Occasional paper no. 13

Improving Public Value in Regulatory Enforcement: Credible Signalling in Regulatory Relationships

Hanzo van Beusekom

stateservicesauthority

the Australia and New Zealand School of Government

Victoria
The Place To Be

The Australia and New Zealand School of Government and the State Services Authority of Victoria are collaborating on a partnership to build connections between new thinking, practice and implementation in public administration. The Occasional Paper series is part of the partnership program.

About the Australia and New Zealand School of Government

ANZSOG is a consortium of governments, universities and business schools from Australia and New Zealand. It represents a bold commitment on behalf of member governments to strengthen the management and policy capacity of their respective public sectors.

ANZSOG is a world-class centre that provides tailored learning opportunities for future leaders of the public sector. ANZSOG's purpose is to encourage improved public sector decision making, leadership and policy outcomes for the benefit of the whole society. In doing so, the School also plays a key role in promoting public service as a profession of great social value.

ANZSOG has three core activities:

- executive education courses including an Executive Master of Public Administration degree;
- a case study program; and
- a research program

These programs aim to deepen knowledge and understanding of government and to disseminate that understanding to the wider community – for the benefit of the whole society.

Contact us at:
ANZSOG
email: anzsog@anzsog.edu.au
phone**:** +61 3 8344 1990
fax: +61 3 9349 5849

Postal Address:
PO Box 230
Carlton South
Victoria 3052
Australia

Web address:
www.anzsog.edu.au

About the State Services Authority

The State Government of Victoria has vested the State Services Authority with functions designed to foster the development of an efficient, integrated and responsive public sector which is highly ethical, accountable and professional in the ways it delivers services to the Victorian community.

The key functions of the Authority are to:

- identify opportunities to improve the delivery and integration of government services and report on service delivery outcomes and standards;
- promote high standards of integrity and conduct in the public sector;
- strengthen the professionalism and adaptability of the public sector; and
- promote high standards of governance, accountability and performance for public entities.

The Authority seeks to achieve its charter by working closely and collaboratively with Victorian public sector departments and agencies.

Contact us at:
State Services Authority
Email: info@ssa.vic.gov.au
Phone: +61 3 9651 1321
Fax: +61 3 9651 0747

Postal Address:
3 Treasury Place
Melbourne
Victoria 3002
Australia

Web address:
www.ssa.vic.gov.au

Published: September 2011

Series foreword

The Australia and New Zealand School of Government and the State Services Authority are collaborating on a partnership that draws together a broad network of policy-makers, practitioners and leading academics.

The partnership is designed to build connections between new thinking, research and practice in public policy and public administration.

The Occasional Papers explore the challenges and opportunities in public administration. They showcase new ideas and offer new insights into issues facing the public sector.

Written by either academics or public servants, the papers bring together the academy with public policy practitioners.

We trust that you find the Occasional Papers stimulating and thought provoking. All papers in the series are published on the ANZSOG and SSA websites.

Professor Allan Fels AO
Dean
Australia and New Zealand School of Government

Bruce C Hartnett
Chair
State Services Authority

About the author

Hanzo van Beusekom studied Economics at the University of Amsterdam and holds a cum laude MBA degree from INSEAD, France. Hanzo started his career at The Boston Consulting Group (BCG), a strategic management consultancy. In July 2006 Hanzo became Head of the Financial Enterprises Division at the AFM. Hanzo teaches on the practical aspects of supervision at the Free University of Amsterdam. In the past few years he has been guest lecturer at the Said Business School at Oxford University and the John. F. Kennedy School at Harvard. As of October 2010 he has been appointed a research fellow at the Australia and New Zealand School of Government (ANZSOG).

Improving Public Value in Regulatory Enforcement: Credible Signalling in Regulatory Relationships

Hanzo van Beusekom, partner, Clear Conduct and research fellow at ANZSOG[1]

Karina Raaijmakers, manager, Netherlands Authority for the Financial Markets (AFM)

Introduction

The regulator/regulatee relationship is strongly influenced by information asymmetries. Regulators need to estimate the quality of regulated firms based on limited information in order to target their investigations at the firms with the lowest compliance. To avoid the costs of an investigation and possible corrective actions, regulated firms try to signal to the regulator that they are of high quality and do not need to be investigated.

This paper argues that for a signal to be credible it needs to be relevant, verifiable, costly and extra costly for low quality firms (able to discriminate). The first three conditions do not enable a regulator to distinguish high from low quality firms, as a low compliance firm is just as able as a high compliance firm to create and send these signals. Only the inclusion of the fourth condition, being discriminatory, enables the regulator to correctly target low quality firms.

1. Information asymmetry

Regulators all around the world have a tough job to do. Whether they are regulating the financial market, environmental hazards, food safety or any other area, they all face the same challenge: to maximise public value while being as parsimonious as possible with both resources and authority (Moore 1995). The standard approach to this challenge is to introduce risk based regulation, which involves directing regulatory resources to the areas with the highest risks and spending relatively few resources on low risk areas, thereby maximizing return on investment.

This approach raises an important question: how is the regulator to identify the highest risk?

In most regulatory areas the number of subjects is too large for a detailed assessment of everyone's compliance and risk level. Regulators can make a rough estimate of these levels by using a range of relevant instruments, but it is often simply too costly in time or money to perform a thorough analysis of every regulated entity. This leads to a classic example of information asymmetry: the regulator knows less about the level of compliance than the regulatees.

Signalling theory is useful for describing behavior when two parties (individuals or organisations) have access to different information. One party, the sender, must choose whether and how to communicate (or signal) that information, and the other party, the receiver, must choose how to interpret the signal. In particular, signalling is a useful way for one party to communicate its underlying quality to other parties (Connelly et al 2011). Signalling theory has been applied to a wide array of research areas, for example strategic management – e.g. how CEOs signal the unobservable quality of their firms to potential investors (Zhang & Wiersema 2009), entrepreneurship – e.g. the signalling value of board characteristics (Certo 2003), and human resource management/recruitment (Suazo et al 2009), but surprisingly, it has never been applied to the regulatory context.

In this context, firms with a high level of compliance are interested in communicating their compliance level to the regulator. Firms with a low level of compliance will try to reduce the probability of discovery by also giving the regulator the impression of having a high compliance level. As a result of this dynamic, all firms will try to signal that they have a high compliance level. Due to the information asymmetry we have described, it is difficult for the regulator to see which firms truly have a high level of

[1] The authors can be reached at hanzo@clearconduct.nl and at karina.raaijmakers@afm.nl

compliance. Consequently, the regulator might misdirect its resources, leading to unnecessary costs for the 'good' firms that are investigated and to reduced public value when 'bad' firms are not investigated.

2. Regulators and firms with high compliance levels could benefit from credible signalling

A regulatory investigation of a firm can lead to substantial costs even when a firm has a high level of compliance (time spent on preparation, documents, meetings, replying to regulatory findings, legal costs etc). Management in 'good' firms still worry that the regulator might find minor infringements despite the average high quality of compliance. Even if they are less severe than infringements at comparable firms, the investigation may lead to some form of enforcement, with possible reputational damage.

The enforcement of minor infringements is also inefficient from a regulatory perspective: regulatory resources could instead have been deployed towards more severe compliance issues at firms with lower compliance levels. This alternative use of resources would have created a higher level of public value. Credible signalling may increase the probability that scarce regulatory resources are deployed on the most severe compliance issues, consequently benefiting both 'good' firms and regulators.

Firms with low compliance levels would of course lose from more credible signalling. They would bear the brunt of increased scrutiny by regulators, and could no longer hide by pretending to be a compliant firm. In summary, better signalling leads to a higher probability that each stakeholder gets what they deserve at a minimal cost.

Given the consequences at stake it is not surprising that all regulated firms send signals to their regulator. The important question is how regulators can distinguish between credible signals and mere noise. We will look at this question first from a theoretical point of view and will then discuss several examples of signalling dynamics.

3. What makes compliance signals credible?

Based on the signalling literature and our regulatory experience, this paper investigates four different conditions that may give credibility to a signal sent by a regulate to a regulator. The conditions are: relevance, verifiability, costliness and discriminating power.

The first condition is that a signal needs to have sufficient relevance to the object under investigation, in this case the level of compliance. This may sound blindingly obvious but in practice many signals violate this very simple first condition. For example, financial firms often signal to regulators that a specific product or practice has not led to a significant number of complaints from financial consumers and is therefore of good quality.[2] However, there can be many reasons why consumers are not complaining about a poor financial product or practice (lack of knowledge, shame in being deceived, and so on). Signals like: 'we have a new energetic compliance director', 'look at our new Corporate Social Responsibility program' or 'we sponsor academic research' are ubiquitous but of even lower information content. If, on the other hand, a financial firm were to inform the regulator that all sales by advisers are checked by an independent quality team with a clear mandate and incentives to enforce the 'customer comes first' rule, this would probably be seen as a relevant signal.

Secondly, the signal needs to be verifiable in order to be credible. If the CEO states: 'we have an independent quality team with a clear mandate and the right incentives (but you may never speak to them)', this would certainly reduce the credibility of the signal. The possibility of finding out with one or two phone calls whether the CEO is telling the truth increases its credibility. However, if verification is extremely costly this reduces the power of the signal.

[2] We often use examples from financial firm because we have firsthand experience with this type of regulation. We are confident that the underlying dynamics we describe is applicable to a wide range of regulatory fields.

The third condition is that signals need to be costly in order to be credible (e.g. Bird & Smith 2005). Firms might signal the fact that the compliance division has a large budget ('despite the tough economic times'), or that taking a non-compliant product off the market has led to large costs or profits foregone. 'Talk is cheap' and 'put your money where your mouth is' are expressions to convey the same message: a signal needs to be costly in order to be credible. But is there always a positive relationship between costliness and credibility?

Fourthly, a signal is more credible if it has discriminating power, meaning that it is more costly to a non-compliant firm than a compliant one. In order to maintain their effectiveness, the costs of signals must be structured in such a way that dishonest signals do not pay (Connelly et al 2011). To take a labour market example, employers often seek recruits with the ability to learn. The problem is that all candidates claim to be good learners, and only the candidates themselves know firsthand to what extent (i.e. there is knowledge asymmetry). Formal education can be a credible signal here because it has discriminating power. Formal qualifications are more difficult to obtain (i.e. more costly) for recruits with low learning abilities than for recruits with high learning abilities. This example meets all four credibility conditions: it is relevant, verifiable, costly, and discriminating (Spence, 1973).

What happens when we apply these four conditions of credible signalling to the regulatory context? We have developed a simple model that tests the first three conditions. The fourth condition, discriminating power, is then added to the model.

4. How do signalling dynamics work in the regulatory context?

Imagine a thought experiment investigating the behavior of two specific firms with different characteristics. Firm A has an adequate level of compliance. It might make some mistakes and unintentionally break a rule or two, but in general it is willing and able to comply with the rules and regulations. Firm B, on the other hand, has a low level of compliance. It might be able, but is certainly not willing to play by the rules. By breaking the rules, for example by failing to treat customers fairly, it can sell lower quality products at similar prices to Firm A's. As a result the lower compliance Firm B makes more profit than Firm A. These dynamics are quite pervasive in financial markets and other regulatory areas. It is costly to stick to the rules and a lot of money can be made by bending or breaking them.

The financial regulator is currently undertaking an annual standard assessment of the estimated compliance level of all firms. Only the ones that are deemed 'high risk' will be investigated thoroughly as there is no time to investigate all the firms characterized as 'medium' or 'low' risk. Before and during this assessment process the managements of Firm A and Firm B have the opportunity to send relevant, verifiable and costly signals to the regulator, in line with the first three conditions outlined earlier.

The management of both firms will need to undertake some cost-benefit analysis of investing in these signals, answering two questions:

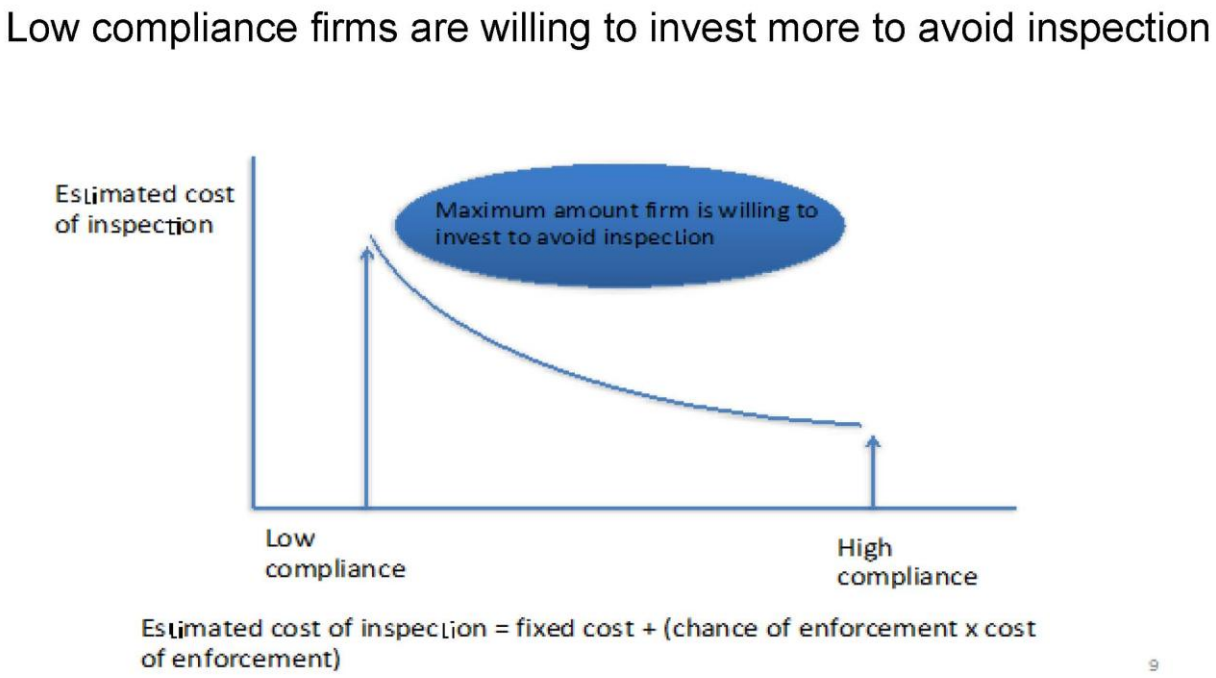
1. *How much would a regulatory investigation cost?*

Both firms face the same fixed costs of an investigation, but due to its lower compliance level, Firm B's variable investigation costs are much higher. When the regulator finds out the true compliance level of Firm B it will almost certainly take corrective measures, as consumers are clearly hurt and the breaches are clearly intentional. It will probably impose a hefty fine and will make sure that consumers are at least partly compensated for their losses.

One can reasonably imagine two generic rules that will apply to all cases:

1. The lower the observed level of compliance, the greater the probability of enforcement;
2. The lower the observed level of compliance, the larger the total costs of enforcement.

Given these two rules the relationship between the compliance level and the costs of a thorough investigation will look something like this:



2. *To what extent will investing in a signal reduce the probability of an investigation?*

It is difficult to predict precisely what effect sending a relevant, verifiable and costly signal will have on the probability of getting investigated by the regulator, as there are many factors involved. Let's assume for the sake of argument that the regulator reduces the probability that a firm is investigated by a certain amount per signal. And let's assume that the probabilities of an investigation prior to signalling for Firm A are low (due to its estimated high compliance level) and for Firm B are high (due to its lower estimated compliance level). It is now possible to analyse who will invest more in signals that are relevant, verifiable and costly.

5. So…who is investing in costly signals?

Let's start with Firm A, the good guys. They have a low probability of an investigation. By investing in a signal they can further reduce the probability of an investigation that would cost them a moderate amount, and save a little money. However, each signal requires an investment that may be greater than the money saved by sending the signal. It therefore makes no sense for Firm A to invest in one or more 'good compliance' signals that cost more than they are worth.

The model works differently for Firm B, the bad guys. They have a high probability of an investigation that would cost them a large amount of money. By investing in a signal, they can reduce the probability of this expensive investigation. They would clearly benefit from investing in a 'good compliance' signal.

This leads to the interesting notion that the compliant firm doesn't make an investment in a signal of good behavior and the non-compliant firm invests in as many signals as it can. Under all reasonable assumptions, low compliance firms have much more to gain from increased credibility than high compliance firms. Therefore low compliance firms will be willing to invest much more to convince

regulators that they are actually substantially complying, and thus to reduce the probability of an investigation. This analysis leads to our first two findings:

- In a scenario where signals are relevant, verifiable and costly, low compliance firms will be willing to invest more in credibility signals than high compliance firms.
- Regulators should be suspicious of firms that are using costly signals to convince them of their high level of compliance. These signals may not be credible and can even be contra-indicators (indicators of low compliance levels).

6. If you add discriminating power to the signalling mix…

We will now consider signals that not only are relevant, verifiable and costly, but also have discriminating power. In short, these types of signals are more costly for low compliance firms than for high compliance firms. As a result, this type of signal discriminates between low and high compliance firms, leading to a much higher credibility.

One example of a discriminating signal is an independent audit of the firm's compliance level. Another is proactively inviting the regulator to do a full regulatory scan of the firm's sales practices which, if accepted by the regulator, will make the firm's actual compliance level fully transparent.

If Firm A invests in a signal with discriminating power, as described above, two elements of the model are expected to change. The probability of an investigation may slightly increase, because an invitation to inspect focuses regulatory attention on the firm and lowers transaction costs for the regulator to perform an investigation. If, as is likely, the regulator has some form of output performance metrics (such as 'number of firms investigated per quarter'), this will be a tempting invitation.

The second element of the equation that will change is the probability of enforcement. The regulator will almost always find some faults as a compliance level of 100% is difficult to achieve. However, the regulator will probably also conclude that these breaches seem to be unintentional and relatively minor and it will be mindful of the fact that the investigation was a direct result of the fact that Firm A invited the regulator. This will most probably lower the probability of an enforcement action. It is not sensible for a regulator to enforce non-compliance that is probably unintentional, relatively minor and from a firm that is fully cooperative and has invited the regulator to come and inspect. Even if it were to enforce, the regulator would treat the cooperativeness and the proactive invitation as a mitigating factor.

7. …the low compliance firms will signal less

The signalling dynamics work differently for Firm B. Recall that this firm has a high probability of an investigation due to its relatively low estimated compliance level.

If this firm sends the same 'come and inspect me, I have nothing to hide' signal the probability of an investigation will change. The regulator will most probably receive this signal with some skepticism as it contradicts the earlier low compliance estimate. Given the fact that the signal contradicts the regulator's estimate and lowers the inspection costs, it is reasonable to assume that the probability of an investigation will rise.

If the regulator decides to start an investigation it will find out that the breaches are severe and most probably intentional. As a result it is to be expected that the probability of enforcement will be very high. Given the severity of the breaches the regulator will give little or no credit for the proactive behavior of the firm. In general, this signalling strategy will not be beneficial for low compliance firms as long as the discriminatory signal leads to an increased probability of enforcement.

We can now see that 'discriminatory power' is one of the most important characteristics of a credible regulatory signal. The larger the difference between the signalling costs for the high compliance firm

and the low compliance firm, the better the signalling will work. Consequently, it is not the direct investment required to send a signal that determines the credibility of a signal but the difference in signalling costs for low and high quality firms, thus the degree to which a signal has discriminatory power. A costly signal with no discriminatory power will have low credibility as it pays for low compliance firms to invest in this type of signal.

8. Conclusions

1. The relationships between regulators and regulated firms are characterised by strong information asymmetries. Regulated firms have more information about their compliance levels than regulators, which regulators need access to in order to allocate their resources effectively.

2. Public value would be increased substantially if regulated firms were able to credibly signal their true compliance level. Regulators would be more successfully able to target their scarce resources on the highest risks, and firms with high compliance levels would save the fixed costs of investigations.

3. Based on signalling literature, signals need to be relevant, verifiable, costly and discriminating in order to be credible.

4. However in the regulatory context relevant, verifiable, and costly signals can easily lead to perverse effects. Low compliance firms can increase their profits by breaking the rules and therefore have incentives to invest more in costly signals to keep the regulators away and to reduce the probability of a thorough inspection.

5. To be credible, compliance signals need also to be discriminating. Signals with discriminatory power are more costly for low compliance firms than for high compliance firms. If this difference is high enough only high compliance firms will be able to send discriminatory signals and consequently the regulator will be able to distinguish high compliance firms from low compliance firms.

6. In order to promote this public value enhancing signalling system, regulators should consider a policy framework that tolerates unintentional regulatory breaches by firms with high compliance levels (but not more serious breaches).

References

Bird, R. & Smith, E. (2005), Signaling theory, strategic interaction, and symbolic capital, Current Anthropology, 46: 221-248.

Certo, S. (2003), Influencing initial public offering investors with prestige: Signaling with board structures, Academy of Management Journal, 28: 432-446.

Connelly, B., Certo, S., Ireland, D. & Reutzel, C., (2011), Signaling Theory: A Review and Assessment, Journal of Management, 39-67.

Llewellyn, D. (1999), The Economic Rationale for Financial Regulation, FSA Occasional Papers in Financial Regulation, p. 34-41.

Moore, M. (1995), Creating Public Value, Strategic Management in Government, Harvard University Press.

Suazo, M., Martínez, P. & Sandoval, R. (2009), Creating psychological and legal contracts through human resource practice: A signaling theory perspective, Human Resource Management Review, 19: 154-166.

Spence, M. (1973), Job Market Signaling, Quarterly Journal of Economics, 87: 355-374.

Spence, M. (2002), Signaling in retrospect and the informational structure of markets, American Economic Review, 92: 434-459.

Stiglitz, J. (2000), The contribution of the economics of information to twentieth century economics, Quarterly Journal of Economics, 115: 1441-1478.

Zhang, Y. & Wiersema, M. (2009), Stock Market Reaction to CEO certification: The Signaling Role of CEO background, Strategic Management Journal, 30: 693-710.