compliance with policy objectives by enterprises who stand to gain market or other advantages through improvements in the desirability of their products, and in public image and public trust (usually enterprises involved in the manufacture or sale of end-use products). Box 8 presents examples of this.

One way in which many regulators support alternatives to regulation, such as enterprise codes of conduct and standards, is through voluntary disclosure policies. These are official guidelines issued by regulators as an incentive for companies to undertake effective self-regulation and self-policing. The guidelines usually provide that, if an entity discovers violations of the regulation through the operation of its own internal compliance or self-regulatory system, and reports to the regulator those violations and the corrective action taken, the entity will not be liable for fines and penalties.

- The US EPA will refrain from recommending criminal prosecutions and forego “gravity-based” (punitive) civil fines if a company voluntarily has reported and corrected environmental violations found either through an audit programme (as defined in the policy) or through a satisfactory “due diligence” programme to prevent, detect, and correct violations. (The US EPA’s policy on “Incentives for Self-Policing: Discovery, Disclosures, Correction and Prevention of Violations” (effective from 22 January 1996.))

**Box 8. Use of standards for internal management systems as an alternative to regulation**

***British Office of Fair Trading (OFT) and industry standards for fair practice***

*Compliance problem:* The British OFT recently re-evaluated its programme for encouraging voluntary codes of conduct on the basis that they are not very effective. In 1998 the Office reported that “successive monitoring exercises revealed patchy levels of compliance and fairly widespread ignorance or apathy among traders and the public alike.”

*Innovation:* The OFT is considering replacing its endorsement of certain industry codes of conduct with the encouragement of industry standards for fair practice. Standards would be drawn up under the processes of the British Standards Institution, and all those with a direct interest would participate. A core standard would be applicable to all business and would require that all sectoral standards include low cost dispute resolution systems. To administer the new programme, the OFT proposes creation of a new approval body that would review all applicants, monitor their behaviour, and deal with complaints. In return successful applicants would be able to use a new cross-sectoral quality logo.

*Source:* Office of Fair Trading (1998), *Raising Standards of Consumer Care: Progressing Beyond Codes of Practice*, Her Majesty’s Stationery Office, Great Britain.

***Japan’s Privacy Mark Programme***

*Compliance problem:* Many Japanese enterprises were already taking voluntary action according to the “Guidelines for Personal Information Protection.” However, this was insufficient to cope with the increasing amount of personal information processed by computers due to progress in network technology. Legal regulation was not suitable to solve this problem because of a belief that regulation could inhibit progress in adopting information technology. An effective system also had to be set up in a relatively short time period.

*Innovation:* Japanese firms can receive a “Privacy mark” if they comply with criteria based on requirements for the Compliance Programme on Personal Information Protection established as JIS (Japan Industrial Standards) and guidelines of business organisation modelled on MITI (Ministry of International Trade and Industry) guidelines. JIPDEC (Japan Information Processing Development Centre), a non-profit organisation supported by MITI, is responsible for the certification process. It grants the privacy mark to an enterprise when it is satisfied that an enterprise has a compliance programme meeting standards (or equivalent industry guidelines) and that personal information is in fact appropriately managed based on the compliance programme. The enterprise can then use the privacy mark for two years in contracts, advertising, letterheads, and home pages.

*Source:* <http://www.jipdec.or.jp/security/privacy/pamph-e.html>.

***The Rugmark Foundation***

*Compliance problem:* Child labour, allegedly widespread in the South Asian rug and carpet industry, violates international and many countries’ labour standards. Rugs and carpets are exported to Western nations where consumer concern about child labour is high, but Western governments have no jurisdiction or authority to interfere.

*Innovation:* A coalition of Indian human rights and industry groups together with the United Nations Children’s Fund created the Rugmark Foundation in 1994. Retailers and manufacturers bind themselves to a code of conduct which provides for the replacement of child labour with adult labour and the provision of educational resources for former child workers. Signatories pay licensing fees to the Foundation, which employs monitors to conduct inspections to ensure compliance with the code. Signatories must allow access to all looms for unannounced inspections by these monitors. Signatories who pass their inspections can affix the Rugmark label, a smiling carpet, to their products. Since 1994 more than 260 000 rugs certified with labels have been exported to Germany which accounts for more than 30% of the market.

*Source:* Liubicic, R. (1998), “Corporate codes of conduct and product labelling schemes: The limits and possibilities of promoting international labor rights through private initiatives,” 30 *Law & Policy in International Business*, pp. 111-158.

Another way for governments to recognise and strengthen alternatives to regulation is through combining alternatives, such as standards and self-regulation, with traditional inspection and enforcement regimes. Here compliance with a voluntary standard or self-regulatory programme might exempt enterprises from the normal inspection regime for compliance with legal rules, and grant other special recognition. Box 9 details Mexico's Federal Environmental Agency's (PROFEPA) Environmental Audit Programme. Through this voluntary programme, PROFEPA offers certifications of compliance, exemption from normal regulatory inspections, and special recognition to enterprises that put in place an environmental management and compliance system that meets certain standards and is independently audited. This mix of voluntary implementation of standards, audit under the supervision of the regulator, and regulatory incentives for enterprises that reach certain standards of management and compliance has been found to be more effective in improving environmental problems than traditional regulatory methods in a situation where environmental regulation-making and inspection capacities are not yet adequate to solve environmental problems.

**Box 9. Mexico PROFEPA's Environmental Audit Programme**

***Background – compliance problem:***

Procuraduria Federal de Protection al Ambiente (PROFEPA; set up in 1992) is part of the Mexican Secretariat for Environment, Natural Resources and Fisheries. PROFEPA is responsible for surveillance of industrial pollution, fishery reserves, wildlife and forests, citizen participation in certain communities, and voluntary agreements for environmental monitoring. PROFEPA has various inspection powers, including the power to shut down facilities if there is a serious violation.

- PROFEPA found that the command-and-control approach to environmental regulation was not sufficient to achieve maximum environmental improvement in Mexico because of several factors that contribute to industry reluctance to analyse itself and adapt to environmental reality.

***Innovative solution:***

PROFEPA introduced an Environmental Audit Programme (EAP) to promote industry leadership in voluntary compliance without imposing penalties.

***The audit:***

Environmental audits are conducted by environmental auditors approved by an Evaluation and Approval Committee, made up of professional associations, industrial sector organisations, and education institutions. The Environmental Audit includes methodological evaluation of an enterprise's operations with respect to the pollution they generate and their possible impacts on the environment, as well as the degree of compliance with environmental regulation and international standards of operation. The main objective is to define preventive and corrective measures to protect the environment. Each audit covers the following aspects:

- Normative aspects: emissions to the atmosphere, discharges of residual waters, hazardous wastes management, pollution of soil, noise.
- Non-normative aspects: risk, security, attention to emergencies, training, good engineering practices, optimisation of fuel consumption.

The Environmental Audit includes items not yet regulated but controlled internationally through good engineering practices and issues that must be solved immediately even though they are not yet subject to specific rules.

***The action plan:***

- The audit is used to define a set of preventive and corrective measures ("Action Plans") to achieve total compliance and environmental improvement, including actions such as installation of non-polluting equipment, studies, plans, programmes, and procedures. Action plans include a schedule of actions and times appended to the respective agreement. Often this includes bar graphs depicting dates for initiation and conclusion of each remedial action.

- The action plan is included in an Environmental Compliance Agreement that is signed by PROFEPA and an industry representative. PROFEPA usually visits the site on a quarterly basis to monitor the facility and verify that all commitments accepted and scheduled in the action plan are strictly fulfilled. PROFEPA can impose penalties if an action is not undertaken.

*The benefits for the enterprise:*

- While an enterprise is participating in EAP, it is excluded from normal inspection activities (although it would still be inspected if a regulatory complaint were presented or a contingency occurred), and will not suffer penalties for identification, reporting, and correction of problems, provided that PROFEPA is notified and scheduled solutions and control and prevention measures are implemented. PROFEPA has also made agreements with other authorities to avoid inspections of enterprises under an audit.
- Once the enterprise has concluded its action plan, then it is recognised with a Clean Industry certificate by which PROFEPA credits that the enterprise is in total compliance with national applicable legislation. The certificate remains in force for two years, and can be endorsed for two more years with results of revision of compliance. The certificate is a public relations tool and also entitles the enterprise to special fiscal treatment.

*PROFEPA's role:*

The government plays a key role in this programme: PROFEPA promotes entrance to the voluntary programme and establishes compulsory terms of reference for the audit. It supervises performance of the audit and communicates to industry representatives all the actions to be performed in order to correct the findings of audit. PROFEPA also supervises completion of corrective actions. While the EAP meets the requirements of ISO14001 accreditation, it therefore goes beyond the requirements of that system.

**Results:**

- By February 1999, 1 016 audits had been completed and 87 are in process (total 1 103 audits).
- By February 1999, 858 action plans had been agreed and signed, involving investment of \$1 500 million to purchase and install pollution control devices and modify productive processes.
- By February 1999, 259 Clean Industry Certificates had been granted (*i.e.* action plans have been fully implemented), and two renewals of certificates have been granted.
- PROFEPA had spent P\$90 million on the programme by the end of 1997.

*Sources:* Norma Munguia, PROFEPA; Jose Luis Calderon Bertheneuf (1998), "The Environmental Audit in Mexico" in Nelson, D. (ed.) *International Environmental Auditing*, Government Institutes, Rockville, Maryland, pp. 366-378.

## **1.2. Government regulation that maximises voluntary compliance**

In response to compliance failures associated with traditional command-and-control style regulation, some governments have also experimented with different styles of government regulation that are designed to maximise the possibilities for voluntary compliance. The essence of command-and-control regulation is imposition of explicit standards backed by criminal sanctions. The focus is on application of criminal sanctions by an external regulator or court after a violation has occurred.

***Performance standards instead of specification rules.*** One way in which voluntary compliance can be increased is through using regulation to mandate the policy goals via broad outcome standards instead of prescribing rules or procedures to achieve the goal.

- Rules generally take the form, "in circumstance X, do Y or not Y."
- A performance standard requires the pursuit or achievement of a value, a goal, or outcome without specifying the actions required to do so.

Performance or outcome-based regulation is based on standards, in contrast to more traditional prescriptive command-and-control regulation.

By focusing on results (outcomes) rather than on the means for achieving them (inputs), performance standards permit each regulated entity greater freedom of action to find the lowest-cost or best means of complying for itself. Outcome standards can improve compliance by reducing the costs of compliance with technical rules and encouraging innovation to find the most effective ways to reach socially desired outcomes (the Amoco Yorktown experiment is presented in Box 10). In this example, it was found that if the EPA had applied outcome standards for benzene emissions to the whole of Amoco's Yorktown plant, rather than specific rules mandating certain technology in the smokestacks, Amoco would have been able to achieve greater emissions reductions at much lower cost.

**Box 10. Regulatory flexibility and regulatory innovation: the Amoco Yorktown experiment**

The US Environmental Protection Authority (EPA) had a rule requiring that specific equipment be put in smokestacks to filter benzene. Amoco spent \$31 million on compliance in its Yorktown, Virginia refinery.

In 1990 Amoco and the US EPA formed a partnership to study the pollution reduction possibilities at the refinery. They also commissioned a non-profit environmental research group to peer review their findings. They found that the refinery was emitting the most significant amounts of benzene not via the smokestacks but at the loading docks where gasoline was being pumped into barges. Amoco would be able to achieve the same level of emissions reduction required under the US Clean Air Act for a quarter of the cost (US\$10 million instead of US\$40 million) if the EPA would allow Amoco to decide where the money should be spent through innovations in process engineering, rather than applying specific rules mandating smokestack technology.

However the study cost US\$2.3 million and, although the EPA paid 30% of that cost, other Amoco plants and other companies in the refining business did not want to spend that amount of money looking for money-saving options. Nor without legislative action could the EPA actually change its rules to be more outcome-based.

*Sources:* Schmitt, Ronald (1994), "The Amoco/EPA Yorktown experience and regulating the right thing", 9(1) *Natural Resources and Environment*, 11-13, 51; Philip Howard 1994, *The Death of Common Sense*, Random House, New York, pp. 7-8.

The disadvantages of performance-based regulation or performance standards are that:

- There may be uncertainty regarding what constitutes acceptable compliance.
- It is only suitable in situations where the regulated entity is in a better position than the regulator to understand and solve the potential causes of accidents or problems that the regulation is supposed to address.
- It may be difficult for regulators to monitor and enforce compliance with broader standards, and it will generally be unsuitable where regulators cannot monitor the outcomes at all (*e.g.* oil discharges on the open sea; see above in Chapter 2, Section 2).

There is some evidence that broad outcome-based standards can be easier to apply, monitor, and enforce than many specific rules in some circumstances, especially if they have been developed in a process of dialogue and consultation between regulator and regulated. The example of the differing effects of rule-based nursing home standards in the US and outcome-based standards in Australia, mentioned above in Chapter 2, illustrates this point.

If performance-based regulation is used, then it may also be necessary to provide for *safe harbours* to meet the needs of SMEs or other enterprises that do not have the capacity to engage in the innovation necessary to meet outcome-based standards on their own. Safe harbours occur when

performance standards also provide SMEs the option of complying with a set of detailed guidelines or using a certain technology to ensure the required performance. For example, occupational safety and health legislation in the United Kingdom sets broad performance standards but also detailed codes of practice for guidance that regulated entities can follow in order to meet the broad standards. This means performance-based regulation can be used, while at the same time providing guidance for regulated entities that may need it.

**Process regulations.** Another way to improve the potential for compliance with regulation can be to use process-based rules instead of command-and-control style rules. Process rules are based on a systematic approach to controlling and minimising risks and may be seen as analogous to quality assurance systems and management standards. Process regulations are aimed at a broad outcome, and require firms to introduce their own management systems aimed at accomplishing that regulatory goal.

Process-based regulation has the following compliance advantages:

- It allows businesses to make their own decisions about how to achieve the goal, and therefore encourages maximum voluntary compliance compatible with competitiveness and innovation.
- It produces behaviour designed to prevent problems before they occur.
- It can harmonise more easily with international standards.
- Firms are placed in more direct control of firm-specific hazard reduction rather than government-created one-size-fits-all solutions; individual firms better control of the actual hazards they face.

Process regulations are often based on requiring organisations to take a systematic approach to identifying, controlling, and minimising risks. For example, there is a movement in both occupational health and safety and food regulation towards requiring firms to engage in their own process of hazard identification, risk assessment, and risk control to achieve safety outcomes.

- “HACCP” principles are being recognised internationally as a way of minimising food adulteration risks. Regulatory systems that use the HACCP system place the responsibility to determine and solve problems with the individual firms, allowing for a tailored approach to reducing risks rather than a one-size-fits-all regulatory strategy. HACCP systems require the identification of likely hazards and of critical control points in the production process where preventative measures are essential to avoid those hazards. Critical limits are established and monitored for the critical control points and corrective action is taken if the critical limits are passed.<sup>41</sup>

Process regulations give firms the opportunity to incorporate regulatory goals into business goals and operating procedures; their flexibility may make controversial regulation institutionally more palatable.

- Australia’s affirmative action regime fits in with business goals of good human resource management, rather than imposing particular targets for equal employment (see Box 11).

Process regulations have the following *disadvantages*:

- Systematic managerial approaches to achieving regulatory goals can be very expensive, especially for small business, and can be difficult to monitor and enforce.

- Process regulation is unlikely to be suitable where violations are the result of deliberate misconduct, and therefore may need to be backed up with monitoring of outcome-based standards in certain circumstances.
- Like performance-based regulation, the government may need to provide guidance and advice to certain regulated enterprises that do not have the capacity to conduct risk analyses on their own.

**Box 11. Process regulation and Australia’s Affirmative Action regime**

The Australian Affirmative Action (Equal Employment Opportunity for Women) Act 1986 mandated that all companies with over 100 employees develop an equal employment opportunity policy; they are to set objectives, monitor them, and submit a report on their progress to the Federal Affirmative Action Agency each year.

The Australian Affirmative Action Act 1986 requires employers to establish affirmative action programmes by:

- Issuing an equal employment opportunity policy statement to all employees.
- Assigning responsibility to a senior officer.
- Consulting with trade unions.
- Consulting with employees, particularly women.
- Collecting statistics to observe the gender vs job classification breakdown.
- Reviewing personnel policies and practices.
- Establishing forward estimates and objectives.
- Monitoring and evaluating the programme.

An evaluation of compliance with the Affirmative Action Act found that 96% of those businesses registered with the Affirmative Action Agency had submitted a report to the Agency as required by the Act. Other research has shown that women’s managerial representation has increased at a significantly higher rate in firms covered by the legislation than in those that are not, and that affirmative action programmes in general have steadily improved since the regime was introduced. Commitment to the business goal of human resources management correlated highly with both procedural compliance with the eight steps, and with substantive compliance as measured by the reported implementation of practices that actually accommodated women in the workplace.

*Source:* Braithwaite, V. (1993), “The Australian Government’s Affirmative Action Legislation: Achieving social change through human resource management” 15(4) *Law & Policy*, pp 327–354; Affirmative Action Agency (1997), Annual Report 1996-1997.

## **2. INNOVATIONS IN THE IMPLEMENTATION AND ENFORCEMENT PHASE**

### **2.1. Rewards and incentives for high/voluntary compliance**

The design of rules and particularly of monitoring and enforcement regimes, can also encourage compliance by providing incentives or rewards for high voluntary compliance and compliance innovation. Rewards for voluntary or particularly high compliance can include reducing the burden of routine inspections, offering penalty discounts for minor incidents of non-compliance that do occur, simplifying licences and permits, permitting the use of a label or mark certifying a high level of compliance, and providing indemnities for voluntary disclosure and correction of non-fraudulent non-compliance.

As was argued above in Section 1, incentives and rewards can be an important support for voluntary compliance, along with such other alternatives to regulation as self-regulation and voluntary adoption of internal management standards. Rewards and incentives can also boost compliance in relation to government regulation:

- Rewards and incentives for generally high compliance performance can recognise the good faith efforts of enterprises that usually comply with, but occasionally inadvertently violate, a rule. For example, providing a penalty reduction when non-compliance does occur, or an indemnity to the enterprise that reports and corrects a violation avoids a situation where the regulator must take “unreasonable” enforcement action against a basically compliant enterprise.
- Appropriate government and public recognition can encourage well-intentioned enterprises to become “compliance leaders.” This provides models for other enterprises to follow and can pull up overall compliance performance in a market sector through the dynamics of market leadership.
- In particular, rewards for “compliance leaders” who meet certain standards can help meet desired policy outcomes voluntarily (for example an improvement in air quality via greater emissions reduction) without having to use unreasonable coercion with all regulated entities.
- Governments can also use rewards and incentives to encourage a small group of “compliance leaders” to enter experimental programmes for new regulatory approaches (such as moving from rule-based to a standard or process based regulation). In this way, the enterprises receive rewards for high compliance with policy objectives under the experimental regime; governments learn from them how to reform existing regulatory approaches in practical ways and what is feasible to expect of business. Many of the compliance innovations described in this report were first introduced to a small group of enterprises in this way.

However, rewards and incentives are suitable only for enterprises that are compliance leaders. They are not an adequate regulatory strategy on their own because “compliance laggards” and enterprises that act in bad faith will require traditional enforcement and punitive sanctions. In most situations, when using rewards and incentives, regulators must also be careful that the requirements that enterprises must meet in order to qualify for rewards should be kept relevant and moved up as overall compliance performance in an industry sector moves up.

For example in the State of Victoria, Australia, the Environmental Protection Agency (EPA) wanted facilities to develop environmental improvement plans (EIPs) with local communities. These were intended to reduce community-plant conflict and ease the process of approving development proposals by reducing community objections and encouraging companies to develop proposals that local communities understood and supported from the beginning. Subsequently, the EPA developed the incentive of a more flexible permitting system for companies with an excellent environmental management system which included an EIP (see Box 12). This example also shows that compliance-oriented regulation will often use a mix of regulatory and alternative regulatory strategies. Here compliance with voluntary standards for environmental management systems eased the burdens of the process requirements for works approval and licensing, as well as the number of inspections, and the reporting and approval requirements.

**Box 12. Flexible permitting programmes as incentives for environmental complianceVictoria's EIPs and accredited licensee permitting system**

*Background and compliance problem:*

The EPA was facing problems in the way it interacted with local communities in the regulation of companies' proposals for developments and other issues. There was also significant conflict between local communities and facilities on environmental issues, with many local communities not happy with the level of environmental improvement achieved by the EPA working with local facilities. In one particular area, Altona, two potentially catastrophic accidents had occurred over a ten-year period and because the residents were constantly annoyed and fearful, they opposed every application brought by local facilities for developments or changes. This also hampered the EPA's attempts to work with these facilities to achieve its objectives of pollution prevention and control.

*The compliance innovation:*

A community liaison officer was appointed to facilitate consultation between senior plant management and local communities to solve these problems and to set objectives for environmental improvement in local facilities. Consultative groups for each plant include local community representatives, the people who had previously complained to the EPA about the plant and top management of the plant. These consultative groups meet approximately monthly to understand the environmental issue facing the plant from the plants' and the communities' point of view and to agree on an improvement plan to address those issues. The EPA is often called upon to provide advice in and to facilitate such meetings. Once the group has agreed on an EIP, the consultative group meets quarterly to hear reports of the implementation of the plan and to address new issues. After two years the whole process is reviewed and begun again.

The EPA also set up the Accredited Licensee concept as a reward for companies with good environmental performance. An EIP is one of the key indicators of this performance. Amendments made in 1994 to the Environment Protection Act 1970 in Victoria, a state of Australia, allow companies to be freed from the standard prescriptive approach to works approval and licensing if they can demonstrate a high level of environmental performance and an ongoing capacity to maintain and improve that performance. In order to become an "accredited licensee" a company must have:

- An environmental management system.
- An environmental audit programme.
- An environmental improvement plan.

The benefits for accredited licensees include:

- The ability for the licensee to manage its own affairs without detailed regulatory prescription.
- A single system for the whole site.
- No requirement for works approval except where there will be substantial changes to a process, or a major change to a discharge or emission.
- Reducing license fees by 25% in recognition of lesser involvement by EPA personnel.
- Improved liaison and consultation with the local community.

The license must be subject to review at a predetermined frequency not greater than five years. Continuation of the license is assessed on the basis of actual environmental performance and is judged against factors such as license compliance, implementation of environmental improvement plans, and level of legal action (*e.g.* prosecutions).

*Results:*

- As of late 1998, there were 31 EIPs agreed by local consultative groups already in effect and a further 18 in the process of consultation and agreement.
- As of mid-1998, a total of 11 accredited licences had been issued out of a total of 1 229 licenses issued in three years.
- The EIPs have resulted in significant improvements in environmental outcomes for particular sites such as a halving in emissions of volatile organic compounds at Altona between 1989 and 1998.

*Sources:* Environment Protection Authority (1993), "A question of trust: Accredited Licensee Concept," Discussion Paper, Environment Protection Authority, Melbourne, Victoria; Law Reform Committee (Victoria) (1997), "Regulatory efficiency legislation: Discussion Paper", Parliament of Victoria, Melbourne, Paragraphs 2.23-2.28; Author's research at the EPA, 1998.

Another way that regulatory design can provide incentives for high voluntary compliance is to provide companies or individuals with a reduction of penalty if they are found to have breached the law.

- Internationally the most significant development of this kind is the US Federal Sentencing Guidelines for organisations. These guidelines were promulgated by the US Sentencing Commission (a judicial agency) and went into effect without congressional action. Companies with good compliance programmes (defined by certain elements in the Guidelines) are given decreased fines when they commit an offence. Those that do not have in place a compliance programme are placed on probation, and required to implement one. This has spread to many other regulators who are now willing not to prosecute at all if an enterprise can show it has a programme in place that meets the USSC guidelines. The Guidelines have had a significant impact on the implementation of compliance policies among US companies generally (irrespective of whether they have had any contact with a regulator). Surveys have found that the Guidelines caused up to 20% of the companies surveyed to introduce for the first time an internal system for ensuring regulatory compliance and up to 45% to add vigour to their internal compliance system.<sup>42</sup>

## **2.2. *Nurture compliance capacity in business***

Innovative regulatory strategies for encouraging compliance are not likely to be effective if organisations have no capacity or expertise in how to comply with a regulation. If enterprises that are the target of regulation lack the expertise, information, or technological capacity to comply, then they cannot respond either to economic incentives, such as workers compensation regulation, or to deterrent threats of punitive sanctions. A rule will not make them comply, unless it first addresses capacity building. Therefore to increase compliance regulators need to nurture organisational capacity to comply through offering education, assistance, and consultations, and encouraging the growth of compliance professionals with special expertise in the area.

Regulators should give particular priority to the nurture of compliance capacity in SMEs. Research suggests that in many cases low compliance rates among SMEs occur partially because SMEs lack the economies of scale that make it possible for them to invest in compliance expertise individually. Some regulators have experimented with correcting this market failure by spending resources on building capacity rather than on increasing inspections and monitoring.

- For example, US OSHA has targeted compliance assistance to SMEs through its OSHA Consultation Programme. This is a broad network of occupational safety and health services funded primarily by federal OSHA but delivered by 50 state governments that provide free sources of information and technical assistance to employers who request help in establishing and maintaining safe and healthful workplaces. The comprehensive assistance available goes well beyond the minimum requirements of OSHA regulation and includes an appraisal of all mechanical systems, physical work practices, and environmental hazards of the workplace, covering all aspects of the employer's present job safety and health programme. The programme exists primarily to assist SMEs (those with no more than 250 employees) in high hazard industries or involved in hazardous operations. In recent years the consultation programme has helped identify and control more than 500 000 workplace safety and health hazards. A major selling point for the SMEs is the government's willingness to pay for expert services that otherwise could cost a small employer thousands of dollars. The Consultation Programme is also completely separate from OSHA's Inspection Programme and the consultant pledges

confidentiality, provided that the employer agrees to correct in a timely manner any serious hazards uncovered during the consultation visit. In an independent survey conducted for OSHA in 1995, employers who had received onsite consultation visits indicated high levels of satisfaction with the service provided and the knowledge and competence of OSHA consultants.<sup>43</sup>

In most situations, government funding of compliance advice for enterprises is not necessary. Rather, private markets in “compliance professionals,” who have the expertise to help companies to comply, are already developing. They serve either as employees or consultants to enterprises. These compliance professionals include safety and environmental engineers as well as specialist compliance professionals in anti-discrimination (equal employment opportunity and sexual harassment), financial services, and consumer protection. Regulators can nurture these private markets in compliance consultants by recognising and working with compliance professionals. Some empirical evidence shows that flexible compliance-oriented regulatory programmes are more likely to succeed where regulators work with compliance professionals employed by regulated enterprises. The compliance professionals can act as a go-between between regulator and business, so that business understands how to comply with regulatory goals and so that business can communicate ideas for more innovative and flexible regulatory mechanisms back to regulators. Regulators who interact and work with compliance professionals, or even delegate some inspection and reporting responsibilities to compliance professionals (subject to appropriate monitoring), may be able to achieve compliance improvements in particular areas (see Box 13).

### **2.3. Targeting for low compliance**

A significant development is to use risk analysis to identify targets of possible low compliance. Enforcement agencies are beginning to decide when and where to do inspections by analysis of data on where risks of non-compliance are likely to be highest. *Tiering* is an important tool for this task since not all regulated entities can be monitored or inspected all the time. It is very important to have a rational system for deciding which to target.

Those regulated can be tiered according to size – ranked according to the number of employees, operating revenues, assets, or market share. This may be useful because larger enterprises may be judged to present a greater risk because of the pure quantity of breaches they can produce, for example, the quantity of pollution or of employee injuries or customer dissatisfaction. There is evidence that tiering inspection activities according to *size* has had significant effects in improving tax compliance (see Box 14). Other risk analysis-based factors for targeting inspections include geographic location (*e.g.* whether a manufacturing plant is close to where people live or to environmentally sensitive areas), previous violations (whether those with a history of recidivism should be targeted), and the age of the facility (older plants may be judged more risky than newer ones).

Another useful way for regulators to target enforcement efforts in such a way that resources are used most efficiently is to tailor inspections according to the risk represented by individual firms determined by their own ability to comply, including their own attempts to meet those risks. For example, if an enterprise has conducted its own risk analysis and put in place its own compliance system, then it may warrant lower priority for inspection, than one that has not. When that enterprise is inspected, then the inspector may only check the functions and outcomes of the enterprise’s own compliance system, rather than conduct various inspections to determine whether specific rules have been violated.

- For example, in Denmark the Working Environment Authority has recently started conducting inspections in a new way, “adapted inspection”. Rather than inspecting sites a number of times in relation to different issues, the Authority looks at the whole facility or site being inspected and the systems the enterprise has decided to put in place to meet its responsibilities to improve occupational health, safety, and the environment.<sup>44</sup>

**Box 13. The contribution of compliance professionals to increased compliance**

*Occupational health and safety:*

An evaluation of the Californian branch of the US Occupational Safety and Health Administration (OSHA) experiment with the Co-operative Compliance Programme between 1979 and 1984 found that safety management professionalism was crucial to compliance with regulatory goals. The programme authorised labour-management safety committees on seven large construction sites to assume many of OSHA’s regulatory responsibilities (such as conducting inspections and investigating complaints), while OSHA ceased routine compliance inspections and pursued a more co-operative relationship with these companies.

- During the programme accident rates ranged from one-third lower to five times lower than comparable company projects, and the satisfaction of workers, management, and government participants with the programme was high.
- The evaluation found that this approach succeeded mainly because it strengthened the pre-existent job site safety programmes in ways that traditional regulatory strategies could not. The voluntary job site safety programmes in turn had been promoted and implemented by safety management professionals, a professional specialisation supported by the American Society of Safety Engineers. The existence of safety management professionals within the companies also allowed the labour-management and regulator-management communication necessary for the programme to succeed.

*Source:* Rees, J. (1988), *Reforming the Workplace: A Study of Self-Regulation in Occupational Safety*, University of Pennsylvania Press, Philadelphia.

*Affirmative action:*

An evaluation of compliance with the Australian affirmative action regime found that the degree of professionalism of Equal Employment Opportunity (EEO) officers, especially their professional networking with other EEO professionals and with the EEO agency, were positively correlated with procedural and substantive compliance with the requirements of the regulation.

Similarly, another study of corporate compliance with US civil rights laws found that an important source of diffusion of due process protections was the professional practices of personnel officers and the establishment of personnel departments who saw compliance as part of their professional function. These officers and their departments provided a direct channel through which models of employee rights implementation could enter the organisation and created an internal constituency for the elaboration and enforcement of employee rights.

*Source:* Braithwaite, V. (1992), “First steps: Business reactions to implementing the Affirmative Action Act,” report to the Affirmative Action Agency, Australian National University, Canberra; Edelman, L. (1990), “Legal environments and organisational governance: The expansion of due process in the American workplace,” *95 American Journal of Sociology*, pp. 1401-1440.

#### Box 14. Tiering and tax compliance

A guiding principle behind many successful tax reforms has been to require different administrative arrangements for taxpayers of different size.

##### *Large taxpayers:*

Since in many countries a small number of taxpayers contribute a large proportion of the taxes collected, special audit and enforcement activities for the largest taxpayers can yield significant results.

- In Uruguay, Bolivia, and Sri Lanka, where large taxpayers represent a high percentage of total tax collection, the percentage of non-filers among the approximately 1 000 largest taxpayers dropped from 10% to 1% with the establishment of large-taxpayer enforcement units during the period from 1987 to 1991.
- In Argentina the Two Thousand Taxpayer System or DOS-MIL was established in 1991 to monitor the 900 largest taxpayers in the Buenos Aires metropolitan area. By 1994 it operated in approximately 130 tax offices throughout Argentina and covered about 2 450 taxpayers. During the period 1990-1994, VAT collection rose from 2.1% of GDP to 6.3% of GDP, an increase partially attributable to these reforms.

##### *Medium-sized taxpayers:*

- In Uruguay the monitoring of 5 000 medium-sized taxpayers with a new computer system beginning in 1990 resulted in a 22% real increase in taxes collected from this group in the same year.
- In Paraguay the use of new systems with 1 000 medium-sized taxpayers resulted in a 36% increase in real tax collection from 1994-1995 for this group, and 22% increase in total revenue.

*Source:* Silvani, Carlos & Baer, Katherine (1997), "Designing a tax administration reform strategy: Experiences and guidelines: A Working Paper of the International Monetary Fund," 15(5) *Tax Notes International*, pp. 375-395.

A number of British financial regulators have developed quite sophisticated models for tiering inspections for financial institutions. These are based on the existence of compliance and risk management systems within the institutions themselves.

- For example, the Investment Management Regulatory Organisation (IMRO, a front-line regulator recognised by the Financial Services Authority in England) uses the *Relative Risk Assessment Model* to determine the degree of risk to investors that a firm may generate. The assessment is based upon:
  - The inherent risks of the products sold or managed by the firm.
  - The capital base of the firm.
  - The experience and ability of the management and staff of the firm.
  - The attitude of the firm towards investor interest and compliance issues, including the standard of the firm's compliance system.

Firms are rated on a three-point scale solely for IMRO use and their rating is used to determine how frequently IMRO inspectors visit firms and how closely they monitor their activities. A pilot study of 50 organisations rated in the first level that have been given less onerous regulatory responsibilities has been very successful.<sup>45</sup>

Tiering has potential disadvantages:

- It is more complex for regulatory agencies to conduct risk assessments, to determine where to prioritise monitoring resources, and how to approach inspection of different segments of the target population.
- Because tiering introduces greater sophistication, it also creates greater delay in the regulatory design process.
- From the point of view of the target population, tiering and targeting may appear to mean different enterprises are being treated inconsistently.
- Legal constraints may limit the availability of tiering as a regulatory mechanism, if it appears to treat different segments of the target population unfairly *vis-à-vis* one another.

One way for an enforcer to avoid the problem raised by the appearance of unfairness is to use a very transparent system for awarding exemptions in specific situations, and automatically applying this system to all companies in a similar situation.

#### **2.4. Restorative justice when voluntary compliance fails**

Compliance-oriented regulation is often aimed at providing incentives and encouragement for voluntary compliance and nurturing the ability of enterprises to secure compliance through self-regulation, internal management systems, and market mechanisms where possible, rather than automatically using punishment for violations of the rules in the first instance. When organisations do fail to comply, a compliance-oriented regulatory approach will attempt to *restore* compliance rather than revert immediately to a purely punishment-oriented approach.

In criminal process, restorative justice requires an offender to confront his/her responsibility for wrongdoing by facing his/her victim(s) and resolving together how to put the wrong right (for example by paying restitution or doing community service). Restorative justice gives the offender a chance to put his/her wrong right and upon doing so to be restored back into full citizenship in the community. The aim is not only to provide a better remedy and healing for the victim than imprisonment or a fine would provide, but also to help transform the offender to a more law-abiding person in the future. This is often achieved by enlisting the support of members of both the victim's and offender's families and communities to support the victim and offender in the restorative process.

Taking the same approach, a number of business regulators have experimented with adopting innovative mechanisms for *restorative justice* when compliance fails, in order to remedy the wrong and ensure compliance in the future. While the evidence on the effectiveness and fairness of restorative justice for *individual* offenders is still being evaluated, there is good evidence that the *restorative justice* is effective for *corporate* law breaking (see Box 15).<sup>46</sup> The aim of restorative justice is to restore enterprises to a position where they have both the capacity and willingness to comply after they have committed a violation. It is therefore an important tool for regulators to use in responding to compliance failures.

### Box 15. Successful uses of restorative justice in business regulation

#### *Coal mine safety:*

In the UK the mines with the best safety records are those that thoroughly include everyone concerned (workers, management) after accidents and near-accidents in an effort to reach consensual agreement on what must be done to prevent recurrence of the accident or near-accident and to discuss safety results with workers even when there was no near accident.

#### *Nuclear power safety:*

Another example of the success of restorative justice processes in regulating safety is the Institute of Nuclear Power Operators (INPO), a US self-regulatory organisation to oversee nuclear utilities. Set up after the Three Mile Island accident, it develops standards, conducts inspections, and investigates accidents. Safety has increased significantly as measured by a number of indicators, including data that shows that scrams (automatic emergency shutdowns) per unit have declined in the US from seven per unit in 1980 to one in 1993. One of the restorative regulatory mechanisms that has contributed to this success is meetings in which senior nuclear officials from all companies meet together and three vice-presidents give a detailed explanation of a recent accident at their utility and what went wrong.

- More than a detailed explanation of an accident, it also involves “baring your soul and telling all to your peers (people that you know) that you screwed up,” explains an INPO official. “You know, I’m not a Catholic, but it’s probably like going to confession. In the end you’ll feel better, but when you’re there it’s pretty difficult.” Within an ongoing relationship sustained by close ties (whether a family or occupational community), wrongdoing arouses the disapproval of a significant other (whether a parent or professional peer), thus invoking a sense of remorse and repentance in the wrongdoer, which leads to re-acceptance (reintegration) by the significant other. Wrongdoing, shame, and reintegration – that distilled to its essence is the family [restorative] model of social control.

#### *Nursing home regulation:*

A cross-country evaluation of nursing home regulation and inspections has also found significant evidence for the effectiveness of restorative justice mechanisms in controlling organisational wrongdoing. For example, one part of the study measured the inspection findings in 242 Australian nursing home inspections, and compared the levels of compliance found in that inspection and in the next inspection 18 to 24 months later.

- Where the inspection team had used restorative justice (*i.e.* they clearly disapproved breaches of the rules but also terminated disapproval by pointing to something positive or offering praise for moving to fix that which was disapproved) non-compliance was reduced by 39% between the first and second visits.
- Where inspection teams used purely negative and punitive approaches and did not also offer praise and forgiveness, non-compliance increased by 39%.
- Where inspection teams were purely tolerant and understanding, but did not make clear their disapproval for breaches of the rule, non-compliance either increased or stayed the same.

The authors of the study concluded that:

*[T]he most stigmatic inspectors manage to effect significant reductions in the compliance at the nursing homes they inspect. At the same time, tolerant and understanding inspectors who believe in saying nice things at all times are almost as ineffective. This is because these tolerant and understanding inspectors fail to express disapproval when the standards set down in the law are not met. The effective inspectors are those who believe in strong expressions of disapproval combined with strong commitments to burying the hatchet once such robust encounters are over, to terminating disapproval with approval once things are fixed, to tempering disapproval for poor performance on one standard with approval for good performance on other standards, to avoiding humiliation by communicating disapproval of poor performance within a framework of respect for the performer.*

Sources: Braithwaite, J. (1985), *To Punish or Persuade: Enforcement of Coal Mine Safety*, State University of New York Press, Albany, p. 67; Rees, J. (1994), *Hostages of Each Other: The Transformation of Nuclear Safety Since Three Mile Island*, University of Chicago Press, Chicago and London, pp. 106-107; Makkai, T. & Braithwaite, J. (1994), “Reintegrative shaming and regulatory compliance,” *32 Criminology*, pp. 361–385.<sup>47</sup>

## 2.5. *Responsive enforcement when restorative justice fails*

Restorative justice, of course, must always be backed up by the possibility of more punitive sanctions. This gives regulators the option of responding to non-compliant enterprises that demonstrate bad faith in the restorative justice process with more punitive sanctions. It is also important that enterprises know that “softer” enforcement strategies such as restorative justice will be followed by harsher strategies such as fines and license suspensions, if non-compliance persists. Indeed the evidence shows that persuasive and compliance-oriented enforcement methods are more likely to work where they are backed up by the possibility of more severe methods.

- For example, in one study UK mine safety regulatory inspectors who used persuasive restorative strategies to promote compliance were more effective if persuasion was backed up by the possibility of punishment.<sup>48</sup>

The central principle here is that a regulator should have available a range of enforcement mechanisms in order to be responsive to the particular type of non-compliance it faces in any individual situation. A regulator can start with persuasive or restorative strategies and then move to more punitive strategies if voluntary compliance fails. If the application of punitive sanctions succeeds in bringing about compliance then the regulator can respond by reverting to a trusting demeanour, rather than building resistance by being overly punitive. If the initial round of punitive sanctions does not bring about compliance, then the regulator can respond by invoking harsher sanctions. The wider the range of strategies (from restorative to punitive) available to the regulator, the more successful this type of responsive, “tit-for-tat” enforcement is likely to be.

This principle has been demonstrated in the idea of a pyramid of enforcement strategies (see Figure 1). The pyramid is a schematic representation of the idea that instead of using the most drastic regulatory strategies first, regulators should trade on the goodwill of those they are regulating. Regulators should encourage those regulated to comply voluntarily, using more drastic regulatory measures only when that fails and reverting to a trusting demeanour when these strategies achieve their goal: “Compliance is optimised by regulation that is contingent, co-operative, tough and forgiving.”<sup>49</sup> In this model prioritising restorative, compliance-oriented means of regulation in time ensures that co-operative, voluntary measures are used more frequently without compromising the possibility of using harsher measures where necessary. In the pyramid illustrated, license suspension and revocation are at the top of the pyramid because they represent the complete closing down of a business, as compared with a criminal financial penalty or the jailing of a particular executive. Each regulatory regime would, however, design its own pyramid of sanctions. For example corporate probation (where a company is put on “probation” until it is adequately in compliance) might be included, or criminal penalties might be considered harsher than license revocation. This concept does not suggest that the direct use of punitive sanctions as part of a tit-for-tat enforcement strategy should be excluded.

Figure 1. **An enforcement pyramid for business regulation**



Source: Ayres, I. & Braithwaite, J. (1992), *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York, p. 35.

## Chapter 4

### TOOLS FOR COMPLIANCE-ORIENTED REGULATION

In order to take a compliance-oriented approach to regulatory design and implementation, governments will need to be equipped with appropriate tools for the measurement and evaluation of the performance of regulatory instruments and of regulatory agencies. This chapter outlines some regulatory performance measurement and management tools that might be available to help governments analyse actual or potential compliance failures, and pinpoint aspects of regulatory design and regulatory agency performance that need to be addressed.

#### 1. TOOLS FOR *EX ANTE* EVALUATION: IMPACT ANALYSIS OF COMPLIANCE

Compliance-oriented regulation aims at maximising the “leverage” of government resources and activities by strengthening the factors working in favour of compliance and by weakening or eliminating those working against. This requires that the regulator have the ability to analyse the various factors that will determine whether or not the target group will comply with the specific regulatory policy instruments involved. Compliance analysis can be used for *ex post* evaluation of the functioning of regulatory instruments, and in this way be used as an indicator whether the regulations are achieving their objectives. However, in order to avoid compliance failures, it is better to design compliance into policy instruments from the beginning. This means using compliance analysis as an *ex ante* method of deciding how to design regulatory policy. Compliance should not merely be part of an enforcement strategy tacked on the end of the policy and rulemaking process.

The country responses to the PUMA request for information on regulatory compliance showed that some countries (five of nine responses) are developing policies and guidelines for designing high quality regulation that incorporate some consideration of the compliance impacts of proposed regulations. Some governments are now using systematic, comprehensive compliance analysis tools to uncover potential compliance failures facing current or proposed policies, and to design regulation to maximise its possibilities of success. These tools move regulatory policy development and evaluation beyond the assessment of economic compliance costs and benefits to look at the total factors of regulatory quality (including costs and benefits) that affect the achievement of the policy objective.

In 1993, the Netherlands Inspectorate of Law Enforcement within the Ministry of Justice developed, in collaboration with Dick Ruimschotel and the Rotterdam Erasmus University, the Table of Eleven (T<sup>11</sup>) Key Determinants of Compliance. This model focuses on the factors that will affect the impact of the regulation on an external target group. The T<sup>11</sup> is developed as a standard checklist for use by public agencies in assessing new regulatory proposals and reviewing enforcement and other issues in relation to existing regulation. The T<sup>11</sup> is a coherent enumeration of the factors that determine compliance by target populations with laws and regulations. It helps governments understand the potential or existing compliance/non-compliance behaviour of target populations, and therefore design more effective regulation. Box 16 enumerates the T<sup>11</sup> factors.

Box 16. **The Netherlands Table of Eleven (T<sup>11</sup>) key determinants of compliance**

**The T<sup>11</sup> factors:**

*Spontaneous compliance dimensions* (factors that affect the incidence of voluntary compliance – that is, compliance that would occur in the absence of enforcement):

- T1. *Knowledge of rules:* Target group familiarity with laws and regulation, clarity (quality) of laws and regulations.
- T2. *Cost-benefit considerations:* Material and non-material advantages and disadvantages resulting from violating or observing regulation.
- T3. *Level of acceptance:* The extent to which the target group (generally) accepts policy, laws, and regulations.
- T4. *Normative commitment:* Innate willingness or habit of target group to comply with laws and regulations.
- T5. *Informal control:* Possibility that non-compliant behaviour of the target group will be detected and disapproved of by third parties (*i.e.* non-government authorities), and the possibility and severity of sanctions that might be imposed by third parties (*e.g.* loss of customers/contractors, loss of reputation).

*Control dimensions* (the influence of enforcement on compliance):

- T6. *Informal report probability:* The possibility that an offence may come to light other than during an official investigation and may be officially reported (whistle blowing).
- T7. *Control probability:* Likelihood of being subject to an administrative (paper) or substantive (physical) audit/inspection by official authorities.
- T8. *Detection probability:* Possibility of detection of an offence during an administrative audit or substantive investigation by official authorities. (The probability of uncovering non-compliance behaviour when some kind of control is applied).
- T9. *Selectivity:* The (increased) chance of control and detection as a result of risk analysis and targeting firms, persons or areas (*i.e.* extent to which inspectors succeed in checking offenders more often than those who abide by the law).

*Sanctions dimensions* (the influence of sanctions on compliance):

- T10. *Sanction probability:* Possibility of a sanction being imposed if an offence has been detected through controls and criminal investigation.
- T11. *Sanction severity:* Severity and type of sanction and associated adverse effects caused by imposing sanctions *e.g.* loss of respect and reputation.

*Source:* Dick Ruimschotel, Compliance Methodology Consultants, Amsterdam and But Klaasen, Ministry of Justice, the Hague.

The T<sup>11</sup> can be used to make a strength/weakness analysis/evaluation of expected compliance with a regulation using one of two methodologies:

- First, hold an expert session, *i.e.*, a group of key figures from the target group, policy officials, administrators, enforcers and other experts from the regulator/policy area meet to estimate the strength of each of the different T<sup>11</sup> factors based on their own experience.
- Second, a more objectively based and valid way of conducting the T<sup>11</sup> analysis is via extensive research in the target group using surveys. This will take longer and be more expensive but produce more reliable data.

In both cases each element of the T<sup>11</sup> is assigned a numerical score from one to five in relation to the particular regulation being examined, with one indicating a weak compliance dimension and five

being strong. This produces a characteristic overview of a certain regulation, its strong and weak spots, and measures of the effectiveness of enforcement and communication. In rulemaking development, the factors can be used in checklist fashion to ensure that all the dimensions of policy design that may affect compliance have been adequately considered and addressed. In looking at existing regulation, this analysis will pinpoint where compliance failures are likely.

According to a T<sup>11</sup> analysis, regulatory design is optimal when the result is simple to implement and produces a maximum level of spontaneous compliance. If T<sup>11</sup> analysis shows that spontaneous compliance is insufficient and cannot be improved in certain areas, then additional controls and sanctions may need to be added in that area to guard against breaches and lead to a reasonable level of compliance.<sup>50</sup>

A simpler, more outcome-oriented model, the A2E Model, is being used by the European Bank for Reconstruction and Development to help review and reform the Czech capital market regulatory environment and, especially, the development of the Czech Securities Commission (CSC). This reform process was initiated to correct a reversal in the performance of the Czech economy since the mid-1990s, after what had been regarded as one of the more successful conversions from a command to a market economy. In 1994-96 returns on equity remained low (4-6% for large firms and 1-3% for SMEs) and unemployment had risen sharply. Many Czech firms had been the objects of systematic fraud and asset stripping. The capital market, its regulators, and the government faced a major loss of credibility, as long term growth of the Czech economy became increasingly compromised. Reports by international agencies attributed these developments in part to flaws in the regulatory framework for enterprises and financial institutions. Specific regulatory failures included the absence of an orderly and transparent market for transferable securities, lack of control over the activities of investment funds and their directors, and the urgent need for improved corporate governance. Companies and individuals acting without regard for regulations had caused prime capital market mechanisms, such as the Stock Exchange, to cease functioning in the accepted manner. The economy had been deprived of a crucial means for the efficient transfer of money from savings surplus units to savings deficit units, a fundamental requirement in ensuring the economic growth of any nation.<sup>51</sup>

Compliance Chain Ltd's A2E Model links the importance of maintaining the authority and public trust in regulators with pertinent characteristics of the target group. This model attempts to account for the fact that compliance outcomes are determined by the relationship between regulator and the person regulated (authority of the regulator/government; loyalty or disloyalty on the part of the target group) as well as by the knowledge of regulation, voluntary compliance with regulations, and the effects of legal controls and sanctions (deterrence). It also takes account of the fact that distortions and external events occurring outside the control of the regulator will have an effect on the ultimate failure or success of policy in terms of the actions of the target group. See Box 17 for a description of the A2E methodology and its use in the Czech republic.

**Box 17. The A2E methodology in the EBRD's Czech Capital Markets Reform Project**

*The A2E methodology:*

Key to resolution of the problem is the restoration of a compliance ethic internally within the Czech financial sector. In doing so, it is important to determine the dependency of compliance on unrelated external factors. The Project Team selected by EBRD accordingly based its approach on the A to E Model of compliance ("A2E") developed by Compliance Chain Limited. This model looks at the delivery of successful policy from the point of formulation to the point of compliance in terms of internal and external factors effecting the outcome (*c.f.*, Supply Chains, Value Chains).

The top level A2E factors are effectively links in the compliance chain, as shown below.

*A2E factors:*

**Authority** - Quality of the rule maker, rule-making process, and rules themselves.

**Behaviour** - Tendencies in groups and individuals.

**Controls** - Effect of supervision and enforcement activity.

**Distortions** - Within systems established to ensure compliance.

**External Events** - Impacting systems established to ensure compliance.

A feature of the model is that it can be used to establish relationships between compliance factors, target groups, appropriate responses, and outcomes. Over time, a knowledge base is assembled. A2E is also an asset allocation model which can be used to identify the cost-benefit of a given response (or combination of responses) for varying target levels of compliance. Table 1 illustrates how an initial ranking of compliance analysis priorities might be established on the basis of the marginal costs of compliance.

**Table 1. Illustrative A2E priority ranking**

<b>Factor</b>	<b>Priority Groups</b>	<b>Preferred Response</b>	<b>Priority (=Marginal Cost)</b>
<i>Authority</i>	Loyal/Disloyal	Negotiation	Low - Med
	Informed / Uninformed	Education	Low
<i>Behaviour</i>	Compliant / Non-compliant	Advertising	Low - Med
<i>Controls</i>	Deterred / Undeterred	More/less tolerance	Med - High
<i>Distortions</i>	Prepared / Unprepared	Public/private initiatives	Med
<i>External events</i>	Immune / Vulnerable	Early warning systems	Med

The Czech Project model will be used to assess attitudes towards compliance in target groups that, over the past ten years, have experienced extremes of control and deregulation. Using the output from surveys it will then be used to evaluate proposed regulatory changes and suggest how given levels of compliance can be designed into a new regulatory framework.

*Results/application of methodology:*

So far A2E has been used to assess the reputation risk impact of the CSC's current sanctions policy. Surveys are now underway of attitudes among listed companies, enforcers, and fund managers. Initial responses in the first group indicate that, far from being totally opposed to listing regulations, listed companies accept them provided they are evenly applied and there is help available to establish and, especially, maintain the necessary systems. Importantly, external events, *e.g.* the collapse of the Russian economy, appear to be widely regarded as a bona fide excuse for non-compliance – companies believe their equity is better allocated against such risks rather than for compliance measures. How the government can protect such companies is now seen as a valid compliance issue.

As a by-product, the surveys themselves, with the (for some unexpected) nature of the preliminary results, have already generated substantial interest in a more methodical approach to compliance analysis among regulators and the regulated alike. Growing appreciation of the subject as a co-operative venture rather than a zero sum game in itself is helping to relieve the tension between two traditionally opposed sides. This is in line with and endorses the EBRD's emphasis on the rule of law based on co-operation and consensus rather than confrontation.

*Source:* John Howell, Compliance Chain Ltd Consultants, United Kingdom.

## 2. TOOLS FOR *EX POST* EVALUATION: MONITORING COMPLIANCE TRENDS

Compliance-oriented regulation requires knowledge of compliance trends so that governments and regulators can identify and prioritise problem areas, and evaluate whether regulatory solutions have had the desired effect. The country responses to the PUMA request for information on regulatory compliance confirm that in the taxation area many countries collect data that can be used to calculate compliance rates and to assess the impact of regulatory interventions on compliance. However most governments find it difficult to collect aggregate and systematic data on compliance trends in other policy areas where there is not an easily measured quantitative outcome (*i.e.*, tax paid). Few governments and regulators have consistently collected compliance rates or assessed the effects of regulatory interventions on social phenomena over time. Yet it is also clear that in all countries compliance is an issue of public and political concern and of significance in the regulatory design process.

Reliable data on compliance trends over time are difficult to collect for a number of reasons. First, existing statistics on regulatory actions such as enforcement and inspections are an inadequate basis for drawing conclusions about compliance trends. Compliance rates cannot be derived from a focused or biased inspection programme and almost all current enforcement and/or inspection programmes are necessarily focused, biased, or not comprehensive for practical reasons. The Finnish Ministry of Justice points out that monitoring of regulatory compliance is nearly always selective, and that there is always a gap between the actual rate of non-compliance and non-compliance of which the authorities are aware.

A second reason is that regulatory inflation (growth in amount of regulation) and regulatory instability (changes in regulation) make it extremely difficult to draw conclusions about compliance trends over time. Actions or behaviours that were legal at one time become illegal at another so that the compliance goal post is continuously moving. Perceptions that rates of compliance are decreasing may reflect the fact that the amount or unpredictability of regulation is increasing over time, rather than that business is doing less to comply over time. It is possible that business compliance is increasing but that regulation is increasing or changing at an even greater rate, leaving a “compliance lag” that creates the impression (but not necessarily the reality) of less compliance. In other words, in a context of regulatory inflation, the overall rate of compliance can be falling even while the compliance “effort” by regulated enterprises is static or increasing.

Third, governments and regulators also face a host of technical and methodological problems with measuring regulatory impacts or effects. The time lag between rules and results can be significant. Impact measures are problem specific and therefore difficult to aggregate into overall compliance trends. Causality is usually impossible to prove and to desegregate from the effects of other factors (such as general economic conditions). The difficulty of measuring things that did not happen makes it particularly difficult to measure the impacts of regulations that prohibit or are aimed at preventing undesirable events.

Nevertheless, there are ways to overcome some of these problems and collect useful compliance data. Historically most regulators’ inspection methods were not based on random sampling techniques and therefore could not be used to develop statistically valid measures of compliance rates. The Florida Department of Environmental Protection (FDEP) is overcoming these difficulties in a variety of ways:

- Rather than random sampling, FDEP regulatory programmes that inspect all members of the target population within a definable time period can begin reporting statistically valid compliance rates for a time period once a cycle of inspections is complete. Here the universe of regulated entities within a certain target population or sub-population is

covered over a definable period and thus compliance rates can be determined exactly. This census approach to compliance rates is useful where the target population is only of a small size.

- With a larger target population it is necessary to use random sampling of populations and sub-populations. Facilities will be randomly selected to receive inspections so that a representative compliance rate can be generated for overall populations (*e.g.* Air Title V facilities) without having to inspect the entire group. In addition, sub-populations (*e.g.* recidivists in the Air Title V facility populations) or sub-classes of facilities will also be targeted, based on industrial sector, physical location, and other descriptive attributes. By comparing the resulting compliance rates, staff will be able to compare the risks between varying sub-populations against the population as a whole, as well as determining the population's impact on the environmental outcomes they observe. For example, assume that Florida regulates 1 000 Title V facilities; 1 000 Synthetic Minor facilities, and 1 000 Class B facilities and has only enough resources to conduct 1 200 routine compliance evaluations. Given the resource constraint and a desire to calculate compliance rates for each class of air source, the best means to proceed would be to conduct random inspections of each class. Accordingly, 400 facilities from each class for a total of 1 200 inspections would be chosen at random and inspected. Since the sample is randomly chosen and applied, the resulting rates are statistically defensible within a certain confidence interval and can be used to estimate compliance among the three larger facility classes.
- Once a compliance rate has been generated, an additional computation could provide an emission-based compliance estimate. For example, given a 95% compliance rate for Title V air facilities, one may assume that the programme is a success. However, a further degree of analysis may determine that the environmental impact of the 5% of facilities in non-compliance may be responsible for 50% of air emissions.
- Database revisions are necessary to make the above analysis a reality including converting the databases from activity based to facility based tracking, upgrading the facility sector and geographic data, and integration of data.<sup>52</sup>

There is little evidence that the monitoring of compliance trends is systematically carried out and used as input to improve regulations. Yet reasons for non-compliance, if analysed properly, can be useful to make enforcement efforts more effective. Enforcement agencies in the Netherlands have participated in a pilot project to monitor regulatory compliance in the areas of pesticides, trade in drug precursors (chemicals), and the abuse of subsidies for renting residential buildings. Different methods were used to measure the extent of compliance. In a survey, which also asked for reasons for (non-) compliance using the T<sup>11</sup> as an ordering principle, questions on non-compliant behaviour were posed to respondents using a randomised response technique which allowed them to answer anonymously. A parallel sample of the target group was inspected in the same period by the enforcement agencies to collect comparable non-compliance rates. The conclusion of this pilot project is that the combination of a survey using the randomised response technique and a selective inspection programme of the target group is a workable and promising method to monitor compliance. However, each regulation might need its own adjustments to such a general monitoring system.<sup>53</sup>

### 3. RESULTS-ORIENTED ENFORCEMENT MANAGEMENT

Compliance-oriented regulatory design must be implemented by compliance-oriented regulatory agencies. Regulations that are implemented and enforced by agency staff who are not held accountable for compliance outcomes, and managed to maximise outcomes are less likely to be effective in achieving their goals. Traditionally, however, regulatory agencies' performance and cost-effectiveness are managed and evaluated largely by reference to their level of activity, rather than the outcomes they accomplish. Valid measures of compliance rates and outcomes will give governments the capacity to evaluate regulatory agency performance by outcomes (*vis-à-vis* cost and activity), and to target agency resources towards where they are likely to be most effective.

It is possible to evaluate the performance of regulatory agencies by reference to several different factors:

1. Effects/Impacts/Outcomes: For example, environmental results, health effects, decline in injury rates.
2. Behavioural Outcomes: Compliance rates or other outcomes (*e.g.* adoption of best practice, other risk reduction activities, "beyond compliance" activities, voluntary actions).
3. Agency Activities/Outcomes: For example, enforcement actions; inspections (number, nature, findings); education/outreach; collaborative partnerships; administration of voluntary programmes; other compliance-generating or behavioural change inducing activities.
4. Resource Efficiency: With respect to use of agency resources; regulated enterprises' resources; state authority.<sup>54</sup>

Traditionally, performance measures for regulatory agencies have clustered around the measures in Category 3. Regulatory quality management broadens performance measures to Category 4. If governments are interested in evaluating whether regulatory agencies are actually achieving the policy objectives of regulations, then Category 3 and 4 performance measures must be supplemented by Category 1 and 2 performance measures. Relying on Category 3 and 4 measures alone does not account for qualitative differences in the effectiveness of various enforcement activities. Category 1 and 2 measures enable governments to hold agencies accountable for whether their activities are actually having any impact, and help governments to see whether their policy instruments are accomplishing anything.

The Florida Department of Environmental Protection (FDEP) is moving from activity-based (Category 3 and 4 measures) to outcome-based (Category 1 and 2 measures) management. This has required a complete change in measurement methodology, databases and management practice. Box 18 demonstrates some of the ways in which the FDEP has begun to experiment with measuring its own performance using outcome measures, and statistically valid compliance rates.

**Box 18. Evaluating regulatory agency performance in a compliance-oriented way: Florida Department of Environmental Protection**

For the past several years, the growth in environmentally regulated entities has greatly exceeded the growth of environmental regulatory agency budgets. In addition, the impacts, which are having the largest effect on the environment, have broadened to include unregulated impacts such as non-point source runoff. As a result, it is becoming increasingly difficult for environmental agencies to make environmental gains using strictly traditional approaches. In response, regulatory agencies are beginning to focus and manage for results by targeting their resources more effectively and building collaborative partnerships with outside stakeholders. This new management system mandates the development and use of outcome based measurement systems, so that questions such as “are we inspecting the right places at the right time” and “are our activities having a positive impact on the environment” can be answered.

*A new measurement system:*

Under the new measurement system, regulatory agencies are developing measures which track the outcomes of their activities and supply the contextual information needed to analyse changes in observed outcomes. For example, environmental agencies desire such outcomes as clean air and water. If an observed outcome is viewed as unsatisfactory, contextual information such as statistically valid compliance rates, consumer demand for products such as fuel and electricity, and the numbers and types of violations identified must be analysed to determine how best to make environmental improvements. The most effective solutions for resolving environmental problems will require the participation of both regulatory agencies and outside stakeholders. The goal is to identify environmental problems and the impacts that appear to be causing the greatest environmental harm as soon as possible so that the roles for each stakeholder can be identified. Roles for regulatory agencies include such activities as addressing non-compliance and conducting research while the roles for outside stakeholders include such activities as lowering energy usage and the implementation of Best Management Practices.

*A tiered set of measures:*

The Florida Department of Environmental Protection (FDEP) has developed a tiered measurement framework for measuring its environmental performance:

- Tier 1: Environmental indicators: Outcome information such as ambient air and water quality and tons of pollutants emitted.
- Tier 2: Behavioural outcome measures: Facility-based, statistically valid compliance rates, other behavioural measures such as the adoption of Best Management Practices, and citizen demand for natural resources and products that have an effect on environmental quality.
- Tier 3: Programme output measures: Activity counts such as the number of inspections and enforcement actions.
- Tier 4: Resource efficiency measures: Cost accounting information such as budget spending, economic impacts of regulatory programmes on regulated enterprises, and social costs imposed by pollutants.

*An example of Florida's New Measures in Action:*

For example, current measures (Tier 2 measures) show the significant compliance rate for Florida's Title V facilities (relating to air emissions) ranges from 92 to 100% and the average residential electricity usage has declined 328 kilowatt hours. Yet air monitors (Tier 1 measures) show that levels of nitrogen oxide are on the rise. Air inspection and enforcement activities remained constant (Tier 3 measures). In districts where 100% of facilities are in compliance, neither higher compliance nor more enforcement is going to reduce NOx levels. More enforcement would clearly not reduce NOx levels in districts where compliance was already at 100%. Reductions will only come about through voluntary beyond compliance steps taken by industry, a further reduction in the consumer demand for electricity or other products that cause facilities to emit nitrogen, or through legislative action to decrease the allowable level of NOx emissions. Using the different tiers of measures therefore allowed the FDEP to avoid useless or foolish actions. Had they only measured air quality and activity levels, they would have made the mistake of concluding more enforcement was necessary. Had they only looked at compliance rates and activity levels, they would not have realised there was an air quality problem and appeared ineffective. Only through using four tiers of information could the FDEP gain a more complete picture of the environment, thus enabling strategic targeting of resources to address identified environmental problems.

*Sources:* Darryl Boudreau, Office of Strategic Projects and Planning, Florida Department of Environmental Protection; Virginia Wetherell (1998), “Counting results,” *The Environmental Forum*, Jan/Feb, pp. 21-26.

The four tiers of measures used by the FDEP to evaluate its own performance are also published quarterly in the FDEP's Secretary's Quarterly Performance Report (SQPR). This permits external stakeholders to judge the regulators' performance for themselves, and helps them to make wise internal decisions about resource deployment and priorities. The Secretary and Deputy Secretary of the FDEP review the data in the SQPR to identify emerging environmental problems, trends and patterns of non-compliance, and designate "Good", "Watch" and "Focus" areas for the Department.

- "Good" areas are those in which an analysis of the tiered data indicates healthy or improving environmental conditions and high compliance rates. "Good" areas are distinguished by such characteristics as good air or water quality in Tier 1, high on-site inspection or monitoring compliance rates in Tier 2, and an appropriate number of inspections to verify compliance in Tier 3.
- "Watch" areas are those in which the data show a moderate cause for concern. For example, the compliance rate for regulatory standards in a particular district may be lower than the state-wide average or compliance rates may be low in a district but only minimal formal enforcement has been taken. Such situations suggest the presence of an emerging trend or pattern and require further investigation prior to taking specific action.
- "Focus" areas are those that need to be closely monitored due to concern about persistently low compliance rates or deteriorating environmental conditions. For example, if compliance rates are persistently low despite high enforcement, the agency may consider compliance assistance alternatives or implementation of best management practices. In "Focus" areas, managers have the flexibility and support to shift resources where they are most needed to resolve problems.
- Each programme that is responsible for a "Focus" or "Watch" area is required to develop an action plan to solve the identified problem. Action plans are proactive and designed to determine the root cause of problems and fix them. The new paradigm focuses on determining the root cause of violations and employing the compliance tool that best fits the reasons for non-compliance. If a root cause analysis results in a finding that 20% of violations are due to blatant disregard for environmental rules, 40% are due to vague rules, and 40% are due to a lack of understanding of requirements, then the FDEP would design an integrated response that clarified the rules, targeted enforcement activities, and provided compliance assistance. By matching the compliance tool to the reasons for violations, the effectiveness of each tool is maximised.



## Chapter 5

### SUGGESTIONS FOR RESULTS-ORIENTED POLICY

This report shows that the outcomes of regulation will depend on the quality of the regulation – from the definition of policy objectives to the means chosen to accomplish them, to how compliance is monitored and enforced. In order to draft and implement result-oriented policy, therefore, governments need to follow the guidelines already developed by the OECD in relation to high quality regulation. Indeed, the 1995 OECD *Recommendation on Improving the Quality of Government Regulation* sets out standards for regulatory quality that demonstrate the significance of compliance outcomes in the total design of regulatory systems. The principles start with identification of the problem that needs to be solved and end with an assessment of whether the system will deliver an outcome that actually provides a solution. The middle stages require governments and regulators to consider what actions (regulatory or non-regulatory) are most likely to actually achieve the goal identified. As these principles demonstrate, the assessment and encouragement of regulatory compliance is central to a focus on outcomes and regulatory goals.

Compliance considerations must be designed into policymaking and regulation from the beginning. Compliance issues cannot just be part of an enforcement strategy tacked on at the end of the policy-making process. *Ex ante* compliance analysis ensures that policymakers and regulators consider what policy objectives they actually want to achieve, whether it is feasible to achieve that, and if so, what is the best way to do so. It seeks to avoid reflexive rulemaking that accomplishes nothing. Once a rule is in place, *ex post* compliance analysis helps governments evaluate each rule and, based on whether it is doing the work it is supposed to be doing, determine whether it should be maintained, repealed, or amended. If the regulation is to be maintained, compliance analysis allows regulators to determine where resources such as information, advice, monitoring, and sanctions, should be targeted to achieve the desired policy objectives.

This report could form the basis for principles for compliance-oriented regulatory design that add detail to the OECD Recommendation. The following principles are proposed as a preliminary checklist applying to the design, implementation, and management of compliance-oriented regulation.

#### 1. RESULT-ORIENTED POLICY DESIGN

- *Problem identification and analysis*: Use data collection mechanisms and methodologies to systematically identify important hazards and risks (that may need to be the subject of new regulation) or patterns of non-compliance (that may indicate the need to amend existing regulations).
- *Identify feasible policy objectives*: Analyse the causes of the problems identified above. Identify potential solutions by data analysis and consultation with the target population and stakeholders. Involve enforcement officials into the policy preparation process at an early stage. Use this information to set achievable policy objectives.
- *Consider potential policy options including both regulation and alternatives to regulation*: Determine what regulatory options are available and whether there are any ways to meet the policy objective identified that do not rely on traditional regulation *e.g.* self-regulatory codes of conduct, voluntary agreements, management standards agreed between industry, government and stakeholders, third-party enforcement, economic incentives.

- *Design regulation to maximise the possibility for compliance:* Use information, as collected above, to ensure that the regulation or policy is designed to be as easy to comply with as possible. Take such steps in developing the regulation as using clear, transparent language; using standards or process regulations instead of command-and-control rules, if possible; not including rules that are impossible to monitor and enforce in practice; or providing alternative compliance mechanisms where possible. (This latter step necessitates determining how the regulation will be implemented and compliance monitored and enforced, as set out below.)

## **2. COMPLIANCE-ORIENTED REGULATORY DESIGN**

- *Provide rewards and incentives for high/voluntary compliance:* Where possible, make the regulatory burden lighter for enterprises that have a demonstrated record of compliance with the law and commitment to achieving the policy objectives of regulation. Make the burden lighter, for example, by reducing the burden of routine inspections, granting penalty discounts when minor lapses occur, simplifying licences and permits, providing indemnities for voluntary disclosure and correction of non-fraudulent non-compliance.
- *Nurture compliance capacity in business:* Provide technical advice and information to help enterprises, especially SMEs, to comply with regulation. Encourage and help train internal corporate compliance professionals in what regulators expect. Work with industry associations to educate industries of the benefits of compliance.
- *Dialogue and restorative justice when voluntary compliance fails:* When violations are detected, use restorative justice to build up the possibility for compliance if there is a way to remedy the situation and improve compliance for the future. Use dialogue, persuasion, and technical advice to help well-intentioned enterprises improve their compliance record.
- *Responsive enforcement when restorative justice fails:* Use (the threat of) penalties if they are likely to have a deterrent effect. Use punishments up to incapacitation, if necessary, when regulated entities repeatedly show they are unwilling to comply with reasonable regulations.

## **3. EVALUATE REGULATORY EFFECTIVENESS**

- *Monitor for non-compliance:* Use statistical modelling to determine compliance rates and risks for different sectors of the target population. Use tiering and targeting to selectively focus on high-risk non-compliance areas.
- *Monitor the impacts of regulation on outcomes and use this information to continuously improve regulatory performance:* Go back to Step 1 and start the process again, evaluating existing regulations to determine whether they are still necessary and still achieving their policy objectives.

- *Evaluate the performance of regulatory agencies by reference to the impact they are having on compliance outcomes:* Use the data collected to determine whether regulatory agencies are cost-effectively achieving policy objectives through careful management of agency resources. Do not depend solely on regulatory activity rates.

Incorporating these steps into regulatory design, implementation and review will require governments and regulatory agencies to develop a number of new capacities to process and manage compliance issues.

*Compliance Analysis Tools:* Compliance-oriented regulatory design and regulatory evaluation requires governments to develop sophisticated tools for analysing the compliance strengths and weaknesses of (existing or proposed) regulations, and for developing strategies for ensuring compliance with policy objectives. It is clear from the country responses to PUMA’s request for information on compliance issues that many governments are already beginning to design compliance considerations into the law drafting and evaluation process. Sharing of research and information between OECD countries can help develop sophisticated methodologies to do so. The T<sup>11</sup> and A2E case studies, described in this report, are useful models for central regulatory reform/regulatory quality units that wish to develop guidelines and tools for policy-makers and law-drafters to use in problem identification and analysis, the identification of feasible policy objectives, and making decisions about what regulatory or non-regulatory policies to put in place to achieve policy objectives. In Finland, a government programme to improve law-drafting is also requiring law-drafters to assess alternative means of achieving policy objectives to determine which is most likely to accomplish the desired result, to specify how implementation will be carried out in practice, and to monitor the effects of laws and amend them to ameliorate any undesired effects.<sup>55</sup>

- One of the key advantages of this kind of analysis in the policy preparation and design phase is to ensure policy-makers and law-drafters focus on a feasible policy objective before new policies are imposed and implemented. Compliance analysis shows whether a proposed regulation is likely to achieve an acceptable level of compliance, and if so, how this can most effectively be achieved. If a policy objective with an acceptable potential for compliance cannot be identified in relation to proposed or existing regulation, then that regulation should be repealed or amended.
- However, checklist-style compliance analysis tools such as the T<sup>11</sup> should be used carefully. A checklist may not adequately analyse the way different dimensions of the checklist interact with one another to increase or decrease compliance. For example, if there is little spontaneous compliance with a particular regulatory regime, then introducing very heavy controls and sanctions may make people resistant to the regulation and drive the problem underground, rather than increase overall compliance.
- Compliance analysis tools should also be sensitive to the fact that there will often be differing attitudes/groups within target populations. This means that a mix of policy instruments may be necessary to deal with both compliance “leaders” and “laggards”.

*Regulatory Impact Analysis:* The results of this report suggest that as a Regulatory Impact Analysis develops, it should evaluate a broad range of potential social and economic impacts of proposed regulations.

- For example, a sophisticated regulatory impact analysis will include analyses of the effects of estimated costs of compliance on actual compliance rates, not just a cost impact calculated on the assumption that enterprises will comply despite the costs.

- It would also include an analysis of the compliance rates that are likely to result from the interaction between the new regulation and the pre-existing economic and social circumstances and attitudes of the target population, and what implications this has for enforcement strategies and resources. This requires analysis of a broad range of issues including the social attitudes of enterprises to new regulation and their technological and informational capacity to comply.

*Compliance rate measurement methodologies:* One of the most important implications of this report is that if governments are to guard against compliance failures, it is important that they develop databases and methodologies for effectively measuring compliance rates. This information is also necessary if regulatory agencies are to be managed according to whether their programmes are achieving the objectives of their regulation.

- In order to determine a statistically valid rate of compliance, ideally a regulatory agency ought to be able to accurately identify and assess the compliance and non-compliance of the “universe” (entirety) of regulated enterprises in a particular area. Periodically regulatory agencies would need to abandon their selective monitoring and inspection strategies in order to inspect all regulated entities and thus develop valid compliance rates for the whole population of regulated entities. These would then be used to identify high-risk non-compliance areas, which could form the basis for targeted inspections in future years. This is the ideal, but in practice the costs of collecting the information will often exceed the benefits, because the costs of doing it well are usually quite high.
- Alternatively, regulatory agencies could use statistical modelling to develop random samples of various sectors of the target population for compliance assessment. These random samples could then form the basis for statistically valid implication of total compliance rates, as above.
- Often a more cost-effective way to gather useful compliance data is to conduct a “compliance experiment” on a smaller group of the target population. For example, it is easier to randomly assign companies to two different tax audit procedures and measure which brings in more tax and fewer appeals to the courts, than it is to measure overall rates of compliance and estimate the reasons for differences. In particular, this is a useful way of evaluating different regulatory strategies when a new programme is about to be introduced. A regulator could implement the programme for a segment of the target population first and measure its compliance/policy outcomes immediately before and after the new intervention.
- As illustrated in Box 18, above, ideally governments would collect not only statistically valid behavioural compliance rates, but also outcome data on the achievement of their ultimate policy objectives, *e.g.* air quality, total injury and morbidity rates at work, in order to determine whether compliance with the rules is contributing to accomplishments of policy objectives. Often these outcome measures are easier to collect than compliance measures.

*Communication between policy-makers and policy implementation agencies:* Compliance-oriented regulatory design, implementation and evaluation requires excellent two-way communication between those responsible in all stages of the chain of government action: problem analysis >> consideration of alternative solutions >> the choice and design of (regulatory) instruments >> *ex ante* impact assessment (including risk analysis) >> implementation >> enforcement >> *ex post* evaluation and compliance monitoring. Those involved in the chain should be aware of the interdependent nature of their responsibilities and actions, and the need for consistency and co-ordination. This is necessary because the substantive policy objectives of compliance-oriented regulation must be totally integrated

and consistent with the way the rules are enforced in practice. This means that policy-makers will need practical information about target populations and feedback on feasible regulatory strategies from those who implement the law. Those who implement the law, on the other hand, will need to understand well the objectives of the regulation in order to be focused on achieving that objective, not just enforcing isolated rules. If two way communication is present, then the target group's capacity to comply and pertinent enforceability criteria can be included in drafting directives for regulatory instruments at an early stage, and responsible ministries and agencies would also have information on programme delivery requirements available very early.

*Dialogue between governments and target populations:* Too often, government acts upon the false assumption that passing a law is sufficient by itself to create acceptance of, and compliance with, its policy. Poor quality regulation, regulatory procedures, and enforcement can cause serious compliance problems. A sophisticated compliance analysis of proposed or existing regulation implies a sophisticated understanding of the target population: What will make compliance difficult for them? What will motivate them to want to comply? What technical changes will compliance mean for their business or manufacturing processes? What financial impacts will compliance have? This level of understanding of a target population is unlikely to be achieved without significant consultation with, listening to, and research of members of target populations. Similarly, compliance-oriented implementation and enforcement requires regulators to spend a lot of time negotiating with and educating target populations, understanding why non-compliance occurs, and looking for practical ways to improve compliance. This too requires significant communication between regulator and target population so that each understands the other's goals and constraints. (Sometimes, of course, it also requires coercive action on the part of the regulator.) Where non-compliance is chronic, a government will frequently need to engage in further consultation and negotiation with the target group in order to solve the problem. This could mean that policymaking processes in the future would consist mainly of interactive working methods between the regulators and the regulated. With a growing awareness of compliance problems among member countries, such a compliance-friendly policy could evolve to a high level standard in OECD countries.



## NOTES

1. See for example Jacobs, Scott H., Rex Deighton-Smith, and Rebecca Buchwitz (1997), "Regulatory quality and public sector reform" in *The OECD Report on Regulatory Reform. Volume II: Thematic Studies*, Chapter 2, Paris, pp. 191-248.
2. Ten formal responses from six different countries were received by the final date for inclusion in this report. The Secretariat wishes to thank those who returned the surveys for their important contribution.
3. Majone, Giandomenico (1994), "The rise of the regulatory state in Europe," 17 *West European Politics*, p. 77, p. 81.
4. Jacobs, Scott H. (1992), *Regulatory Management and Reform: Current Concerns in OECD Countries*, OECD/PUMA Occasional Papers, Paris.
5. These three conditions were used in Glasbergen's Dutch research "het instrumentarium vraagstuk in het milieubeleid" (Problems of instrumentation in environmental policies) in 1987, and by Winter, H.B. in "evaluatie van het wetgevingsforum", (Evaluation of the law making arena), University of Groningen, 1998.
6. For example, since 1970 when the US Occupational Safety and Health Administration (OSHA) was created, the overall US workplace death rate has been cut in half. Since 1970, OSHA's cotton dust standard virtually eliminated brown lung disease in the textile industry, death from trench cave-ins declined 35%, and OSHA's lead standard reduced blood poisoning in battery plant and smelter works by two thirds. *Source: OSHA (1998), Success Stories*, <http://www.osha.gov/oshinfo/success.html>.
7. OECD (1997), "Improving regulatory compliance: Strategies and practical applications in OECD countries," by John Braithwaite, The Australian National University, published in Paris.
8. Baxt, R. (1992), "Thinking about the regulatory mix: Companies and securities and trade practices", in P. Grabosky and J. Braithwaite (eds.), *The Future of Australian Business Regulation*, Australian Institute of Criminology, Canberra; Majid, A., Keong, L. C. & Arjunan, K. (1998), "Company directors' perceptions of their responsibilities and duties: A Hong Kong survey" 28 *Hong Kong Law Journal*, pp. 60-89.
9. OECD (1998), "PUMA multi-country business survey: benchmarking the regulatory and administrative business environment: Draft report on the results for Sweden," Paris, pp. 8-9.
10. "Rapport Public 1991" (1992) of the Conseil d'État, *La Documentation française*, Paris.
11. Genn, H. (1993), "Business responses to the regulation of health and safety in England" 15, *Law & Policy* pp. 219-233, p. 227.
12. See OECD (1997), *Regulatory Impact Analysis: Best Practices in OECD Countries*, Paris.
13. However, see the annex to this paper for a discussion of the circumstances in which this assumption holds true.

14. National Tax Board of Sweden, response to PUMA request for information.
15. Overly legalistic regulation can also make compliance too costly and regulation too complex to know and understand.
16. Bardach, E. & Kagan, R. (1982), *Going By the Book: The Problem of Regulatory Unreasonableness*, Temple University Press, Philadelphia, p. 107.
17. J.G. Andersen (1998), "Citizens and the law", News From the Rockwool Foundation Research Unit No. 3, p. 1.
18. Braithwaite, J. (1985), *To Punish or Persuade: Enforcement of Coal Mine Safety*, State University of New York Press, Albany; Makkai, T. & Braithwaite, J. (1993), "Praise, pride and corporate compliance," 21 *International Journal of the Sociology of Law*, pp. 73–91.
19. Ayres, I. & Braithwaite, J. (1992), *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York, p. 25.
20. Bergman, M. (1998), "Criminal law and tax compliance in Argentina: Testing the limits of deterrence," 26 *International Journal of the Sociology of Law*, pp. 55-74.
21. Braithwaite, J. & Braithwaite, V. (1995), "The politics of legalism: Rules versus standards in nursing-home regulation," *Four Social & Legal Studies*, pp. 307–341.
22. OECD (1997), "OECD environmental action programme for Central and Eastern Europe," Report of the EAP Task Force to the "Environment for Europe" Ministerial Conference, Sofia, Bulgaria, 23-25 October. See also OECD (1998), *Sustainable Institutions for European Union Membership*, Sigma Papers No. 26, Paris.
23. Quinlan, M. (1998), "The implications of labour market restructuring in industrialised societies for occupational health and safety," mimeo, University of New South Wales, Sydney, Australia, p. 3.
24. Gray, W, & Scholz, J. (1991), "Analysing the equity and efficiency of OSHA enforcement," 13 *Law & Policy*, pp. 185-214.
25. US Department of Labor, Bureau of International Labor Affairs (1996), *The Apparel Industry and Codes of Conduct: A Solution to the International Child Labor Problem?*
26. Kinsey, K. (1992), "Deterrence and alienation effects of IRS enforcement: An analysis of survey data" in Slemrod, J. (ed.), *Why People Pay Taxes*, University of Michigan Press, Ann Arbor.
27. Coffee, J. (1981), "No soul to damn: No body to kick: An unscandalized inquiry into the problem of corporate punishment," 79 *Michigan Law Review*, pp. 386-459.
28. Australian Tax Office (1998), "Improving tax compliance in the cash economy: Cash Economy Task Force Report".
29. National Tax Board of Sweden, response to PUMA request for information on regulatory compliance.
30. Finnish Ministry of Finance, response to PUMA request for information on regulatory compliance.
31. Mitchell, R. (1994), *Intentional Oil Pollution at Sea: Environmental Policy and Treaty Compliance*, The MIT Press, Cambridge, Massachusetts 171ff.

32. See generally OECD (forthcoming) *Improving the Cost-Effectiveness of Government: Innovative Policy Instruments*, Paris.
33. OECD (1997), *Improving the Cost-effectiveness of Government: Innovative Approaches to Command-and-Control Regulation*.
34. Wilkinson, D. (1997), "Improving the Cost-Effectiveness of Government: Innovative Approaches to Command-And-Control Regulation, Draft report", Public Management Service, OECD (1997), Occasional Papers No. 18, *Co-operative Approaches To Regulation*, Paris, OECD (1997), *Putting Markets To Work*, Occasional Papers No. 19, Paris.
35. This experience is discussed in OECD (1998) *Putting Markets to Work: The Design and Use of Marketable Permits and Obligations*, Paris. See also OECD (1996) *Integrating Environment and Economy: Progress in the 1990s*", Paris.
36. See OECD (1999) *Regulatory Reform in the United States*, Paris.
37. OECD (1997), Public Management Occasional Papers No. 18, *Co-operative Approaches to Regulation*, Paris, pp 13-20.
38. Gunningham, N. (1998), "Environmental management systems and community participation: Rethinking chemical industry regulation," mimeo, Australian Centre for Environmental Law, Faculty of Law, Australian National University.
39. Author's interview at Australian Greenhouse Office, 1998 and 1999.
40. See Gunningham, N. (1998), "Environmental management systems and community participation: Rethinking chemical industry regulation," mimeo, Australian Centre for Environmental Law, Faculty of Law, Australian National University.
41. See Chenok, Dan (1997) "Flexibility through public-private partnerships: Prevention and harmonisation in FDA's seafood HACCP regulatory alternative," published in OECD Public Management Occasional Papers No. 18, *Co-operative Approaches to Regulation*, Paris.
42. Harvard Law Review (1996), "Growing the carrot: encouraging effective corporate compliance," 109 *Harvard Law Review*, 1783-1800; Price Waterhouse LLP (1997), *1996 Survey of Corporate Compliance Practices*, Price Waterhouse, New York.
43. Weinberg, Judith (1996), "OSHA consultation: A voluntary approach to workplace safety and health compliance," 5(2) *Corporate Conduct Quarterly*, pp. 21-24.
44. Danish National Working Environment Authority response to PUMA request for information.
45. IMRO (1997), Regulatory Plan 1996-1997.
46. Braithwaite, J., "Restorative justice: Assessing an immodest theory and a pessimistic theory" *Crime and Justice - A Review of Research*, forthcoming.
47. Measurements of a number of other dimensions of restorative justice were made in other papers from the same study e.g. Makkai, T. & Braithwaite, J. (1993), "Praise, pride and corporate compliance" 21 *International Journal of the Sociology of Law*, pp. 73-91; Makkai, T. & Braithwaite, J. (1994), "The dialectics of corporate deterrence," 31 *Journal of Research in Crime & Delinquency*, pp. 347-373.

48. Braithwaite, J. (1985), *To Punish or Persuade: Enforcement of Coal Mine Safety*, State University of New York Press, Albany. See the annex to this paper for a series of studies that address this issue.
49. From Ayres, I. & Braithwaite, J. (1992), *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York, p. 51.
50. Information on the T11 was supplied by Dr. Dick Ruimschotel, PO Box 2681, 1000 CR Amsterdam. Ph. +31 20 520 0 420, Fax: +31 20 520 0 421.
51. Information on the A2E methodology and the Czech capital market reforms was supplied by John Howell of Compliance Chain Ltd. Consultants, UK, jh@compliance.u-net.com. The author wishes to thank the EBRD for permission to use this information.
52. Darryl Boudreau, Office of Strategic Projects and Planning, Florida Department of Environmental Protection.
53. "Monitoring policy laws, design and experiment" (Monitoring beleidsinstrumentele wetgeving, ontwerp en experiment), Inspectorate of Law enforcement, Ministry of Justice, The Netherlands, 1996.
54. From Sparrow, M. (1996), "Regulatory reform: Lessons from the innovations awards programme," mimeo, John F. Kennedy School of Government, Harvard University.
55. Finnish Ministry of Justice response to PUMA request for information on regulatory compliance.

**ANNEX:**

**SUMMARY OF SCHOLARLY LITERATURE ON REGULATORY COMPLIANCE**

## **1. INTRODUCTION: TWO MEANINGS OF COMPLIANCE**

### **1.1. *Introduction***

“Compliance” in the scholarly literature on regulation is used in two main ways. The basic meaning (meaning 1 below) focuses on target populations of regulation, the extent to which they comply with regulation, and why they do so. A second usage of the word has developed out of a focus on regulatory agencies, what styles of regulatory enforcement strategies they use, and what styles they should use. In this second usage compliance describes a co-operative, persuasive style of regulatory enforcement in a debate that pits deterrence against compliance as normative ideals for regulatory enforcement. As this review will show, this second meaning is now becoming outmoded, as researchers discover that high compliance with regulation is achieved via a pragmatic and holistic approach to regulatory design that uses a mix of regulatory strategies to achieve compliance.

### **1.2. *Compliance 1: Description and explanation of obedience of target populations to regulation***

Regulatory compliance is defined here as obedience by a target population with regulatory rules or with government policy objectives.

The scholarly literature in this category focuses on descriptions of rates and trends in regulatory compliance, and explanations of why people comply. It attempts to answer the following questions: To what extent do people and enterprises obey the rules? And, what explains whether people and enterprises do or do not comply with law/regulation? The focus of this strand of compliance theorising is on the target population.

Different strands of social science take different approaches to this question. For example, law and economics scholars look at cost-benefit calculations re compliance and thus focus on deterrence and costs of compliance (*e.g.* Becker 1968; Stigler, 1970). Sociological scholars tend to look more at social norms and what makes them binding within social groups (*e.g.* DiMento, 1989; Vaughan, 1996; Schwartz & Orleans, 1967). Psychologists might look at individual traits and small group psychology to explain rebellion and conformity (*e.g.* Brehm & Brehm, 1981; Jenkins 1994).

Although this usage of compliance is basically descriptive, explanations of why compliance occurs clearly have important implications for normative debates about how regulation should be designed.

### **1.3. *Compliance 2: A co-operative, persuasive style of regulatory enforcement strategy***

Compliance has acquired a second specialist meaning, which is slightly at odds with the first meaning. It focuses on the approach of the regulator, rather than on the response of the target population. This usage of the term “compliance” refers to a particular regulatory approach to securing compliance that relies primarily on persuasion and co-operation, rather than on legal sanctions and punishment.

This meaning of “compliance” arose out of a number of studies of how regulatory officials actually enforce the law. These studies found that, particularly in the UK, regulatory officials generally prefer to use strategies of education, persuasion, and co-operation to persuade businesses to voluntarily and preventively comply with regulatory rules in the first instance (e.g. Braithwaite, 1985; Hawkins, 1984; Hutter, 1997), rather than to use adversarial and punitive means to sanction non-compliance.

These descriptive findings developed into a major normative debate about how regulatory agencies should approach enforcement (see Hawkins, 1990; Pearce & Tombs, 1990; Hopkins, 1994, pp. 431-432). In this debate compliance is an enforcement strategy distinct from deterrence (see below).<sup>1</sup> “Compliance” is identified solely with co-operative, persuasive, and self-regulatory strategies.

Normative theory about how regulatory policy ought to be designed and descriptive theory of what explains existing rates of compliance are very much mixed together in this usage of compliance.<sup>2</sup>

In order to avoid confusion, this review will not use “compliance” to refer to this specific style of regulatory enforcement strategy. Rather co-operative, persuasive enforcement will be specified if that is what is meant.

#### **1.4. Outline of this review**

Research on the explanations for compliance, particularly on deterrence is now broadening our understanding of why individuals and enterprises comply with the law. The second part of this literature view outlines the research that shows the limits of deterrence as an explanation for compliance, and the other factors that have been found to affect compliance. This research breaks down the simplistic assumptions that were the basis for the debate between whether punitive or co-operative/persuasive regulatory enforcement strategies are more effective. Scholars of compliance are now recognising that a more holistic, pragmatic approach that contextually mixes regulatory strategies is generally likely to be more effective at accomplishing compliance. The third part of this review outlines some of the research examining what mixes of regulatory strategies are most likely to accomplish good compliance rates. The fourth part of the paper picks out a number of themes that are emerging in the current research on compliance and that are likely to spark the debates of the future. A central theme of the current research is “regulatory pluralism” – the involvement of other parties in regulation including regulated enterprises themselves as well as third parties, including markets and institutions of civil society (such as professions).

- 
1. For example, Friedrichs (1995), p. 284, distinguishes “compliance” which uses persuasion and co-operation from “deterrence” which involves prosecution and punishment. Baldwin, Scott and Hood (1998), p. 18, quote Reiss’ (1984), distinction between “‘compliance’ approaches which emphasise the use of measures falling short of prosecution in order to secure compliance and ‘deterrence’ approaches which rely on penalising violators so as to deter future violators.” (See also Hawkins (1984), “compliance” versus “sanctioning” approaches; Hopkins, 1994, pp. 431-432).
  2. In the debate between Pearce and Tombs (1990, 1991) and Hawkins (1990) in the pages of the *British Journal of Criminology*, there was controversy over whether Hawkins’ descriptions of “compliance” regulatory inspection styles were intended to be taken as normative models and whether he was advocating that such strategies should be relied on as a sole enforcement strategy.

## 2. REASONS FOR COMPLIANCE: DETERRENCE AND OTHER EXPLANATIONS

### 2.1. *The traditional deterrence approach*

Traditionally the deterrence approach assumes that enterprises will only do “the right thing” to the extent it is in their self-interest to do so. For example, critical theorists, Pearce and Tombs (1990, 1997, 1998) argue that since all corporations have profit-maximisation as their main goal, they will always be “amoral calculators” who only ever comply with regulatory requirements when the penalties are heavy enough to ensure their calculations come up with the correct answer. Law and economics theorists see compliance as the outcome of an equation of the benefits of non-compliance versus the probability of being discovered and punished, and the severity of the penalty (*e.g.* Becker, 1968; Cooter & Ulen, 1988, p. 533ff; Stigler, 1970; see Ogus, 1994, pp. 90-92 for a summary). On the whole the assumption is that deterrence motivates via fear of punishment or rational calculations of the potential cost of penalties or sanctions.

### 2.2. *Problems with simple deterrence theory*

While the deterrence approach holds some attraction as an explanation of how regulated enterprises decide whether to comply, it is also now clear that it will only apply in very narrow circumstances. One of the leading empirical researchers of deterrence and business regulation (Scholz, 1997; see also Aalders & Wilthagen, 1997) has argued that the basic model of deterrence is only valid when the following assumptions are true:

- Corporations are fully informed utility maximizers.
- Legal statutes unambiguously define misbehaviour.
- Legal punishment provides the primary incentive for corporate compliance.
- Enforcement agents optimally detect and punish misbehaviour given available resources.

Scholz (1997), and other researchers, have concluded from empirical tests of the deterrence model that mostly these assumptions do not hold true, and that a simple model of deterrence is therefore mostly not a helpful explanation of what motivates organisations to comply with the law.

One reason for this is that regulatory agencies are often not as powerful and efficient as they would need to be in order for deterrence to work. It is well established in deterrence research that the deterrent effect of sanctions will depend on their certainty, severity, celerity, and uniformity, especially certainty (DiMento, 1989, p. 225; Friedrichs, 1996, p. 342f). Another reason is that because so many kinds of business law-breaking have high rewards and low penalties, the threatened application of sanctions is not a severe enough threat to deter non-compliance (Coffee, 1981; Ogus, 1994, p. 93).<sup>3</sup>

In order to cope with these realities, researchers have abandoned the simple economic model of deterrence as an explanation for compliance in favour of a more sophisticated analysis of how deterrence works, and how it interacts with a number of other factors that also affect compliance.

---

3. To overcome this problem, some scholars have explored alternative sanctions to normal fines *e.g.* equity fines, publicity, corporate probation, etc. See Coffee 1981.

### 2.3. *Bounded rationality*

The research has shown that, contrary to the assumption that corporations are fully informed utility maximizers, economic costs of non-compliance which do not draw attention to themselves by generating some kind of crisis are often overlooked by busy management (see Hopkins, 1995, pp. 88-95).

For example, Scholz and Gray's (1990; see also Weil, 1996) very comprehensive research into the effectiveness of OSHA enforcements found only a modest reduction in injury rates in all plants following an increase in enforcement activity.<sup>4</sup> However individual plants that were inspected and penalised experienced a 22% decline in injuries over the next three years, despite extremely low average fines. The fact that they have been inspected and penalised in a particular year should not have affected the probability and cost-benefit calculations of those firms penalised if they had been acting purely rationally, although it might have a general deterrent effect on the whole population. Scholz and Gray conclude that imposing penalties results in improved safety for these particular firms because the imposition of a penalty focuses managerial attention on risks that would otherwise have been overlooked. Normally, the "bounded rationality" of organisations and top management - the limited capacity of people and organisations to process information in decision making (March & Simon, 1958, p. 169) - means that many do not make rational cost-benefit calculations about compliance at all. It is only when something happens to bring the risks of non-compliance to their attention, that deterrence becomes effective.

In her investigation of health and safety programmes in UK companies Genn (1993, p. 223) finds that it is "when there is a potential for a catastrophe of either an economic or political nature, and also where companies are large, well established, highly visible and thus mindful of their public image" that they are more likely to have an occupational health and safety system in place. Similarly, McCaffrey and Hart (1998, p. 87) find that in the wake of major regulatory scandals in their industry, firms will make heavier investments in compliance than they otherwise would have, suggesting that the deterrent threat of enforcement is much more effective when a major scandal draws it to people's attention.

### 2.4. *The effects of negative publicity*

The research on deterrence also shows that when individuals or management do think about the disadvantages of non-compliance, they do not make a simple calculation based on the direct economic costs of non-compliance. Rather other factors, particularly the indeterminate costs of bad publicity on the firm's reputation and morale are very significant. This contradicts the basic premise of deterrence theory that the size of the expected financial penalty directly relates to the level of compliance.

For example, Scholz and Gray (1990) found that although workplace safety in plants inspected by OSHA improves after penalties are imposed, the size of the penalty has little impact on safety improvements (indeed most of the penalties were very low). Davidson *et al* (1995) measured the stock markets' reaction to OSHA announcements of sanctions on the companies receiving them (adjusting for overall stock market movement). The study found a stock market decline average of -0.46% on the days immediately before and after the announcement. However they could find no relationship at all between the size of the fine and the stock market reaction, suggesting that negative publicity was the important factor. Fisse and Braithwaite (1983) studied the impact of publicity on corporate offenders in seventeen high profile cases in great detail. They found that "Adverse publicity

---

4. A 10% increase in enforcement activity would decrease injury rates by only 1%.

is of concern not so much by reason of its financial impacts but because of a variety of non-financial effects, the most important of which is loss of corporate prestige” and that “corporations fear the sting of adverse publicity attacks on their reputations more than they fear the law itself” (Fisse & Braithwaite, 1983, pp. 247, 249).

Indeed a series of studies have found that maintaining or advancing the corporate reputation and counteracting negative publicity is an important reason for enterprise interest in ensuring compliance (e.g. Bardach & Kagan, 1982, p. 164; Genn, 1993; Parker, 1999a, but cf Haines, 1997, pp. 188-190). It appears that, even where regulators only have small penalties at their disposal, actual, or potential bad publicity can overcome bounded rationality, put compliance issues on management agendas and improve compliance rates.

### **2.5. *Informal sanctions and shame***

The evidence also suggests that in general informal sanctions have a greater deterrent impact than formal legal sanctions (Ekland-Olson *et al*, 1984; Paternoster & Simpson, 1996; Tittle, 1980, p. 241), and that regardless of what kind of social control is attempted it is not its formal punitive features that make a difference, but its informal moralising features (Schwartz & Orleans, 1967).<sup>5</sup> Informal sanctions include negative publicity, public criticism, gossip, embarrassment, and shame. Formal sanctions are official sanctions such as fines, compensation, licence revocations and restrictions and prison sentences. There is however an interaction effect: formal sanctions will often trigger informal sanctions such as bad publicity.

The “restorative justice” approach to dealing with corporate law-breaking relies on the effectiveness of shame and informal sanctions to reduce non-compliance (Braithwaite, 1999). Box 15 in the main paper on *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance* details some of the research in this area which demonstrates the effectiveness of restorative justice in certain circumstances (see Makkai and Braithwaite, 1994a, 1994b; Rees, 1994).

### **2.6. *The significance of maintaining legitimacy***

Another body of research that is very consistent with the research on the effects of informal sanctions, negative publicity and shame shows that many enterprises are often motivated to comply with the law, or at least to appear to comply, in order to maintain their legitimacy in the eyes of government, industry peers, and the public. This body of research suggests that the possibility of fines, sanctions, and inspections acts less as a deterrent threat than as a way to focus management attention on institutional expectations that may affect the legitimacy and operation of their enterprise. This is the concern of the “new institutional” scholarship in economics, political science, and organisational theory (Scott, 1995). “New institutional” theory in economics, for example, attempts to recognise that individuals and enterprises do not always make decisions solely on the basis of financial calculations, but a variety of other social and environmental factors including their own values and the expectations of others will affect their actions. As Suchman and Edelman (1997, p. 919) explain it,

---

5. See Braithwaite (1989), pp. 69-70, for a summary of the literature.

*Institutional factors often lead organisations to conform to societal norms even when formal enforcement mechanisms are highly flawed. Frequently cited institutional influences include historical legacies, cultural mores, cognitive scripts, and structural linkages to the professions and to the state. Each, in its own way, displaces single-minded profit-maximisation with a heightened sensitivity to the organisations embeddedness within a larger social environment.*

This does not mean that financial and legal considerations are not important, but that they are not the sole explanation for organisational action. DiMaggio and Powell (1991) have described three forms of “institutional isomorphism” that explain how organisations adopt practices and structures from their social environments beyond what is strictly required by the technical and financial parameters under which they operate: “mimetic isomorphism” occurs when organisations copy the apparently successful practices of other, similar organisations; “coercive isomorphism” occurs when organisations submit to the demands of powerful external actors, such as the regulatory agencies of the state; and “normative isomorphism” occurs when organisations import the practices of professionals and other organised value carriers. Each of these mechanisms can mean that enterprises adopt compliance even when it is not strictly in their financial interest.

There is a growing body of empirical evidence that this theory does help explain corporate compliance with regulation. Edelman and various co-authors (Dobbin *et al.* 1988; Edelman, 1990; Edelman *et al.*, 1993) have used neo-institutional theory to explain the growth of employee due process rights designed to protect against indiscriminate firing, safety violations, unequal discipline, sexual harassment, and discriminatory employment opportunity structures in US companies. Hoffman’s (1997) study of corporate environmentalism in the US petroleum and chemicals industry uses neo-institutional theory to explain why the growth in corporate attention to environmental issues did not follow trends in volume of new environmental laws and regulations nor growth in industrial expenditure on environmental issues as deterrence theory would predict, but rather rose and declined with public concern with environmentalism (see Hoffman, 1997, p. 144). Similarly, Rees’ (1997) study of the emergence of the US Chemical Manufacturers’ Association, Responsible Care, self-regulatory programme also finds that it was the imperatives of institutional legitimacy that forced chemical companies to regulate themselves after the Bhopal accident, rather than a simple model of deterrence (see also Heimer, 1996, for an application of neo-institutionalism to health care regulation).

However, a number of the scholars who have researched in this area have pointed out that often a concern with legitimacy can motivate enterprises to manage their image of compliance, without necessarily complying substantively with the requirements of the regulation (*e.g.* Edelman *et al.*, 1993; Shearing, 1993, pp. 75-76).

## **2.7. Co-operation and trust**

The basis for the theory that co-operative, persuasive regulatory enforcement strategies should be used rather than punitive ones (see compliance meaning 2 above) is the assumption that most individuals/businesses are “ordinarily inclined to comply with the law, partly because of belief in the rule of law, partly as a matter of long-term self-interest” (Kagan and Scholz, 1984, p. 67; see also Bardach and Kagan, 1982, p. 66). However this claim is often based on anecdotal rather than systematic evidence and seems to depend partially on defining being “in compliance” as being *substantially* in compliance, and ignoring smaller ongoing violations (*cf* Brown, 1994).

Nevertheless, some impressive evidence has been collected by researchers which shows that, although co-operative and persuasive strategies are not always appropriate, when they are successful they are superior to punitive sanctions in effectively and efficiently accomplishing long term compliance. A large body of empirical sociological and psychological research converges on the finding that non-coercive and informal alternatives are likely to be more effective than coercive law in achieving long term compliance with norms, and coercive law is most effective when it is in reserve as a last resort. For example, there is significant psychological evidence for a “minimal sufficiency principle” that the less powerful the technique used to secure compliance, the more likely is long term internalisation of a desire to comply. Such internalisation is discouraged by the use of rewards and punishments; reasoning and dialogue promote it (Boggiano *et al.*, 1987; Kohn, 1993; see also Brehm & Brehm, 1981).<sup>6</sup> Thus Honneland (1998) found that compliance can be secured despite weak sanctions through “discourse” persuasion and co-operation at the enforcement level among fishermen in the Svalbard restricted fishing zone. Braithwaite, Makkai, Braithwaite, and Gibson’s programme of research on nursing home regulation is probably the most systematic quantitative empirical study of regulation and compliance conducted to date. Results from this study shows that co-operative strategies of trust, restorative shaming, and praise are more effective at increasing business compliance with regulation than the application of formal sanctions (Braithwaite & Makkai, 1991, 1994, Makkai & Braithwaite, 1993, 1994a, 1994b).

A noteworthy theme of this research is the importance of trust in securing compliance. In a famous book, Francis Fukuyama (1995) argued that capitalism needs trust to work efficiently and effectively. A number of social researchers now find trust to be an essential resource in all sectors of society (*e.g.* Putnam 1993). This is especially important in relations between regulators and regulatees. Trust between regulator and regulatee simultaneously builds efficiency and improves the prospect of compliance. If regulatees trust regulators as fair umpires who administer and enforce laws or regulations that have important substantive objectives, then the evidence is that compliance will be higher, and resistance and challenges to regulatory action will be low (see DiMento, 1989, p. 225). For example Scholz and Lubell (1998; see also Levi, 1988) found that tax compliance increases as trust toward the government increases and also that the sense of duty to pay taxes increases when government policies prove beneficial to the taxpayer. If regulatees feel that regulators treat them as untrustworthy, then defiance and resistance build up so that inefficiency and non-compliance both increase (see V. Braithwaite, 1995; Paternoster, *et al.*, 1997; Sherman, 1993).

However, it should also be noted that most accounts that find people to be compliant in response to co-operation, goodwill and trust also find that deterrence is necessary as a back-up for the minority of organisations that do not voluntarily comply (see discussion of pyramids below). They also find that co-operative compliance is generally contingent upon persuading those of goodwill that their compliance will not be exploited by free riders who will get away with the benefits of non-compliance without being held to account for it (see Levi, 1988; Scholz, 1997, p. 262). Thus deterrent and punitive sanctions must still be available in the background.

---

6. See Ayres & Braithwaite, 1992, pp. 49 - 51, for a summary of the psychological research.

## **2.8. *Effective motivations for compliance vary among people and contexts***

The strands of research summarised above give us a more complex picture of what motivates people to comply with regulation than the simple deterrence model. This picture is further complicated by the finding that effective motivations for compliance vary between persons and contexts. There are a wide variety of motivations likely to apply in different enterprises, in different parts of the same enterprises and at different times in the same enterprise.

Paternoster and Simpson (1996) looked at intentions to commit four types of corporate crime by MBA students, and found that these intentions were affected by sanction threats (formal and informal), moral evaluations and organisational factors. They find that where people do hold personal moral codes, then these will be more significant than rational calculations in predicting compliance. If moral inhibitions are high then cost-benefit calculations are virtually superfluous. But when moral inhibitions are low, then deterrence became relevant. Similarly Fisse and Braithwaite (1983, 1993) find that companies will frequently be responsive to weak sanctions including publicity and shame because there are usually a variety of actors associated with any wrongdoing. Some will be “hard targets” who cannot be deterred even by maximum penalties. But others will be “vulnerable targets” who can be deterred by penalties, and still others will be “soft targets who can be deterred by shame, by the mere exposure of the fact that they have failed to meet some responsibility they bear, even if that is not a matter of criminal responsibility.” (Fisse & Braithwaite, 1993; p. 220). Differing motivations and responses will also be partially determined by economic circumstances and place in the structure as well as by individual dispositions of particular corporate managers. A consistent research finding is that larger enterprises are more likely to implement compliance systems and to be more compliant than smaller enterprises (*e.g.* Ashby & Diacon, 1996; Genn, 1993; Haines, 1997).

## **2.9. *Summary***

In summary the picture of the organisation as an amoral calculator moved by appropriate deterrence to ‘do the right thing’ must be supplemented by the facts that organisations can sometimes be persuaded to do the right thing, that some influential actors within organisations will be highly motivated to be legal or socially responsible for its own sake, that the existence of deterrence threats will not necessarily be a feature of daily decision making, that many organisations will behave in ways that they feel maintain their legitimacy in the eyes of industry peers, customers or governments irrespective of individual cost and efficiency calculations, and that even where formal sanctions are applied, it is their informal ramifications (shame and negative publicity) that are more effective motivators.

## **3. COMPLIANCE AND MIXES OF REGULATORY STRATEGIES**

### **3.1. *A more holistic, pragmatic and outcome-oriented approach to understanding compliance***

These developments in research on deterrence and compliance have led to a more holistic, pragmatic, and outcome-oriented approach to regulatory research: many contemporary regulation scholars are *pragmatic* in the sense that they use empirical evidence about what is likely to work, rather than being guided purely by ideological positions about what form of regulation is most desirable. Scholarly interest has turned towards research that evaluates alternatives to traditional “command-and-control strategies” that relied on a simple theory of deterrence. In particular this research takes a more *holistic* approach towards regulation and examines the effectiveness of mixes of

regulatory strategies that will utilise the complexity and variety of motivations underlying compliance (as summarised above). This type of research is also extending beyond looking at regulatory enforcement strategies to the impacts on compliance of total regulatory design. The result is a more *outcome-oriented* approach to the study of regulatory compliance. The emphasis is on the substantive policy objectives of the regulation, and whether the regulatory policy instruments chosen are capable of accomplishing those objectives, not on compliance with rules that may or may not be effective at achieving the desired result.

### 3.2. *Pyramids of regulatory strategies*

The most influential theory of the optimal mix of regulatory strategies is Ayres and Braithwaite's (1992) pyramid of enforcement strategies. In their book, *Responsive Regulation*, Ayres and Braithwaite demonstrate why this pyramid of regulatory strategies is an effective and efficient approach to accomplishing compliance with policy objectives on the basis of empirical psychological and sociological evidence, as well as economic and political modelling and game theory. The pyramid is a schematic representation of the idea that instead of using their most drastic regulatory strategies first, regulators should trade on the goodwill of those they are regulating, encouraging them to comply voluntarily, using more drastic regulatory measures only when that fails and reverting to a trusting demeanour when these strategies achieve their goal: "Compliance is optimised by regulation that is contingently co-operative, tough and forgiving" (Ayres & Braithwaite, 1992, p. 51). In this model prioritising restorative, compliance-oriented means of regulation in time ensures that co-operative, voluntary measures are used more frequently without compromising the possibility of using harsher measures where necessary. (See Section 2.5 in the main paper on *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance*.)

These principles apply not only to individual regulatory encounters, but also to the development and imposition of regulatory schemes for whole industries. Thus the theory posits that governments will be more successful in achieving their goals of regulatory reform if they allow an industry the discretion and responsibility to implement self-regulatory reform first, rather than moving straight to imposed command regulation.

An impressive array of research supports Ayres and Braithwaite's basic premise that it is more effective to maximise self-regulatory possibilities for business by using less coercive, more dialogic methods of regulation first and more coercive measures only when less coercive means fail. Braithwaite's own research programme with various co-authors has demonstrated and evaluated the relevance of the pyramid as an explanatory heuristic in a variety of substantive regulatory arenas including coal mine safety, pharmaceutical safety, and nursing home regulation (*e.g.* Braithwaite, 1984, 1985; Grabosky & Braithwaite, 1986; Braithwaite & Makkai, 1991, 1994). A number of other researchers have also found the pyramid useful as a descriptive tool to explain where regulation is successful at accomplishing compliance, and as a normative theory for how compliance could be improved: for example Rees (1988, 1994) on occupational health and safety regulation and nuclear power industry self-regulation, Gunningham (1994) on environmental regulation, Parker (1997, 1999a, 1999b) on regulation of the legal profession, competition and consumer protection law, and anti-discrimination law, Hopkins (1995; see generally 1994, p. 432) on occupational health and safety, and Haines (1997) on safety in the construction industry.

Other researchers have discovered complementary explanations of the interdependence of co-operative and punitive regulation in accomplishing compliance. Burby and Paterson (1993); see also Honneland (1998), for example, compare co-operative enforcement with sanction-oriented enforcement for improving compliance with North Carolina state environmental regulation. In their study compliance-oriented regulatory design in the form of performance standards were more effectively enforced by co-operative strategies that were in turn backed up by potential application of deterrent sanctions than by the application of deterrent sanctions alone.

### 3.3. *Regulatory instrument mixes*

Gunningham and Grabosky (1998); see also Sinclair (1997) have further developed Braithwaite's pyramid of regulatory strategies and explicitly addressed which regulatory policy instruments can be used together most successfully. They suggest the following regulatory design principles:

- Prefer policy mixes incorporating a broader range of instruments and institutions.
- Prefer less interventionist measures.
- Ascend a dynamic instrument pyramid to the extent necessary to achieve policy goals.
- Empower participants which re in the best position to act as surrogate regulators.
- Maximise opportunities for win-win outcomes.

One of their main contributions to the understanding of how mixes of regulatory strategies can be most effective at accomplishing compliance is in suggesting that the pyramid should not consist solely of government regulation but that regulation by second parties (*i.e.* regulated enterprises themselves) and third parties (commercial and non-commercial including civil society) should be utilised. Regulation from these different sources can together make up a pyramid of escalating strategies and sanctions without government having to do everything. (See discussion of regulatory pluralism below.)

The second main contribution Gunningham and Grabosky make is to set out principles for how different regulatory policy instruments can most effectively be used together to support each other's strengths and weaknesses, and avoid conflicts. They propose the following categories of instrument mixes:

#### *Inherently complementary combinations:*

- Information and all other instruments.
- Voluntarism and command and control regulation.
- Command and control regulation and supply side incentives.
- Command and control and broad-based economic incentives.
- Liability rules and command and control.

- Broad-based economic instruments and compulsory reporting and monitoring provisions.

*Inherently counter-productive combinations:*

- Command and control regulation and broad-based economic instruments (which target the same aspects of a common problem).
- Self-regulation and broad-based economic incentives.
- Technology based standards and performance-based standards.
- Incentive based instruments and liability rules.

*Instrument combinations that should chronologically follow one another:*

- Self-regulation and sequential command and control.
- Self-regulation and sequential broad-based economic incentives.

## **4. CURRENT AND EMERGING THEMES**

### **4.1. Introduction**

A central theme of much of the current research on regulation is the idea that in order to understand compliance, we must understand how government regulation interacts with other forms of “regulation” such as self-regulation, internal corporate management and with the actions of other parties such as professional groups (*e.g.* auditors, lawyers, safety professionals), standards-setting organisations, contractors and industry associations. In particular, scholars are using the concept of “regulatory pluralism” to draw attention to the fact that the state is not the only source of “regulation”. This interest in looking at the different forms of “regulation” that may affect potential targets of government regulation has lead researchers to look at a number of new areas including the role of internal corporate compliance systems and self-regulation, the role of standards in affecting business conduct, the role of third parties as “enforcers” of policy objectives and the possibility of using incentives for compliance leadership.

### **4.2. Regulatory pluralism and regulatory space**

Regulatory pluralism is a perspective that sees:

*The forms and courses of [regulatory] ordering... not as unitary and state-centred, but as diverse and multi-centred. Just as health care is not found primarily in hospitals or teaching in schools, the locus of society’s regulatory activity is not to be found primarily in governmental agencies; rather, it is to be found in the normative systems indigenous to a variety of institutional settings ... - universities, unions, factories, hospitals, business corporations, and many other corporate groups. Like the state, these indigenous regulatory systems also have the capacity to make rules and induce compliance among group members. (Rees 1988:7)*

This means that the outcome of government regulation is likely to be affected by the way that government regulation interacts with pre-existing “indigenous” normative orderings in the target population including management systems and cultures within organisations, self-regulatory capacities of industry associations, standards developed by standards organisations, interest and pressure shown by the public and civil society, and gatekeeper roles played by third parties including professionals, insurance companies, and rating agencies. A proper understanding of compliance and regulation therefore involves not just an understanding of regulators’ strategy, but of the “regulatory space” in which government regulation operates (see Scott, 1998; Shearing, 1993; Hancher & Moran, 1989). As Shearing explains:

*One way of thinking about this is to imagine regulation as taking place in a space in which different regulatory schemes operate simultaneously. The occupants of this space may change but it is never empty. If one set of regulatory influences diminishes this simply changes the relationship between occupants of this space... regulatory space is a terrain in which the state must compete for control of regulation with other regulatory entities. (Shearing, 1993, pp. 72-73)*

This perspective fits in with a broader concern in political theory and policy studies with the role of the contemporary state *vis à vis* the market and civil society. Thus a number of scholars have recognised that a unique concern of the contemporary state is to govern by “the devising of forms of regulation which permit and facilitate natural regulation” (Gordon, 1991; p. 19; see also Garland, 1997). The popular US book, *Reinventing Government* (Osborne & Gaebler, 1992) picked up this theme in the metaphor that the role of government should be to “steer” not “row”. Government should leverage its resources by facilitating spontaneously occurring activity in markets and civil society to help accomplish public policy objectives. This approach to governance has had a direct impact on regulatory practice and theorising. In the US, for example, the “re-inventing regulation” programme (Geltman & Skroback, 1998; Nesterczuk, 1996) aims to control regulatory inflation and ensure that the design of regulation and regulatory enforcement strategy meets its goals in an effective and efficient way that maximises voluntary or natural compliance with policy objectives from the beginning.

A number of scholars predict that the “new” regulatory state (see Parker) will turn from being predominantly concerned with compliance with technical rules to a concern with accomplishing substantive compliance with regulatory goals by whatever means is appropriate and feasible including enforced self-regulation, incentive-based regimes, harnessing markets, conferring private rights and liabilities, relying on third party accreditation to standards and insurance-based schemes (Baldwin, 1997; Grabosky, 1995; Manning, 1987; Sparrow, 1994). The objective is to steer corporate conduct towards public policy objective in the most effective and efficient way, without interfering too greatly with corporate autonomy and profit, rather than fruitless expenditure of government and business resources on traditional styles of regulation that ignore the effects of indigenous regulatory orderings.

#### 4.3. *Internal corporate compliance systems*

An emerging area of interest for both compliance researchers and policy makers is the growth in implementation of formal regulatory compliance systems by organisations (*e.g.* McCaffrey, & Hart, 1998; Parker, 1999*a*, 1999*b*; Reichman, 1992). Table 1 summarises the quantitative evidence available on the implementation of corporate compliance programmes. In the US, a 1996 Price Waterhouse survey of corporate compliance practices in 262 large companies found that 86% had a formal compliance policy, 9% were developing a policy and only 5% had no policy (Ward, 1997). In Canada, a 1998 KPMG survey of corporate compliance practices found that 65% of Canada's largest companies had explicit compliance standards and procedures in place. Sixty-three percent had produced publications that communicated these standards and procedures to staff and management, and 58% had assigned responsibility to high level personnel to oversee compliance (Schwartz 1998). The evidence summarised in Table 1 and other studies suggest that compliance management programmes are strongest in the areas of environmental, occupational health and safety, and financial services regulation (see *e.g.* Aalders & Wilthagen, 1997, p. 421; Andersen, 1996; Genn, 1993). Equal employment opportunity and affirmative action compliance policies are also widely implemented, but to a lesser extent.

The evidence also shows that the US is an influential centre for the proliferation of compliance programmes. Schwartz's (1998) survey of Canadian companies found that companies with a US parent were much more likely to have a larger number of elements of a compliance programmes in place (US owned companies averaged 6.6 out of 9 elements of a compliance programme while Canadian owned companies averaged only 3.5 out of 9; See Table 1). The evidence also shows that corporate compliance systems are much more likely to be implemented by large enterprises than small and medium sized enterprises (SMEs).

Table 1. Summary of studies on extent of implementation of corporate compliance programmes

Author & Year	USSC (Ethics Resource Centre) 1996	Ward 1997	Still 1997	Schwartz 1998	Weinberger 1990	V.Braithwaite 1993	Andersen 1996	USSC (Laufer) 1996
Country	US	US	Australia	Canada	US	Australia	Norway	US
Sample	Surveyed 4 035 business employees. 53% response rate.	5 000 companies. 262 useable responses.	Top 75 financial institutions reporting to Affirmative Action Agency.	Not stated.	Surveyed 27 Missouri based top 1 000 companies. 74% response.	Reports of all companies reporting to Affirmative Action Agency.	Surveyed 100 top corporate managers.	212 small businesses with between 50 and 500 employees.
Findings	33% reported their company had some sort of ethics office in their company to whom they could report violations or seek advice.	86% had a formal compliance policy. 9% were developing a policy. 5% had no policy. <i>The top eight areas covered by compliance programmes were:</i> Ethics, conflicts of interest & gifts (86%). Employment/labour law (75%). Antitrust, trade regulation & procurement (68%). Environmental, health and safety (65%). Lobbying, government relations and political contributions (60%). Securities law (55%). Intellectual property (52%). International business practices (46%).	87% management actively promote workplace free of sexual harassment. 81% formal procedures in place to deal with complaints of sexual harassment.	65% had explicit compliance standards and procedures in place. 63% had produced publications that communicated the standards and procedures to staff and management. 58% had assigned responsibility to high level personnel to oversee compliance. 54% periodically reviewed or audited compliance programme. 47% monitored systems to detect misconduct. 44% used training programmes to communicate standards and procedures to staff. 41% had mechanisms to enforce compliance procedures. 38% had systems for employees to report misconduct.	70% had implemented formal compliance policy re insider trading.	86% issued affirmative action policy to all staff. 70% set objectives for affirmative action progress for year ending 1990.	31% strongly engaged in environmental, health & safety (EHS) work. 37% medium to strongly engaged in EHS work. 32% not interested in implementing EHS actions. 29% companies with sales up to 10 mill NOK had no knowledge of requirement for EHS system. 6% companies with sales over 100 mill NOK had no knowledge of requirement.	75% had standards of conduct (written or unwritten) overseen by high level personnel. 71% think their compliance programmes are effective. Nearly 50% had a designated compliance person who is a high-level employee who report directly to the owner, CEO or president. 33% each consider compliance in performance appraisals and in promotion decisions.

The implementation of corporate compliance programmes does not of itself necessarily represent an increase in compliance or in optimal regulatory outcomes. Indeed, it is possible that corporate compliance systems are an expensive response to unnecessarily complex laws. Indeed one of the emerging themes of the research is the extent to which competitiveness and innovation is compatible with regulatory compliance. For example Porter and van der Linde (1995) have suggested that environmental regulation can be good for competitiveness if it stimulates companies to innovate. A number of studies, particularly in the environmental area, have produced evidence that the implementation of innovative regulatory management systems in large businesses can produce outcomes that are good for the environment and good for business and competitiveness (e.g. McInerney & White, 1995; Porter & van der Linde, 1995; Schmidheiny, 1992 but cf Beder, 1997, p. 130).

On the whole the compliance system is an opportunity for business to take responsibility itself in its own ways for the objectives of regulation rather than being weighed down by more and more rules. A competitive compliance programme should therefore be aimed at compliance via the substantive achievement of regulatory objectives such as a more healthy environment, a safer workplace, well-informed investors/consumers. In theory if there is a flexible regulatory regime that sets outcomes rather than rules, then the compliance programme can fit better into the company's normal operating procedures, training programmes and business goals and will be correspondingly more cost-efficient and competitive. Indeed a strategic compliance system geared towards a flexible, outcome-oriented regulatory regime ought to be able to produce competitiveness-producing innovations (see Boyd, 1998; Schmitt, 1994). However the approach of most regulators and also of most businesses towards compliance issues have not yet attained the ideal conditions posited by theory.

#### **4.4. *Incentives for compliance systems and compliance leadership***

Corporate compliance systems are also being seen as a solution to the problem long identified by critical corporate law scholars of how to ensure that legal sanctions permeate the internal workings of the corporation, ensure that the right person or persons are held responsible for wrongdoing and change corporate cultures and systems to avoid repetition. A number of scholars have suggested that the best solution is to require large institutions to regulate themselves (*i.e.* to implement internal outcome-oriented compliance systems) in a way that is responsive to social and community concerns (Bardach & Kagan, 1982; Chayes, 1960; Selznick, 1992, pp. 336ff; Sigler & Murphy, 1988; Stone, 1975). For example, Selznick argues that responsible institutions like responsible individuals must have “an *inner* commitment to moral restraint and aspiration” (Selznick, 1992, p. 345, emphasis in original):

*Fairness in industrial discipline; affirmative action to overcome discrimination and its effects; environmental protection; quality control; occupational safety: these and other aspirations cannot be achieved through rhetoric or through grudging conformity to external rules. They usually require specialized units [within the organisation] capable of determining policy, monitoring practices, and establishing appropriate procedures... These parts are, in effect, internal interest groups. As sources of energy and centers of competence they may either subvert the enterprise or lend it life and strength.* (Selznick, 1992, p. 352).

This approach is also thought to be more effective for governments in achieving their policy objectives, than the traditional enforcement of rules approach:

*...legalistic enforcement cannot encompass in formal, enforceable rules the sheer diversity of the causes of harm that arise in a large, technologically dynamic economy. The inspector who walks through a factory and faithfully enforces each regulation may not detect or do anything about more serious sources of risk that happen to lie outside the rulebook; at the same time, he alienates the regulated enterprise and encourages non-co-operative attitudes. In light of these developments, one might expect regulatory agencies to evolve enforcement strategies designed to persuade the regulated enterprise to do more than is strictly required by law. An agency's goal would not be merely to secure compliance with rules per se, but to mobilize available resources to solve particular social problems in the most efficient and least disruptive way. Its mission would be to affect the consciousness, organization or culture of the regulated enterprise in order to make it sensitive to serious sources of harm. (Bardach & Kagan, 1982, p. 123)*

A number of scholars are now evaluating the possibilities for regulators to provide incentives for enterprise's own compliance systems to use internal disciplinary systems to identify those who are responsible for non-compliance, and to mobilise those who can change corporate cultures to do so. The objective here is to focus regulatory effort on those most able to prevent repetition and therefore increase the efficiency of corporate regulation for both government and business (leading accounts are Coffee, 1981; Fisse & Braithwaite, 1993; Sigler and Murphy, 1988; see also for example Arlen & Kraakman, 1997; Calkins, 1999; DeMott, 1997).

Researchers are also evaluating a number of policy options that would provide incentives or recognition for enterprises who developed excellent compliance systems including a reduced burden of routine inspections, penalty discounts for minor incidents of non-compliance that do occur, simplified licences and permits, permission to use a label or mark certifying a high level of compliance, and indemnities for voluntary disclosure and correction of non-fraudulent non-compliance. (See main paper on *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance*, Section 2.1).

One important issue that will prompt further research is the possibility of offering distinct but standardised regulatory paths to enterprises with different credentials, characteristics and histories of compliance (Gunningham & Grabosky, 1998, p. 402). The track offered to "leaders" would be more flexible and attractive than that offered to the average enterprise, while another track with greater monitoring and reprint requirements might be required for "laggards" or those "on probation" after a serious non-compliance episode.

#### **4.5. *The role of third parties, civil society and markets in regulation***

Research interest in internal corporate compliance systems focuses on the possibilities for enterprise self-regulation to improve compliance with government policy objectives in a way that satisfies both business and communities. Another emerging theme in regulatory scholarship is the role of third parties and civil society in regulation and compliance. Third parties may either (i) be co-opted into the formal regulatory system via government regulation, or (ii) be responsible for regulatory orderings distinct from or subordinate to government regulation.

Gilboy (1998) has recently published a very comprehensive review of the co-option of third parties into regulation in the US. She defines third party liability systems as those that have the following three features: “(i) private entities are compelled to help deter misconduct; (ii) civil and criminal sanctions exist for failure to perform duties; and (iii) little or no compensation is provided to cover the costs of performing duties” (Gilboy, 1998, p. 140).

Gilboy’s review of the research points to the significance of pre-existing social norms in civil society in determining whether third parties are likely to assist or resist compliance with government regulation. She argues that in order to understand non-compliance it is important to know whether non-compliant individuals “are deviating from the dominant culture or conforming to some subculture that contradicts the dominant culture” (Gilboy, 1998, p. 149). Stronger regulatory enforcement strategies will often be ineffective at improving compliance with the law if people see their non-compliant conduct as culturally approved. For example, it has been found that child psychiatrists may not report suspected child abuse to the government because they believe that in most situations it is better for the child and offender to be psychiatrically treated than to be dealt with by the protective services department, a view shared by their professional community (see Gilboy, 1998, p. 148). On the other hand, when non-smoking laws were enacted in certain US states, these reinforced existing social norms so that private enterprises (restaurants, hotels, workplaces etc.) were happy to enforce smoking restrictions as required by law, and patrons and workers often help enforce the law too (by requesting smokers to stop) even though they have no legal necessity to do so (see Gilboy, 1998, p. 150).

A central question in research on the role of third parties in regulation is whether governments can work in partnership with third parties to improve compliance with substantive policy outcomes, and if so, how to do that. This is a huge question for research since a comprehensive answer requires a comprehensive understanding of how markets and societies work. Grabosky (1995); see also Grabosky (1994) has made one useful attempt to comprehensively categorise the ways in which pre-existing non-governmental institutions and resources (including both civil society and markets) can be involved in supporting regulatory compliance with policy objectives. His analysis includes both third parties enlisted by government to support compliance, and non-government regulatory orderings that may be spontaneous in origin and independent in operation (Grabosky, 1995, p. 529). He proposes the following categories, arranged in descending order of degree of state coerciveness:

- *Conscription*: Governments command third parties to assist with processes of compliance (see Gilboy, 1998) *e.g.* cash transaction reporting requirements.
- *Required private interface*: Governments require that targets of regulation use specified machinery of private institutions *e.g.* requiring independent certification of an environmental management system to ISO 14000 or some other standard.
- *Required record-keeping and disclosure*: Governments require disclosure of certain aspects of regulatees’ activities *e.g.*, greenhouse gas emissions.
- *Co-optation of organised interests*: The representation of interests in tripartite or corporatist policy processes in order to gain further information and build support for policy outcomes.

- *Conferring entitlements*: Government creates certain specified right, confers them upon private parties and leaves it to those parties to enforce, *e.g.* patent, trademark and copyright laws, or government empowers third parties to undertake enforcement actions on behalf of the state. This category might also include the creation of trading regimes for rights to certain amounts of emissions.
- *Incentives*: Governments offer incentives to regulatees to induce compliance or to third parties for production of regulatory services *e.g.* relaxing regulatory requirements for companies with exemplary compliance records, and rewards/bounties for surveillance activity.
- *Contracting out*: Governments may contract out information or one or more regulatory functions *e.g.* contracting out of motor vehicles emissions testing on a user pays basis.
- *Delegation or deference to private parties*: Government relies upon activity being carried out in private sector rather than duplicating it *e.g.* standards developed by private standards setting organisations are adopted by government regulatory agencies, the US Securities and Exchange Commission delegates rule-making to self-regulatory organisation such as Stock Exchanges.
- *Abdication*: Government abdicates its regulatory role and leaves allocative and ordering decisions to the market.

Some of the issues in this area that are attracting the greatest research and policy interest are:

- Whether standards developed by national and international standardisation organisations can be adequate alternatives to regulatory requirements in some situations, and the extent to which markets will spontaneously make compliance with these standards widespread (*e.g.* Cheit, 1990). The ISO 14000 series on environmental management systems has attracted particular interest (*e.g.* Gunningham & Sinclair, 1999; Krut & Gleckman, 1998).
- The role of “compliance professionals” employed by organisations in improving their compliance with the law including specialist safety, anti-discrimination and legal professionals (*e.g.* Parker 1999b; Sigler & Murphy, 1988; Weait, 1994).
- The effectiveness of regimes that attempt to coopt market mechanisms to regulatory purposes in improving overall regulatory policy outcomes such as the creation of trading regimes to control total allowable emissions of sulphur dioxide or greenhouse gases, and of tax incentives (*e.g.* Tietenberg, 1985).
- The role of the government when it works in partnership with markets and civil society. As Grabosky (1995, p. 537 ff) points out, when governments use leverage to achieve regulatory compliance rather than using direct command and control techniques it can raise potential problems of accountability, market failure, gatekeeper failure, undue influence on government policy, conflicts of interest and lack of policy coherence. This means that governments will have to develop greater capacities for strategic intelligence, oversight and co-ordination.



## BIBLIOGRAPHY

- Aalders, M. & Wilthagen, T. (1997), "Moving beyond command-and-control: Reflexivity in the regulation of occupational health and safety and the environment" 19 *Law & Policy*, pp. 415-443.
- Andersen, O. (1996), "The Norwegian internal control system: A tool in corporate environmental management?" 3 *Eco-Management and Auditing*, pp. 26-29.
- Arlen, J. & Kraakman, R. (1997), "Controlling corporate misconduct: An analysis of corporate liability regimes" 72(4) *New York University Law Review*, pp. 687-779.
- Ashby, S. & Diacon, S. (1996), "Motives for occupational risk management in large UK companies" 22 *Safety Science*, pp. 229-243.
- Ayres, I. & Braithwaite, J. (1992), *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York.
- Baldwin, R. (1997), "Regulation after 'command and control'" in Hawkins, K. (ed) *Human Face of Law*, Clarendon Press, Oxford, pp. 65-84.
- Bardach, E. & Kagan, R. (1982), *Going by the Book: The Problem of Regulatory Unreasonableness*, Temple University Press, Philadelphia.
- Becker, G. (1968), "Crime and punishment: An economic approach", 76 *Journal of Political Economy*, p. 169.
- Beder, S. (1997), *Global Spin: The Corporate Assault on Environmentalism*, Scribe Books, Melbourne.
- Boggiano, A., Barrett, M., Weiher, A., McLelland, G. & Lusk, C., "Use of the maximal-operant principle to motivate children's intrinsic interest" 53 *Journal of Personality and Social Psychology*, pp. 866-879.
- Boyd, J. (1998), *Searching for the Profit in Pollution Prevention: Case Studies in the Corporate Evaluation of Environmental Opportunities*, Discussion Paper 98-30, Resources for the Future, Washington DC.
- Braithwaite, J. (1984), *Corporate Crime in the Pharmaceutical Industry*, Routledge & Kegan Paul.
- Braithwaite, J. (1985), *To Punish or Persuade: Enforcement of Coal Mine Safety*, State University of New York Press, Albany.
- Braithwaite, J. (1989), *Crime, Shame and Reintegration*, Cambridge University Press, Cambridge.
- Braithwaite, J. (1999), "Restorative justice: Assessing optimistic and pessimistic accounts" *Crime and Justice: A Review of Research*, Tonry M. (ed), pp. 241-364.
- Braithwaite, J. & Makkai, T. (1991), "Testing an expected utility model of corporate deterrence" 25 *Law & Society Review*, 7-40.
- Braithwaite, J. & Makkai, T. (1994), "Trust and compliance" 4 *Policing & Society*, pp. 1-12.

- Braithwaite, V. (1993), "The Australian government's affirmative action legislation: Achieving social change through human resource management", 15(4) *Law & Policy*, 327-354.
- Braithwaite, V. (1995), "Games of engagement: Postures within the regulatory community", 17(3) *Law & Policy*, pp. 225-255.
- Brehm, S. & Brehm, J. (1981), *Psychological Reactance: A Theory of Freedom and Control*, Academic Press, New York.
- Brown, R. (1994), "Theory and practice of regulatory enforcement: Occupational health and safety regulation in British Columbia", 16 *Law & Policy* 63-91.
- Burby, R. and Paterson, R. (1993), "Improving compliance with state environmental regulations" 12 *Journal of Policy Analysis and Management*, 753-772.
- Calkins, S. (1997), "Corporate compliance and the anti-trust agencies' bi-modal penalties" 60(3) *Law & Contemporary Problems*, pp. 127-167.
- Chayes, A. (1960), "The modern corporation and the rule of law" in Mason, E. (ed) *The Corporation in Modern Society*, Harvard University Press, Cambridge, Massachusetts, pp. 25-45.
- Cheit, Ross (1990), *Setting Safety Standards: Regulation in the Public and Private Sectors*, University of California Press, Berkeley.
- Coffee, J. (1981), "No soul to damn: no body to kick: An unscandalised inquiry into the problem of corporate punishment", 79 *Michigan Law Review*, pp. 386-459.
- Cooter, R. & Ulen, T. (1988), *Law and Economics*, Scott, Foresmen & Coy, Glenview, Illinois.
- Davidson, W., Worrell, D., & Cheng, L. (1995), "Are OSHA penalties effective?", 92 *Business & Society Review*, pp. 25-28.
- DeMott, D. (1997), "Organizational incentives to care about the law" 60(4) *Law & Contemporary Problems*, pp. 39-66.
- Dimaggio, P. & Powell, W. (1991), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields" in Powell, W. & DiMaggio, P. (eds) *The New Institutionalism in Organizational Analysis*, University of Chicago Press, Chicago.
- DiMento, J. (1989), "Can social science explain organizational non-compliance with environmental law?" 45 *Journal of Social Issues*, pp. 109-132.
- Dobbin, F., Edelman, L., Meyer, J. Scott, W. R. & Swidler, A. (1988), "The expansion of due process in organizations" in Zucker, L. (ed) *Institutional Patterns and Organizations: Culture and Environment*, Ballinger Publishing Coy, Cambridge, Massachusetts, pp. 71-98.
- Edelman, L. (1990), "Legal environments and organisational governance: The expansion of due process in the American workplace", 95 *American Journal of Sociology*, pp. 1401-1440.
- Edelman, L., Erlanger, H. & Lande, J. (1993), "Internal dispute resolution: The transformation of civil rights in the workplace" 27(3) *Law & Society Review*, pp. 497-534.
- Ekland-Olson, S., Lieb, J. & Zurcher, L. (1984), "The paradoxical impact of criminal sanctions: Some microstructural findings" 18 *Law & Society Review*, p. 159.

- Fisse, B. & Braithwaite, J. (1983), *The Impact of Publicity on Corporate Offenders*, State University of New York Press, Albany.
- Fisse, B. & Braithwaite, J. (1993), *Corporations, Crime and Accountability*, Cambridge University Press, Cambridge.
- Friedrichs, D. (1996), *Trusted Criminals: White Collar Crime in Contemporary Society*, Wadsworth Publishing, Belmont, California.
- Fukuyama, F. (1995), *Trust: The Social Virtues and the Creation of Prosperity*, Free Press, New York.
- Garland, D. (1997), "'Governmentality' and the problem of crime: Foucault, criminology, sociology" 1 *Theoretical Criminology*, pp. 173-214.
- Geltman, Elizabeth & Skroback, Andrew (1998), "Reinventing the EPA to conform with the new American environmentality" 23 *Columbia Journal of Environmental Law*, pp. 1-56.
- Genn, H. (1993), "Business responses to the regulation of health and safety in England" 15 *Law & Policy*, pp. 219-233.
- Gilboy, J. (1998), "Compelled third-party participation in the regulatory process: Legal duties, culture and noncompliance", 20(2) *Law & Policy*, pp. 135-155.
- Gordon, C. (1991), "Governmental rationality: An introduction" in Burchell, G., Gordon, C. & Miller, P. (eds), *The Foucault Effect: Studies in Governmentality*, University of Chicago Press, Chicago, pp. 1-52.
- Grabosky, P. (1994), "Green markets: Environmental regulation by the private sector" 16 *Law & Policy*, pp. 419-448.
- Grabosky, P. (1995), "Using non-governmental resources to foster regulatory compliance", 8 *Governance: An International Journal of Policy and Administration*, pp. 527-550.
- Grabosky, P. and Braithwaite, J. (1986), *Of Manners Gentle: Enforcement Strategies of Australian Business Regulatory Agencies*, Oxford University Press, Melbourne.
- Gunningham, N. (1994), "Beyond compliance: Management of environmental risk" in Boer, B., Fowler, R. & Gunningham, N. (eds) *Environmental Outlook: Law and Policy*, Federation Press, Sydney, pp. 254-281.
- Gunningham, N. & Grabosky, P. (1998), *Smart Regulation: Designing Environmental Policy*, Clarendon Press, Oxford.
- Gunningham, Neil & Darren Sinclair (1999), "Environment management systems, regulation and the pulp and paper industry: ISO 14001 in practice", 16 *Environmental and Planning Law Journal*, pp. 5-24.
- Haines, F. (1997), *Corporate Regulation: Beyond "Punish or Persuade"*, Clarendon Press, Oxford.
- Hancher, L. & Moran, M. (1989), "Organising regulatory space" in Hancher, L. & Moran, M. (eds) *Capitalism, Culture and Economic Regulation*, Clarendon Press, Oxford, pp. 271-299.
- Hawkins, K. (1984), *Environment and Enforcement: Regulation and the Social Definition of Pollution*, Clarendon Press, Oxford.
- Hawkins, K. (1990), "Compliance strategy, prosecution policy, and Aunt Sally", 30(4) *British Journal of Criminology*, pp. 444-466.

- Heimer, C. (1996), "Explaining variation in the impact of law: Organizations, institutions and professions", 15 *Studies in Law, Politics & Society*, pp. 29-59.
- Hoffman, A. (1997), *From Heresy to Dogma: An Institutional History of Corporate Environmentalism*, The New Lexington Press, San Francisco.
- Honneland, G. (1998), "Compliance in the fishery protection zone around Svalbard", 29 *Ocean Development and International Law*, pp. 339-360.
- Hopkins, A. (1994), "Compliance with what? The fundamental regulatory question", 34 *British Journal of Criminology*, pp. 431-443.
- Hopkins, A. 1995, *Making Safety Work*, Allen & Unwin, St Leonards, NSW.
- Hutter, B. (1997), *Compliance: Regulation and Environment*, Clarendon Press, Oxford.
- Jenkins, A. (1994), "The role of managerial self-efficacy in corporate compliance" 18(1) *Law & Human Behaviour*, pp. 71-88.
- Kagan, R. & Scholz J. (1984), "The 'criminology of the corporation' and regulatory enforcement strategies" in Hawkins, K. & Thomas, J. (eds) *Enforcing Regulation*, Kluwer Nijhoff Publishing, Boston, pp. 67-95.
- Kohn, A. (1993), *Punished by Rewards: The Trouble with Gold Stars, Incentive Plans, A's, Praise and Other Bribes*, Houghton Mifflin Coy, Boston.
- Krut, R. & Gleckman, H. (1998), *ISO 14001: A Missed Opportunity for Global Industrial Development*, Earthscan Publications, London.
- Levi, M. (1988), *Of Rule and Revenue*, University of California Press, Berkeley.
- McCaffrey, D. and Hart, D. (1998), *Wall Street Polices Itself: How Securities Firms Manage the Legal Hazards of Competitive Pressures*, Oxford University Press, New York.
- McCaffrey, D. and Faerman S. (1994), "Shared regulation in the United States securities industry" 26(2) *Administration & Society*, pp. 204-235.
- McInerney, F. & White, S. (1995), *The Total Quality Corporation: How 10 Major Companies Added to Profits and Cleaned up the Environment in the 1990s*, Truman Telley Books/Plume, New York.
- Makkai, T. & Braithwaite, J. (1993), "Praise, pride and corporate compliance", 21 *International Journal of the Sociology of Law*, pp. 73-91.
- Makkai, T. & Braithwaite, J. (1994a), "Reintegrative shaming and regulatory compliance", 32 *Criminology*, pp. 361-385.
- Makkai, T. & Braithwaite, J. (1994b), "The dialectics of corporate deterrence", 31 *Journal of Research in Crime & Delinquency*, pp. 347-373.
- Manning, P. (1987), "Ironies of compliance" in Shearing, C. & Stenning, P. (eds) *Private Policing*, Sage Publications, Newbury Park, California.
- March, J. & Simon, H. (1958), *Organizations*, Wiley, New York.
- Nesterczuk, George (1996), "Reviewing the national performance review", 3 *Regulation*, pp. 31-39.

- Ogus, A. (1994), *Regulation: Legal Form and Economic Theory*, Clarendon Press, Oxford.
- Osborne, D. & Gaebler, T. (1992), *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, Addison-Wesley, Reading, Massachusetts.
- Parker, C. (1997), "Converting the lawyers: The dynamics of competition and accountability reform", 33 *The Australian and New Zealand Journal of Sociology*, pp. 39-55.
- Parker, C. (1999a), "Compliance professionalism and regulatory community: The Australian trade practices regime", 26(2) *Journal of Law & Society*, pp. 215-239.
- Parker, C. (1999b), "How to win hearts and minds: Corporate compliance policies for sexual harassment", 21(1) *Law & Policy*, pp. 21-48.
- Parker, C. (1999), *Just Lawyers: Regulation and Access to Justice*, Oxford Socio-Legal Studies Series, Oxford University Press, Oxford.
- Paternoster, R., Brame, R., Bachman, R. & Sherman, L. (1997), "Do fair procedures matter? The effect of procedural justice on spouse assault" 31 *Law & Society Review*, pp. 163-204.
- Paternoster, R. & Simpson, S. (1996), "Sanction threats and appeals to morality: Testing a rational choice model of corporate crime" 30 *Law & Society Review*, pp. 549-583.
- Pearce, F. & Tombs, S. (1990), "Ideology, hegemony, and empiricism: Compliance theories of regulation", 30 *British Journal of Criminology*, pp. 423-443.
- Pearce, F. & Tombs, S. (1997), "Hazards, law and class: Contextualising the regulation of corporate crime", 6 *Social & Legal Studies*, 79-107.
- Pearce, F. & Tombs, S. (1998), *Toxic Capitalism: Corporate Crime and the Chemical Industry*, Ashgate, Dartmouth, Aldershot, England.
- Porter, M. & van der Linde, C. (1995), "Green and competitive: Ending the stalemate", *Harvard Business Review*, September–October, pp. 120–134.
- Putnam, R. (1993), *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton University Press, Princeton.
- Rees, J. (1988), *Reforming the Workplace: A Study of Self-Regulation in Occupational Safety*, University of Pennsylvania Press, Philadelphia.
- Rees, J. (1994), *Hostages of Each Other: The Transformation of Nuclear Safety Since Three Mile Island*, University of Chicago Press, Chicago and London.
- Rees, J. (1997), "Development of communitarian regulation in the chemical industry", 19(4) *Law & Policy*, pp. 477-528.
- Reichman, N. (1992), "Moving backstage: Uncovering the role of compliance practices in shaping regulatory policy" in Schlegel, K. & Weisburd, C. (eds) *White Collar Crime Reconsidered*, Northeastern University Press, Boston, pp. 245-267.
- Schmidheiny, S. (1992), *Changing Course: A Global Business Perspective on Development and the Environment*, MIT Press, Cambridge, Massachusetts.

- Schmitt, R. (1994), "The Amoco/EPA Yorktown Experience and Regulating the Right Thing", 9(1) *Natural Resources and Environment*, pp. 11-13, 51.
- Scholz, J. (1997), "Enforcement policy and corporate misconduct: The changing perspective of deterrence theory", 60(3) *Law & Contemporary Problems*, pp. 253-268.
- Scholz, J. & Gray, W. (1990), "OSHA enforcement and workplace injuries: A behavioural approach to risk assessment", 3 *Journal of Risk and Uncertainty*, p. 283.
- Scholz, J. & Lubell, M. (1998), "Trust and taxpaying: Testing the heuristic approach to collective action", 42 *American Journal of Political Science*, p. 398.
- Scholz, J. & Lubell, M. (1999), "Adaptive political attitudes: Duty, trust and fear as monitors of tax policy", 42 *American Journal of Political Science*.
- Schwartz, M. (1998), "Compliance and business ethics are coming of age in Canada", 12(1) *Ethikos & Corporate Conduct Quarterly*, pp. 7-9, 12.
- Schwartz, R. & Orleans, S. (1967), "On legal sanctions" 34 *University of Chicago Law Review*, 274-300.
- Scott, C. (1998), "Analysing regulatory space: Implications for institutional design and reform", Law & Society Association Annual Conference, Aspen, Colorado, June.
- Scott, W. R. (1995), *Institutions and Organizations*, Sage Publications, Thousand Oaks, California.
- Selznick, P. (1992), *The Moral Commonwealth*, University of California Press, Berkeley.
- Shearing, C. (1993), "A constitutive conception of regulation" in Grabosky, P. & Braithwaite, J. (eds) *Business Regulation and Australia's Future*, Australian Institute of Criminology, Canberra, pp. 67-79.
- Sherman, L. (1993), "Defiance, deterrence, and irrelevance: A theory of the criminal sanction", 30(4) *Journal of Research in Crime & Delinquency*, pp. 445-473.
- Sigler, J. & Murphy, J. (1988), *Interactive Corporate Compliance: An Alternative to Regulatory Compulsion*, Quorum Books, New York.
- Sinclair, D. (1997), "Self-regulation versus command and control? Beyond false dichotomies", 19(4) *Law & Policy*, pp. 529-559.
- Sparrow, M. (1994), *Imposing Duties: Government's Changing Approach to Compliance*, Praeger Publishers, Westport, Connecticut.
- Stigler, G. (1970), "The optimum enforcement of laws", 78 *Journal of Political Economy*, p. 526.
- Still, L. (1997), *Glass Floors and Sticky Ceilings: Barriers to the Careers of Women in the Australian Finance Industry*, Human Rights and Equal Opportunity Commission, Sydney.
- Stone, C. (1975), *Where the Law Ends: The Social Control of Corporate Behaviour*, Harper & Row, New York.
- Suchman, M. & Edelman, L. (1997), "Legal rational myths: The new institutionalism and the law and society tradition", 21 *Law & Social Inquiry*, pp. 903-941.
- Tietenberg, T. (1985), *Emissions Trading: An Exercise in Reforming Pollution Policy*, Resources for the Future Inc, Washington DC.

Tittle, C. (1980), *Sanctions and Social Deviance*, Praeger, New York.

Vaughan, D. (1996), *The Challenger Launch Decision: Risky Technology, Culture and Deviance at NASA*, The University of Chicago Press, Chicago.

Ward, A. (1997), "Compliance surveys: Companies say better safe than sorry" 62(7) *Corporate Legal Times*, pp. 1-3.

Weait, M. (1994), "The role of the compliance officer in firms carrying on investment business" September *Butterworths Journal of International Banking and Financial Law*, pp. 381-384.

Weil, D. (1996), "If OSHA is so bad, why is compliance so good?", 27 *RAND Journal of Economics*, pp. 618-640.

Weinberger, A. (1990), "Preventing insider trading violations: A survey of corporate compliance programs", 18 *Securities Law Regulation Journal*, 180-193.