

REGULATION: MANAGING THE ANTIMOMIES OF ECONOMIC VICE AND VIRTUE

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[Forthcoming in the 25th Anniversary Issue of Social & Legal Studies (2017) vol. 26 Issue 4.]

ABSTRACT

In the quarter-century that SLS has been published, regulation has emerged as a new, and for many exciting, inter-disciplinary field. The concept itself requires a wider view of normativity than the narrow positivist one of law as command. It is certainly protean, ranging over many fundamental questions about the changing nature of the public sphere of politics and the state, and its interactions with the ‘private’ sphere of economic activity and social relations, as well as the mediation of these interactions, especially through law. This survey aims to outline and evaluate some of the main contours of the field as it has developed in this recent period, focusing on the regulation of economic activity. Regulation is seen as having emerged with the withdrawal by governments from direct provision of many economic and social services, to be replaced by corporatist bureaucracies and quasi-public agencies managing the complex public-private interactions of financialised capitalism. The arguments for ‘smart’ regulation have, in an era fixated on neo-liberalism, generally legitimised delegation of responsibility to big business. Its advocates, having been drawn into policy fields, have perhaps too often lost their critical edge, and allowed it to become instrumentalised, reflecting the technician character of its practice.

1. ORIGINS AND APPROACHES

The recent concern with regulation emerged in the 1970s, as a field of political battle as much as scholarship. The first issue of *Regulation. AEI Journal on Government and Society*, published by the Cato Institute, aimed to address the ‘extraordinary growth in the scope and detail of government regulation ... one of the two or three most significant political facts of our times’ (Brunsdale, 1977: 2). A paper in the same issue by Irving Kristol, while recognising the need for regulation and even for its increase in a complex society, attacked the ‘new class’ who in his view benefited from powerful government, naming them as Naderites, with career jobs in US agencies such as EPA or OSHA (Kristol, 1977).

This critique drew on the economic analysis of the politics of regulation by Stigler, who argued that ‘as a rule, regulation is acquired by the industry, and is designed and operated primarily for its benefit’ (Stigler, 1971: 3). Although in some ways similar to analyses of regulatory ‘capture’ more familiar in socio-legal studies, this perspective challenged the need for regulation, while more left-wing approaches tended to take that necessity for granted, seeing ‘capture’ as diverting public purposes to private ends. The right-libertarian critique of the arguments for government action targeted the weaknesses of the assumptions for such action in classical welfare economics, and saw capture as intrinsic to state action.

Far from being tamed, and despite the dominance of neo-liberal ideas since the 1970s, regulation has continued to expand. Nevertheless, the battles continue today, as one of the

¹ I am grateful for comments from two anonymous reviewers, and to Dave Campbell for his contributions, not least in our stimulating debates and collaborations over the years, despite some sharp disagreements. I am entirely responsible for remaining errors and the inevitable limitations of this paper.

first actions of the Trump administration was to slash the budgets of these same agencies. Once the Reagan-Thatcher era was under way, the field became more mainstream, for example with the foundation of the *Yale Journal of Regulation* in 1983. In the US, of course, it became dominated by the law and economics perspective, which saw regulation as government ‘intervention’ in market transactions, justified only by ‘market failures’, due to ‘bounded rationality’, ‘information asymmetry’, or where the costs of market transactions exceeded those resulting from government action.

In parallel, a very different approach led to the formation of a ‘regulation school’, based in France, which later established its own *Revue de la Régulation*.¹ It resulted from the seminal Marxist revisionist work of Michel Aglietta (Aglietta 1976/1979), building on the concepts of social reproduction and regimes of accumulation. Although this perspective was also focused on the economic, it was a very different one from that of law and economics, as it stemmed from political economy and economic sociology. Also, it was concerned with bringing broader social science perspectives into economics, while the economic analysis of law led to mutually reinforcing formalisms (Campbell and Picciotto, 1998). While law-and-economics considered regulation to be an external political intrusion into economic activity, seen essentially as consisting of natural processes of market exchange, the French regulation school viewed the economic sphere as part of the ensemble of broader social relations.

Despite their differences, the two approaches had some commonalities. In particular, they both pointed to the need for analysis of the role of law and institutions in economic activity. They can also be seen to have emerged in response to structural social and economic changes, following the end of the thirty-year period of post-war capitalist growth in the crisis of 1973-4. The impact of these changes varied in different countries, largely due to the differences in their historical patterns. In the USA, state involvement in the economy had long taken the form of regulatory agencies, dating back to the emergence of large-scale corporations in the progressive era of the early 20th century, extended in the New Deal of the 1930s. Hence, there the debate concerned the extent and form of regulation by state agencies (e.g. Bardach and Kagan 1982; Noll, 1985).

In contrast, other capitalist countries developed a ‘mixed economy’, with more direct governmental involvement, through state ownership of infrastructure industries, as well as of other socio-economic activities regarded as necessary for public welfare, such as broadcasting, and health-care. Some countries went further, and attempted various forms of central planning of the economy, while of course state ownership and central planning were systemic in the soviet bloc. In these countries, the battle-ground in the 1980s and 1990s was privatisation, and the defenders of welfare states and public provision at first generally viewed regulation with suspicion. This suspicion was sometimes shared by neo-liberal promoters of privatisation, some of whom took the rhetoric of free markets seriously, adopting market fundamentalism and deregulation, for example in New Zealand (Kelsey 1995). The fixation on the illusory notion of ‘free markets’ by both the advocates and opponents of neo-liberalism perhaps helps to explain why the ‘regulation school’ did not spread much beyond France, and why interest in the study of regulation took longer to emerge outside the USA.²

However, by the early 1990s leading advocates of privatisation and liberalisation also accepted the need for ‘good governance’, involving appropriate legal and regulatory frameworks for economic development. Notably, after a decade of structural adjustment policies undermining public provision in developing countries, in 1989 the World Bank identified a ‘crisis of governance’ in sub-Saharan Africa, then published a more general report on *Governance and Development* in 1992, culminating in the 1997 World

Development Report, *The State in a Changing World*. This was deftly analysed in this journal by Lawrence Tshuma, who showed how, just as the Bank's earlier attack on public provision by states was powered by public choice theories, its 'governance turn' was underpinned by institutional economics (Tshuma, 1999). He went on to dissect the similar volte-face of the International Monetary Fund following the financial crises of the mid-1990s, switching from fervent advocacy of liberalisation to concern with the reform of the 'international financial architecture', and he also explored the tensions in the new paradigm of international regulatory networks (Tshuma, 2000).³

In the year this journal was founded was published *Responsive Regulation* by Ian Ayres, a product of Yale (like others who contributed to the field, notably Susan Rose-Ackermann), and John Braithwaite, an Australian criminologist and philosophical republican, whose previous work on corporate crime in the pharmaceutical industry had led him to research into more effective modes of regulation (Braithwaite, 1993). This reflected the sociological turn in criminology, which had led to a concern with governance, seen in the UK in the work of W. G. Carson and others (Brannigan and Pavlich, 2007). An insightful and carefully empirical paper by John and Valerie Braithwaite on rules and standards in nursing home regulation was published in this journal (Braithwaite and Braithwaite, 1995). They went on to found the Regulatory Institutions Network (RegNet) at the Australian National University in 2000, and a recent edited collection testifies to the wide-ranging applications and continuing debates it fostered (Drahos 2017).

Ayres and Braithwaite aimed to 'transcend the deregulation debate', and their book proved seminal. It argued that regulation, especially of business and economic activity, should not be a top-down system of command and control, but should be viewed as an interactive process, involving both firms themselves and civil society actors, with the 'big stick' of the state being a last resort. The interplay between state and private ordering should be responsive to industry structure, and attuned to the motives of the different actors. The state could promote private regulation through 'enlightened delegation' of regulatory functions to public interest groups, to unregulated competitors, and even to regulated firms themselves, but this should be neither wholesale nor unconditional. The best government strategy should be negotiated self-regulation, agreeing goals while leaving the attainment of them to industry, but making it clear that socially suboptimal compliance would lead to escalation up the 'enforcement pyramid' of intervention, a trope formulated by Braithwaite, which has been central to his work. It built on the work of Hawkins and others, which showed that those responsible for enforcing law generally begin with persuasion and negotiation, and view prosecution as a last resort, used against those considered recalcitrant (Silbey, 1984; Hawkins, 1984; Hawkins, 2002). Hence, it fed into the 'common sense' of regulators, although it was also underpinned by Braithwaite's civic republicanism (Mascini, 2013: 55).

The book also drew on the work of Nonet and Selznick at Berkeley on the emergence of 'responsive law', as an evolution from 'repressive' and 'autonomous' legal orders, and in response to the crisis of legal formalism characteristic of autonomous law (Nonet and Selznick, 1978). A variation of this, 'reflexive law', was developed by Guenther Teubner, melding the ideas from Berkeley with German sociological influences from Habermas and Luhmann, in the stimulating atmosphere of the socio-legal school at Bremen (Teubner, 1983). Braithwaite later acknowledged the affinity: while rejecting the view of autopoiesis that regards law and business systems as 'normatively closed and cognitively open', he accepted the relevance of Teubner's 'regulatory trilemma' (Braithwaite, 2006: 885).

This means that: either law, politics and/or the social area of life will be mutually indifferent, or juridification will have disintegrating effects on politics and/or social

sectors concerned, or, finally, law itself will be exposed to the disintegrating pressures to conform of politics and/or social sectors (Teubner, 1987: 27).

Braithwaite articulated the trilemma as follows:

‘[a] law that goes against the grain of business culture risks irrelevance; a law that crushes normative systems that naturally emerge in business can destroy virtue; a law that lets business norms take it over can destroy its own virtues’ (Braithwaite 2006, 885).

This approach to regulation was inherently multi-disciplinary, going beyond the tentative explorations of issues such as enforcement discretion, notably in British public law (e.g. Hawkins, 1992). However, the mushrooming growth of regulatory agencies especially in the UK following extensive privatisations, brought more public lawyers to study the phenomenon. For some this involved devising a common law equivalent to German *Wirtschaftsverwaltungsrecht*, or French *droit public économique* (Ogus, 1994),⁴ while also bringing a constitutionalist perspective (e.g. Prosser, 2010). Such work also transcended disciplinary boundaries, drawing on the politics of government relations to big business (Hancher and Moran, 1989), and then on new approaches to accounting concerned with the management of risk, explored at the Centre for Analysis of Risk and Regulation at the LSE (Baldwin, 1990, 1997; Power, 1997). There, Julia Black in particular introduced the concepts of ‘decentring’ (Black, 2001), and of ‘regulatory conversations’ (Black, 2002). The field of regulation could also draw from legal pluralism, since regulatory regimes often entail a variety of normative forms of ‘soft law’ as well as formal ‘hard law’. Deriving some of its rootstock from criminology also perhaps explains the breadth of issues to which it has been applied, many primarily social rather than economic, such as health-care and peace-building. However, in this survey we are primarily interested in approaches to the regulation of economic and business activity.

The emergence of these ideas and approaches reflected the enormous growth since the 1980s of new forms of social and economic control and coordination, which generally filled the gap left by the retreat of governments from direct management of economic activity. These have been described by some as a new ‘regulatory state’ (Majone 1993, Loughlin and Scott, 1997; Braithwaite, 2000; Moran, 2003), and even ‘regulatory capitalism’ (Levi-Faur and Jordana, 2005; Braithwaite, 2008); although the term ‘regulatory governance’ is perhaps more in vogue. The phenomenon has also been described from a more critical perspective in terms of changes in ‘governmentality’ (Rose and Miller, 1992). Drawing on Foucaultian notions which see power as diffuse rather than concentrated in ‘the state’, this perspective could perhaps more easily grasp the changes in the character of political power, although it has also resulted in eclecticism.⁵ From the viewpoint of political economy, the new entanglements and ‘public-private-partnerships’ between big business and public bureaucracies could be better described as the latest phase of corporatist capitalism (Picciotto, 2011a).

It is not surprising that *Social & Legal Studies*, as a generalist socio-legal journal with a critical social science perspective, should have published only a scattering of papers dealing with regulation, although they have covered many of the key issues in the field. In the next sections we will survey these issues, drawing on work published both in SLS and elsewhere.

2. CHANGING PUBLIC AND PRIVATE FORMS AND INTERACTIONS

Some critics have argued forcefully that the theories of regulation have overlooked the need for state action to curb the essential amorality of profit-oriented corporations; without such action, ‘as the historical record demonstrates, the result is the wide-scale production of death,

injury and illness, destruction and despoliation, not to mention systematic cheating, lying and stealing' (Tombs, 2002: 114).

From this perspective, Steve Tombs and David Whyte have analysed the experience of occupational health and safety in the UK (Tombs and Whyte, 2013). This is a paradigm case for responsive regulation: in 1974 the Health and Safety at Work Act replaced the rigid prescriptive rules of the Factory Acts, dating back to the 19th century, with the broad principle of a duty on employers to do all that is 'reasonably practicable' to ensure the health, safety, and welfare of employees. The detailed content of this formal legal obligation was to be specified in a range of context-specific codes, formulated in consultation with worker representatives in industries and workplaces. Aiming to show the reality of this regime in practice, Tombs and Whyte trace the shift from the emphasis on deregulation under Conservative governments after 1979 to 'better regulation' under the 1997 Labour government and then 'light touch' regulation in Labour's second phase. They show that the Hampton report of 2005, which approvingly cited Ayres and Braithwaite, was used to justify the prior policy decision to adopt a strategy of cooperative relationships and risk-based targeted enforcement. This led to a steep decline in both prosecutions and inspections, which they argue was self-defeating, since the reduction of inspections deprived the authorities of the intelligence essential to targeting interventions (Tombs and Whyte, 2013: 13). However, they do not present evidence of the outcomes of the new regulatory approach, although its impact would be hard to evaluate in view of the enormous changes in the nature of workplaces. Nevertheless, it is hard to envisage the safety of the complex work-places of today being governed by prescriptive statutory rules. Their criticism seems directed at the laxity of enforcement rather than the form of regulation adopted.

Conversely, there have been dramatic failures of public or state regulation. A notable case, examined by David Campbell and Bob Lee, was the foot-and-mouth disease (FMD) outbreak in the UK in 2001, which resulted in large-scale slaughter of over ten million animals at a direct cost of £9b (Campbell and Lee, 2003). They show how the pandemic was the inevitable result of regulatory decisions: the abandonment of prophylactic vaccination, the consequent reliance on 'stamping out' outbreaks by slaughter, the encouragement of rearing practices involving extensive live animal movements, and the completely bungled response to the 2001 outbreak, which began with tardy and ineffective identification and isolation of the disease, then accelerated into a national emergency and the deployment of military force. The escalation from cull to carnage could be seen as a parody of Braithwaite's enforcement pyramid, culminating in the deployment of a very big stick indeed. However, the fundamental cause to which they point was the inability of the bureaucrats in the ministry of agriculture to understand the realities on the ground of the industry they so closely regulated.

More specifically, they criticise the failure of any public body to evaluate alternatives to the slaughter policy, especially that of official inaction. Although highly contagious, FMD is not normally fatal to animals (though it affects their productivity), is not transmitted to humans, and vaccination is available. The slaughter policy resulted from the view, later articulated by one expert, that capacity was not available to carry out a full evaluation of alternative disease control methods, and consequently that control should be a collective rather than an individual responsibility (Campbell and Lee, 2003: 448-449). Campbell and Lee reiterate the powerful arguments of Ronald Coase, challenging the justifications for state action in Pigou's welfare economics, which assumed the need for public action to be inherent in certain types of activity, regardless of empirical evidence. These assumptions persist today in debates about activities such as water supply, which are often conducted in terms of the instinctive feelings of the participants either that they should be 'public', or that they would be better managed by 'private' business. Campbell and Lee also recall that Coase expressed his

critique as an attack on ‘blackboard economics’, and that his approach drew attention particularly to the legal and institutional framework.

There are two additional important aspects to this analysis, which also underlie the shift to the regulatory state. One is that legal rules can be designed to ensure that the costs of activities are borne by those who can most appropriately bear them. The other is the critique of bureaucratic rationality, as opposed to dispersed decision-making, characterised in economic terms as ‘the market’. A policy of inaction towards FMD would leave it to farmers to decide whether to adopt vaccination, and to weigh the costs of prevention against the impact of the disease on productivity, and perhaps also on the welfare of the animals in their charge. However, Campbell and Lee seem to accept that public authorities should protect outcomes which private interests would otherwise neglect.

Indeed, defining the appropriate roles for public authorities and for private actors, and ensuring their fruitful interaction, has been central to much work on regulation. A common pattern has been for public authorities to abandon prescriptive rules, in favour of specifying desirable outcomes while leaving the methods for attaining them to private actors. Such performance- and process-oriented regulatory regimes have emerged especially in sectors dominated by large corporations, not least because they control the complex technologies involved. Such regimes have been studied by researchers, often in the context of dramatic regulatory failures. A notable example is deep-sea oil and gas drilling, dramatised by the Deepwater Horizon explosion and oil spill of 2010. The causes were a series of mistaken engineering decisions by BP and its contractors (Transocean and Halliburton), partly attributable to cost-saving. These took place following the shift to a process-oriented regulatory system, with one regulator characterising the relationship to the offshore industry as ‘more a partner than a policeman’ (Mills and Koliba, 2015: 83). From the viewpoint of regulatory theory, the issue can be analysed in terms of the design of lines of accountability and their interactions, with this case demonstrating the dominance of shareholder as against consumer, administrative/professional or democratic accountability (*ibid.*).

Another recent example of the limitations of process- or performance-based regulation is diesel pollution emission standards. This was revealed by the admission in 2015 by Volkswagen, the world’s largest auto manufacturer, that for seven years it had been selling cars that satisfied the legal standards only under laboratory conditions, while vastly exceeding them in real life on the road, due to the deliberate installation of a defeat device. The failure was revealed by a small civil society organisation, paying for tests from its own budget, which was less than 1% of the EPA’s. It is not clear that the use of the defeat software was illegal, since the engines complied with the prescribed tests, so the prosecution of Volkswagen was settled by a \$15b payment. The EPA’s regulatory framework was clearly defective, having failed to require the use of on-road testing methods, despite their availability, and despite a previous experience of the same type of evasion by heavy-duty diesel manufacturers (Coglianese and Nash, 2017). It has subsequently become apparent that other firms were also involved in such practices.

These examples show, at a minimum, that new approaches to regulation have been adopted enthusiastically by governments in a context of cuts in public expenditures. Also, regulatory theorists, perhaps seduced by their influence on public policy, have preferred to emphasise the advantages of cooperation rather than to advise guarding against its pitfalls. Even for advocates of new forms of regulation, there is clearly an important role for regulators. Braithwaite’s theory of ‘pyramid’ enforcement recognised this, although the concept of the ‘big stick’ clearly needed refinement, and empirical studies have pointed to various problems and limitations (Mascini, 2013: 50-53). Instead, the role of public regulators has been

attenuated to that of enabling corporate self-regulation, while attempting to inculcate responsibility in corporate decision-making and action, through what has been described as 'meta-regulation' (overarching regulatory standards for regulation) (Parker, 2002: 29).

For both deep-water drilling and diesel emissions, there was not inaction or abstention from regulation by the state, leaving the problem purely to 'market' processes, as Campbell and Lee suggested should have been considered for FMD control. Nevertheless, process-oriented regulation delegated substantial responsibility to the corporations in the industry concerned, although backed by legal sanctions. The considerable social and environmental damage caused by their failures also inflicted enormous economic costs on the corporations themselves. These included both private civil liabilities from tort claims by those directly harmed, and public penalties resulting from criminal prosecution, as well as the government imposition of a compensation and clean-up regime (in the case of BP). That neither BP nor Volkswagen was bankrupted by the billions in liabilities they incurred was due to their giant size and concomitant profitability. This was also the reason for their ability to invest in the complex technologies involved, and master them beyond the capacity of a public regulator to comprehend adequately.

This suggests that key elements in a regulatory system are the rules on legal liability for harm, and those governing the corporate form. If liability rules are suitably designed, then it may be appropriate that those involved in a potentially dangerous activity should have the primary responsibility of managing it safely, as well as bearing the costs. However, the corporate form clearly creates much stronger incentives for directors and managers to maximise profits for shareholders than to consider the wider and longer-term responsibilities of the business.

The regulatory failure which has had the widest repercussions has of course been the great financial crash. The emergence of a complex system of transnational financial regulation began with the collapse of the Bretton Woods fixed exchange rate system, due largely to the exploitation by transnational corporations and banks of partial financial liberalisation to undermine the national controls on which it rested. The moves by US banks to set up branches 'offshore' (including in London) also escaped national regulation such as the separation of investment and retail banking. The resulting extensive liberalisation since the 1970s opened up markets, but also resulted in more far more formalised rules (Vogel, 1996).

This was not a smooth process, but a conflictual and often chaotic one, with new forms of regulation being introduced and then reformed, often reacting to failures. Indeed, the period from 1973 saw a series of financial and especially banking crises, in sharp contrast to the previous era of national monetary management and bank supervision, when there were none (Reinhart and Rogoff 2009, pp. 204-8). In reaction to successive dramas and crises, informal oversight by central banks and finance ministries was replaced with a proliferation of regulatory commissions and agencies and a massive expansion of their rulebooks. Financialised capitalism has also been characterised by frenetic innovation in complex instruments and transactions, largely in symbiotic relationship with the formal rules, due to regulatory arbitrage and avoidance.

Hence, contrary to many conventional accounts, finance has become highly regulated nationally and internationally, but in forms favouring private or quasi-public self-regulation. Crucially, these forms of regulation took for granted the structural underpinnings of the markets and the factors which led to their meteoric growth. They focused instead on measures aiming to ensure the soundness of the participants, which in practice gave these actors the support and indeed the stimulus to turn finance into a self-sustaining sphere of circulation and speculation.

Much of the regulation has been done by private industry bodies: exchanges, clearing houses, credit rating agencies (CRAs), and private associations such as the International Swaps and Derivatives Association (ISDA). A key role was played in particular by the CRAs, such as Moody's and Standard & Poor's, which evaluate financial instruments and the creditworthiness of their issuers, both firms and governments (Sinclair, 2005). These agencies, although private and profit-making companies, were in practice given an official status, since their ratings have important regulatory consequences.⁶ Hence, they form in effect a state-backed oligopoly. However, their private interest in expanding the market for their services meant that, especially in the development of new forms of structured finance, they became 'more like gate openers than gate-keepers' (Partnoy, 2006: 60). Although the problems with their role became evident with the collapse of Enron and others in 2001-2 (ibid.), no significant moves were made to establish tighter controls on the CRAs. Their lax ratings of complex securities were a major contributory factor causing the bubble in mortgage finance and the crisis of 2007-8 (BIS, 2009: 8-9).

Regulation by public authorities with responsibility for stability and security of the financial system concentrated on allocating responsibility for supervision of entities and establishing prudential standards for them, mainly in the form of capital reserve requirements. This emerged as a process of international re-regulation through interacting regulatory networks, in which the Basle Committee on Banking Supervision (BCBS), formed in 1974, played a key role. Meantime, regulators generally adopted a hands-off attitude towards financial transactions, further encouraging the proliferation of complex forms of finance.

However, the BCBS standards could only operate as 'meta-regulation', to be applied (and interpreted) by national regulators. Furthermore, the increasing complexity of financial derivatives led to a shift away from prescriptive capital requirements, so that the Basle II standards established 'meta-regulation' standards for the banks' own internal risk models. The UK bank Northern Rock, which failed in September 2007, had only a few months previously been granted a regulatory waiver, on the grounds that its internal model had been adequately stress-tested. These models used the 'Value at Risk' concept based on the assumptions of efficient market theory put forward by financial economists, many of whom became well-remunerated advisers to financial trading firms. Although these techniques were criticised at the time by some, they shaped the frenetic financial trading that led to the crash (MacKenzie, 2006). A retrospective evaluation concluded that 'Modern Financial Theory rests on unsound assumptions and should largely be ditched. Some of its main pillars ... have been pretty much exploded. [It] also provided guides to action so false that they perverted the financial markets, causing trillions of dollars in losses, and damn near brought down the world financial system. However, its adoption as Holy Writ served the economic self-interest of Wall Street and in many cases was allowed to drive out previous superior analytical methods' (Dowd and Hutchinson, 2010: 403).

As is well known, the crash resulted in publicly-funded bail-outs for the banks: the costs were estimated to have averaged 5.2% of GDP for advanced G20 countries (IMF, 2009: Table 1). Participants in the banking and financial services industries had reaped enormous personal rewards during the boom, due in no small measure to the implicit guarantee that their activities would be backed by governments acting as lender-of-last-resort, which stimulated speculation. Yet few of them suffered significant penalties after the crash. The regulatory framework had enabled the finance sector largely to internalise the profits and externalise the costs of its activities. Although the crisis resulted in much recrimination and soul-searching, regulatory reforms have been half-hearted, side-lining more radical ideas such as reverting to mutual- and social-ownership forms for banking (Kotlikoff, 2010).

The examples discussed in this section are obviously egregious cases of regulatory failure, but they nevertheless reveal the fault-lines in actual regulatory systems, against which the theories can be evaluated. There clearly has been no easy transition to a 'regulatory state', but rather a disruption of pre-existing governance arrangements, played out differently in different countries and contexts. In the UK for example, Michael Moran has analysed the shift from closed communities of self-regulation, or 'club rule', to the formalisation and codification of regulation, resulting in what he describes as a roller-coaster ride of hyper-innovation and policy disasters, 'from stagnation to fiasco' (Moran, 2003: 155ff). Further, Peter Vincent-Jones has studied the new forms of public service management, analysing them as a process of contractualisation (Vincent-Jones, 2006).

While public structures have been disrupted and in some respects 'privatised', private institutional and legal forms have proved ill-suited to managing the wider social responsibilities which decentred regulation requires them to accept. The corporate legal form in particular has remained an essentially private one, despite much talk of wider accountability to 'stakeholders' as well as shareholders, and of 'corporate social responsibility'. The growth of formalised regulation has also exacerbated the tensions in private law: between contract as a discrete individual bargain and as a planning tool (Collins, 1999), and in the law of torts or obligations, between the regulatory and redress models (Goldberg, 2012). Scholars have addressed the relationship between regulation and these private law forms (Parker et al., 2004), but there remains uncertainty about what it would mean for private law to become more 'regulatory', and whether it could do so without losing its original and perhaps primary role. Vincent-Jones has offered a classification of the new forms of administrative contracts, and suggested ways in which they could provide effective governance structures through more effective reflexivity and democratic experimentalism (Vincent-Jones, 2007). However, Campbell argues that these 'social control contracts' are a misuse of the concept of voluntary agreement, and that the experimentalism is rather a stumbling from one failure to another (Campbell, 2007).

Indeed, it can be said that the rapid expansion of regulation itself results from the unsuitability of inherited legal and institutional forms, generally based on the private rights of individuals, for forms of economic activity which now take a large social scale and have extensive social and environmental impacts. Perhaps the starkest example of this is intellectual property rights (IPRs), which have developed historically as proprietary rights to exclude others from using assets. This private property concept has been continually strengthened, notably by extending copyright protection to utilitarian works such as software, and extending its duration, even though it is now highly inappropriate to an increasingly knowledge-based economy. Although there has been some counterbalancing growth of concepts of fair use and the public domain, there has been a significant expansion of the scope of IP protection, due to lobbying by corporate interests, supported by weak theoretical justifications. Amazingly, the expansion of IPRs has been advocated by 'free market' ideologues, contradicting their usual opposition to state intervention. Notably R.A. Posner, despite being a fierce opponent of state intervention either to provide 'public goods' or restrict competition, has supported the expansion of IP as an 'excludable public good', concealing the reality that it is a grant of monopoly rights delivering those public goods into private hands (Campbell and Picciotto, 2006: 443). The need to manage the tensions between private IPRs and the realities of the 'sharing economy' has led to an enormous growth of regulatory arrangements governing matters ranging from copyright licensing to access to plant genetic resources (Picciotto, 2011a: chapter 9).

Hence, a better design of traditional legal forms, especially those involving property rights, could reduce the need for extensive regulation (Picciotto, 2011b). Central to this is the

corporation, which is still considered as a form of private property owned by its shareholders. This protects senior executives and managers of oligopolistic firms from the downside risk of their decisions, while allowing them to appropriate, through share options and bonuses, a major share of the super-profits generated by the extensive social scale of their operations. The central justification for the complex and highly regulated public-private ‘partnership’ arrangements which now dominate the economy is that the ‘private’ sector is better able to manage risk, and this should be highly rewarded. The reality is that the large corporation is a cash-cow which can absorb large losses, with government as an ever-ready backstop, but in any event the worse that happens to its top executives is that they depart taking a significant slice of its capital, while faithful lower-level managers will generally be protected, although a few renegades and whistleblowers will be sacrificed.⁷

3. EXPERTISE, POLITICS AND THE ROLE OF LAW

A central feature of the ‘regulatory state’ is the delegation of public functions to agencies with considerable autonomy from central government, or ‘non-majoritarian regulators’ (Coen and Thatcher, 2005). This can be understood as an attempt to prevent ‘state capture’ by insulating decisions from the influence of politicians, and hence ensure that they are taken on their merits, ensuring stability and fairness for economic competition. Indeed, it is often politicians themselves who prefer to take a distance, and establish expert bodies to manage complex or conflictual issues on the basis of science or objective evidence. Together with the need for specialist knowledge, the role of technical experts is clearly central to regulation. However, it poses fundamental issues of both effectiveness and legitimacy, which are in many ways linked.

A major limitation of bureaucratic rationality is its reliance on abstractions and calculations, so that decisions are remote from the lived experience of those affected (illustrated by the FMD case discussed in the previous section). There is also awareness that the targets of regulation can adapt their behaviour, often in unpredictable ways, perhaps to defeat its aims – regulatory avoidance or evasion. The emphasis in regulatory theory on reflexivity, rather than command, attempts to overcome these problems, by suggesting a cooperative approach to both the formulation and the enforcement of rules. The primary concern of regulators is likely to be to ensure effectiveness, so that they prioritise consultation with the targets or subjects of regulation, to identify possible responses and hence improve compliance. However, this again courts the danger of capture, which could obviously compromise the wider social goals, and undermine the legitimacy of the regulatory regime.

Hence, regulatory systems face a fundamental dilemma. Their reason for existence is to provide expert decision-making insulated from politics and special interests, but this undermines democracy and raises the problem of legitimacy.

One response is to rely frankly on the authority of expertise and specialised knowledge. This has been justified on the grounds that the issues dealt with are non-political, since they do not affect income redistribution, but aim merely to achieve economic efficiency, an argument especially relevant to the European Union (Majone, 1999). More recently, commentators have more frankly accepted that reliance on technocracy is essentially paternalist (Barnett, 2016). A variant has had significant influence as ‘nudge’ policy under the ‘third way’ politics of Blair and Obama, resulting from the collaboration between the behavioural economist Richard Thaler and the public lawyer Cass Sunstein (Thaler and Sunstein, 2003). While they call this ‘libertarian paternalism’, it has been described as manipulative elitism (Campbell, 2017). However, Sunstein’s earlier work had criticised narrow technicist approaches such as cost-benefit analysis, and argued for greater space for democratic input into regulatory decisions (Pildes and Sunstein, 1995). He has also criticised the negative conception of

freedom he describes as consumer sovereignty and supported ‘a deliberative over an interest-group pluralist, or populist-majoritarian, or (unmentioned) Schumpeterian-elitist conception of democracy’ (Michelman, 2002, reviewing Sunstein, 2001).

More frequently, regulatory theorists have explored ways of remedying the democratic deficit of the regulatory state, with some support from practitioners, mainly by calling for accountability and transparency. However, these principles remain ill-defined, and contests over the form they take become part of the repoliticisation of regulation. Unsurprisingly, the subjects of regulation generally prefer to deal with regulators directly, preferably in private or ‘backstage’ (Reichman, 1992). Regulators also find this easier, not least because such discussions can often be conducted in a common technical language. Hence, most forms of consultation are aimed primarily or only at those affected, unless campaigners make enough impact to oblige politicians and officials to cast a wider net. More extensive consultation inevitably brings in different perspectives and considerations. For example, Fiona Haines has shown how consulting local communities about the risks posed by hazardous industries introduces a different perception of risk, obliging the regulated firms ‘to take on a more explicitly political role that required balancing assurances about socio-cultural and actuarial risk management while also dealing with economic pressures aimed at increasing profit’ (Haines, 2009: 411).

A more direct critique of technocratic decision-making has come from those who have drawn on the social studies of science and technology, derived especially from Bruno Latour. For example, Donatella Alessandrini deploys a range of examples to show that the debates on regulation of genetically modified organisms (GMOs) such as seeds and crops cannot be resolved by appeals to ‘nature’ or ‘sound science’, as if they were the realm of facts distinct from values, since scientific knowledge entails contested practices attempting to resolve uncertainties, often involving diverse scientific disciplines (Alessandrini, 2010). This suggests that democratising regulation must go beyond calls for wider participation in advisory committees, and requires involvement in the technical debates themselves of a variety of specialists, in this case not only microbiologists and ecologists, but including ‘farmers, activists, environmentalists, economists, philosophers and social scientists’ (ibid.: 19).

Further, some philosophers have argued that for such debates to be fruitful requires a shift from an objectivist to a democratic concept of rationality, based on a deliberative interaction between different specialisms and perspectives, and awareness by specialists of the conditional or contingent nature of their expert knowledge and judgements (Dryzek, 1990; Wynne, 1992). This is very difficult to inculcate in practice, since professional competition encourages experts to make strong claims, and to rely on formalism and technicism (taking their specialist part for the whole), creating epistemological closure which excludes reflexive dialogue with others.

Legal expertise, of course, also figures in these interactions. One role is the routinisation of transactions in the face of technical uncertainty. For example, Riles’s rich ethnographic study of lawyers devising contracts for collateralisation of financial derivatives shows not only how they help to create markets in such transactions through ‘theoretical and doctrinal maneuvers’, but also how they regularise trading transactions through the routine back-office work (Riles, 2010: 798, 801). She stresses that these lawyers were ‘painfully aware of the limits of their own expertise’ (ibid.: 800), yet the collateral contracts they devised aimed to provide sufficient stability of expectations needed for trading, despite the inherent uncertainties of both portfolio valuation and of the likely legal outcome of a default.

Managing regulatory interactions, especially in the processes of enforcement and compliance, is mediated through the legal practices of interpretation due to the indeterminacy of legal principles and rules. Some have seen this in terms of ‘creative compliance’, or how a formalist approach to legal rules can facilitate avoidance – complying with the letter while defeating the intended purpose of the regulations (McBarnet and Whelan, 1991: 850). Valerie and John Braithwaite in this journal showed how regulation of nursing homes in the US based on prescriptive rules and ‘tick-box’ enforcement was less effective at evaluating the quality of care than using general principles and monitoring compliance through the more qualitative and consultative approach to inspection used in Australia (Braithwaite and Braithwaite, 1995), though one doubts that the latter would survive government cut-backs. This led to suggestions that effective regulatory design should combine broad statutory principles with more specific subordinate bright-line rules (Braithwaite, 2002).

Others have developed a fuller notion of ‘constructive compliance’, showing that the very meaning of legal rules is shaped by the interactions between regulators and regulatory subjects. This was pointed out in early work by Nancy Reichman (Reichman, 1992; see also McCahery and Picciotto, 1995; Picciotto, 2007), and explored in this journal by Bettina Lange in an empirical study of waste management site regulation (Lange, 1999). She showed how negotiation not only shaped the interpretation and application of the formal rules, but how ‘norms for what would be defined as compliance – in the day-to-day working practice of the waste treatment plant – arose out of social relationships’ (ibid.: 559). Black’s application of discourse analysis to ‘regulatory conversations’ is obviously very relevant here, exploring the relationship of language to meaning, thought, knowledge, and power (Black, 2002).

This work extends the understanding of regulatory capture beyond the politics of lobbying and the ‘revolving door’ shuttling professionals between public and private spheres. Although there is a tension between technicism and democracy, it is not an insuperable dichotomy – indeed law plays a central role in framing the relationship, although the problems lie well beyond the capacity of law to resolve (Fisher, 2007). Knowledge is inherently social, and lay people are inevitably dependent on the rational authority of experts, especially in a world of increased technological complexity (Hardwig, 1985). Thus, governance and regulatory fields have become dominated by ‘epistemic communities’ of experts (Haas, 1992), which however become prone to consensus thinking and ‘cognitive capture’ by dominant interests.⁸ This reinforces the arguments for both the democratisation of expertise, and the strengthening of professional accountability norms for experts, although these can also be used to marginalise unorthodox or critical views. This has become evident with the increasing debates within scientific communities over issues such as the standards and procedures for peer review and for the publication of research results and outputs.

4. REGULATORY NETWORKS AND MULTI-LEVEL GOVERNANCE

The character of regulatory regimes as decentred from national governments has also resulted from, and helped to shape, the emergence of forms of multi-level governance, resulting from economic globalisation (Braithwaite and Drahos, 2000). Indeed, the creation of the regulatory state could be said to have resulted from liberalisation due to the undermining of the hierarchical state-centred forms of national-international law, through a variety of legal techniques of forum-shopping, creation and exploitation of havens and ‘offshore’ jurisdictions, and regulatory arbitrage (Picciotto 2011a, chapter 2.3). Thus, a central characteristic of what some have described as the ‘post-national’ state is the haphazard emergence of internationalised public-private regulatory networks.

A central feature of this landscape is the interaction between regulators. This is often seen in terms of regulatory competition, a ‘race to the bottom’ or (perhaps less often) to the top

(Vogel, 1995; Murphy, 2004) – also termed ‘markets in vice, markets in virtue’ (Braithwaite, 2005). A paradigm case has been the regulation of international shipping. The use of flags of convenience undermined effective home state regulation, while eventually leading to a complex system of coordinated controls and inspection by port states, as well as flag state registration relying on private classification societies such as the American Bureau of Shipping and Lloyd’s (Couper et al., 1999). An ambitious multi-country study published in this journal found that only a weak ‘market in virtue’ had been created because of too few incentives, due mainly to inconsistent inspection standards (Bloor et al., 2006). A subsequent, equally insightful, paper found some improvement (though still a mixed picture) for ship safety, and none for labour standards, though significantly better compliance with environmental standards (on use of low-sulphur fuel). This success seemed due not to instrumental motives (since enforcement levels are low and financial rewards for non-compliance high), but to a ‘normative predisposition towards compliance’ and ‘an undeliberated, taken for granted assumption that operators should comply’, perhaps for reputational reasons (Bloor et al., 2013: 187).

It should also be borne in mind, however that, like all markets, regulatory competition exists within a framework of coordination, in forms such as conditional toleration of others’ standards, peer-review, mutual recognition of equivalence, administrative cooperation, and harmonisation. While such coordination may be underpinned by shared perspectives, it can also be backed by countervailing measures, denial of market access and non-recognition. In the global economy, an overarching framework has been created through treaties fostering liberalisation and market access for trade and investment flows. A key institution is the World Trade Organisation (WTO), as well as networks such as the bilateral investment treaties, now being negotiated on a ‘mega-regional’ scale, such as the Transpacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP).

These broad frameworks have established a form of global meta-regulation. Since they are essentially concerned with economic liberalisation, they act as ‘disciplines’ on national requirements if they can be seen as barriers to market access. The WTO in particular acts as a central institutional framework for the international coordination of economic regulation, through its wide-ranging package of agreements going well beyond trade. These effectively encourage the adoption of corporate self-regulation,⁹ and create requirements for a wide range of national measures to comply with international standards, generally developed by global standard-setting organisations, often dominated by experts from business and industry (Buthe and Mattli, 2011). Since virtually all countries are now WTO members, it acts as a powerful instrument for diffusion of regulatory models worldwide. In addition, the World Bank and the IMF have pressurised developing countries to introduce regulatory agencies especially following privatisation of infrastructure sectors (Dubash and Morgan, 2012).

In addition to formal frameworks such as the WTO agreements, the growth of global regulatory networks and communities has itself created transmission mechanisms for the transplanting of regulatory regimes. Notably, in the area of competition regulation, while efforts to negotiate a multilateral agreement (including in the WTO) have failed, a global community of experts has emerged, coalescing around semi-formal associations such as International Competition Network formed in 2001 (Djelic and Kleiner, 2006). Needless to say, such communities are not homogeneous but riven with professional and political rivalries, although nevertheless bound together by a common commitment to the ideologies and techniques of the field.

International transmission is also driven by other forces, such as labour- and consumer-based activism. Such movements are able to target the global supply chains of transnational

corporations, and forge new links between workers' and consumers' organisations (MacDonald, 2014, Eberlein et al, 2014). The Fair Trade movement developed a network of worldwide regulatory arrangements, involving two dozen labelling and producer organizations, backed by increasingly sophisticated research and social activism (Raynalds et al. 2007), leading also to attempts by firms such as Nestlé and Kraft to launch their own rival ethical brands. Forest certification systems, long studied by Errol Meidinger, provide an example of interactions among activists, government and industry-based regulation (Meidinger, 2006).

Given all these diverse interacting forces, it is clear that the global diffusion of regulatory arrangements follows very different patterns. Thus, sweeping universalist theories have limited traction, as pointed out by Fiona Haines in her study of the reform of industrial safety in Thailand in the aftermath of the Kader toy factory fire (Haines, 2003). Her paper applied the concept of culture to outline the elements for analysing 'regulatory character', to map how 'global rationalism' played out in the specific context of Thai reforms.

5. EPILOGUE: REFLECTIONS ON PRAXIS

It is perhaps appropriate to close this retrospective survey by considering the experience of regulatory regimes in navigating the trilemma identified by Teubner and Braithwaite (section 1 above), and of the role of regulatory theorists. The emergence of the phenomenon of regulation has also spawned an enormous growth of academic work, much of it reflecting the technicist character of the field itself. Instead of challenging the view of regulation as apolitical, and analysing it in the broader context of changes in the forms of capitalism and the state, research on regulation has tended to fit 'neatly into the neoliberal program of finding technical solutions to policy problems, rather than rethinking the balancing of relations between market, state, and civil society' (Mascini, 2013: 56). Indeed, some of those engaged in developing the theory of regulation have also been involved in its praxis, generally by contributing to government policy formulation. Theories of 'smart regulation' and the 'nudge' have been packaged to feed into policy debates (Campbell, 2017), meeting a welcome reception in a period dominated by concerns to reduce the size and role of governments while increasing the effectiveness of governance. Techniques such as regulatory impact analysis and consultation of affected parties have become ubiquitous, and embedded in government practice through legislation (OECD, 2002).

This ready reception can also be attributed to the message (in Braithwaite's words, quoted in section 1 above) that '[a] law that goes against the grain of business culture risks irrelevance; a law that crushes normative systems that naturally emerge in business can destroy virtue'. This can obviously be read as an injunction that regulation should be business-friendly, which has been welcome in policy circles, while also feeding the suspicion of critics of regulation, such as Tombs and Whyte, who argue that it fed into neo-liberal ideology (Tombs, 2017). Hence, it begs the question of how successfully regulation theorists have helped its practitioners avoid the third limb of the trilemma: 'a law that lets business norms take it over can destroy its own virtues' (Braithwaite 2006, 885). These questions can clearly not be tackled at such a high level of abstract generality, and broad-brush concepts such as the regulatory trilemma, as well as Braithwaite's pyramid, are over-simplified and somewhat mechanistic. However, something can perhaps be learned from how the questions are posed. The assumption behind them seems to be that regulation ('the law') is an external intrusion into 'business', albeit that regulation theory aims at harmonious interaction via 'reflexiveness'. Yet, as can be seen from the examples discussed in this paper (and many others), the reality may be different.

Neither 'business' nor 'the law' can be said to exist as separate spheres each with its own essential characteristics. On the one hand, the forms of business, and of 'the market', are actually constituted by legal rules. In particular, it is the corporate form that delineates the lines of accountability of company managers and employees, and dictates the priority they should give for example when balancing compliance with safety standards against the costs involved. The same applies to the judgments made by dealers in financial instruments when pricing client deals with knowledge of their company's own account trading; or by firms engaged in derivatives trading when calculating the value at risk for the company. In such contexts, it is demanding a lot to expect company managers and employees, especially when they are incentivised by share options and bonuses, to prioritise the general interest in stable finance, or even the long-term health of their own firm, over its immediate profitability or share price. As long as the legal forms structuring business remain focused on private or particularistic interests, the burden of upholding public or more general concerns inevitably falls on regulation.

Similarly, the law has no essential characteristics. In particular, it cannot be assumed to inculcate the general public interest. The example of the FMD measures discussed in section 2 shows the danger of making such an assumption. The public authorities took it on themselves to ensure that the disease would not spread, and the methods they chose took little account of the prevalent animal husbandry practices. Yet this seems a rare example of regulatory over-reach by public authorities. The other cases discussed in section 2 seem more representative, with public regulation delegating extensive self-regulatory responsibilities to business. The difference may perhaps be attributable to the power of large corporations to project convincing mastery over the management of the technologies, such as deep-sea drilling or diesel emissions controls. In such contexts, it seems that it takes a major disaster to foster a culture of compliance. Other examples are nuclear safety following Three Mile Island (Rees, 1994), and the chemicals industry following Bhopal (Cassels, 1993, King and Lenox, 2000).

Another factor moulding legal forms has been the pressures for business-friendly regulation, formalised through 'meta-regulation' (mentioned in section 2). Bronwen Morgan has analysed how the embedding of such regulatory review mechanisms has resulted in the deployment into the every-day routines of governmental policymaking of narrow economic rationality criteria. She argues that the requirement to justify public action in terms of criteria such as market failure or cost-benefit analysis has meant that 'The discourse of regulatory politics ... was ultimately dominated by technocratic expertise articulated on behalf of highly differentiated sub-groups in society, in ways that sidestepped as far as possible the expression of collective values' (Morgan, 2003: 491).

Yet, despite the continuing pleas from business interests to reduce regulation, it has generally continued to expand. I suggest that this tendency to hyper-regulation can be attributed to the friction and conflicts generated by the unsuitability of the basic legal forms which structure business and economic activity. Although these activities are increasingly organised on a wide social scale, their legal organisational forms remain essentially private. The starkest example is the sphere of finance, in which managers and traders have been given free rein to speculate with vast pools of social savings, protected by corporate limited liability, and backed by the guarantee of lender-of-last resort support from the state. Correction of these perverse incentives would render irrelevant large swathes of financial market regulations. Similarly, I have traced elsewhere (also in this journal) how much of the complexity of regulating international corporate taxation has resulted from basing it on the legal fiction of separate corporate personality. This has encouraged large transnational corporations to avoid tax by creating complex corporate group structures that exploit the indeterminacy of abstract

concepts of income and residence. The anti-avoidance rules developed in response have become ever more elaborate, although formulated and applied by a closed community of tax specialists (Picciotto, 2015).

In this sense, I suggest that regulation has become the tribute that corporate capitalism has been obliged to pay for continuing to maintain the private forms which allow its domination by a tiny elite, creaming off enormous wealth. This places a significant responsibility on theorists as well as practitioners of regulation. The field is defined by reliance on technical expertise and independence from politics, in the narrow sense. Yet, as seen in section 3 above, social, economic and even moral issues are present even in the intricacies of the technical and scientific debates on which regulation is based. The best of the critical academic work on regulation, some of which has been discussed here, has brought out some of these important issues. However, such critical perspectives have made less impact on regulatory policies and practices. This is perhaps attributable to the pressures towards creation of an epistemological consensus based on orthodoxy in the professional fields involved. The result tends to be that researchers with a critical perspective prefer to keep their distance from practice and retreat into academicism, while those contributing to policy and practice lose their critical edge in the seductions of attracting research grants and publishing refereed papers. This creates a dilemma for researchers, but one which is unavoidable, since even academic research into regulation contributes to its formation as a field of expertise, also impacting on practice.¹⁰

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¹ It began as *Lettre de la Régulation* in 1990; for an outline of the approach see Boyer, 1990.

² An interesting attempt to integrate the Anglo-American and French approaches was Pearce and Snider, 1995.

³ The untimely death of this incisive young scholar was a great loss to critical socio-legal studies of law and regulation in economic development.

⁴ These traditions of public economic law, as well as the prevalence of ordoliberalism in Germany and étatism in France, perhaps explain why regulation did not emerge there as a distinct field in the same way as in the Anglosphere.

⁵ Work in this journal along these lines includes Gill, 2002; Chunn & Gavigan, 2004; Lippert, 2009; Bradley and Szablewska, 2016.

⁶ In the US, since 1975, institutional investors have been required to invest in assets given a high grade by a recognised rating agency, of which there have mostly been only three (White, 2009: 392). The Basel II Capital Standards Framework gave responsibility to national regulators for recognition of 'external credit assessment institutions', and its capital requirements were dependent on the ratings given by these firms.

⁷ Between 2009-2015 financial firms paid some EUR 200b in fines and penalties for various offences (ESRB, 2015: 12); although a few individuals have been prosecuted, most have been shielded by their firms (Drucker, 2015), except for those accused of betraying confidentiality such as Bradley Birkenfeld and Rudolf Elmer. A report by the European Systemic Risk Board pointed out that while misconduct at banks imposes social costs, 'it may damage confidence in the financial system, which ... is a vital element for the proper functioning of the system'. Hence, although 'it should be prevented by all means and firmly condemned' and 'financial and other penalties applied in misconduct cases rightly serve as a correcting mechanism' 'they may themselves entail systemic risks that could impose costs on users of the financial system' (ESRB, 2015: 3). Hence, it recommended that misconduct risk should be built into the stress tests which evaluate whether banks are adequately capitalised, thus enabling them to bear the costs of such misconduct.

⁸ This concept, extending the notion of regulatory capture, has been applied by financial economist Willem Buiter to explain the regulatory decisions of the US Federal Reserve: 'the Fed listens to Wall Street, and believes what it hears' (Buiter, 2008: 104). It has also been aptly applied to the regulatory framework for taxation of transnational corporations based on the dysfunctional 'arm's length' principle (Langbein, 2010).

⁹ For example, the US in 1995 complained under World Trade Organisation non-discrimination rules against Korea's consumer protection regulations, which laid down specified shelf-lives for food products. Even though they applied equally to all manufacturers, from the US perspective they acted as a barrier to market access, preventing foreign suppliers from using superior preservation technology; following consultations, Korea agreed to change its regulations to allow manufacturer-determined shelf lives.

¹⁰ I have explored elsewhere my personal attempts to manage this dilemma (Picciotto, 2016).