

Booth, Philip

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Regulation without the state: The example of financial services

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IEA Discussion Paper No. 97

REGULATION WITHOUT THE STATE

The example of financial services

Philip Booth
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This paper is a version of a chapter in the book, *Has Financial Regulation Gone Too Far? The Recapitalisation Dilemma*, edited by Philip Booth, Forrest Capie and Juan Castaneda. It is due to be published in 2020 by Edward Elgar.

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About the author

Philip Booth

Philip Booth is Professor of Finance, Public Policy and Ethics, and Dean of the Faculty of Education, Humanities and Social Sciences at St. Mary's University, Twickenham. He is also Senior Academic Fellow at the Institute of Economic Affairs where, from 2002-2016, he was Academic and Research Director. Previously, Philip has worked for the Bank of England and as Associate Dean of Cass Business School where he was also Professor of Real Estate Finance and Investment. He has written widely on investment, finance, tax, regulation, social insurance and pensions, as well as on the relationship between Catholic social teaching and economics. Philip is a Fellow of the Royal Statistical Society, a Fellow of the Institute of Actuaries and an honorary member of the Society of Actuaries of Poland.

Summary

- There are frequent calls for financial markets to be more actively regulated. In nearly all cases it is assumed that regulation must come from state agencies such as the Financial Conduct Authority or the Prudential Regulation Authority.
- This analysis arises from neo-classical, market-failure approaches to economics which suggest that the market does not maximise welfare if certain (unachievable) conditions do not hold and that action by government is then necessary to move the market towards the welfare-maximising position.
- Just as the assumptions do not hold for welfare maximisation in an entirely unregulated market, we cannot know whether government regulatory action will move us away from or towards the welfare-maximising position unless we also make unrealistic assumptions about behaviour in regulatory agencies, amongst politicians and amongst the electorate as a whole. The neo-classical, market-failure approach therefore takes us down an intellectual rabbit hole.
- There is a long history of regulation being provided within markets. Indeed, so-called big bang and deregulation involved the prohibition by government of private regulators of securities markets (the London Stock Exchange) on the ground that regulation was anti-competitive. Independent professions, such as the accountancy profession, also developed in the nineteenth century as a result of market demand. They regulated behaviour, but without intervention by the state until the 1930s in the case of the US.

- It is possible to think of regulation as being part of the set of services that can be provided by the market rather than something that has to be done to the market ex-post. The discovery of regulatory organisations is part of the entrepreneurial market process. This does not only happen in areas such as finance. There is a long history of private regulatory bodies in a range of areas within the economy – perhaps most notably in sport, but more recently in areas such as taxi provision.
- Regulatory institutions evolving within the market are not simply nineteenth century (or earlier) historical curiosities. They continue to evolve, despite the attempts by government agencies to regulate markets in very detailed ways. Modern examples would include the International Swaps and Derivatives Association (ISDA) whose record during the financial crisis was faultless.
- There are disadvantages arising from private regulatory bodies and also situations where they may work less well. For example, they can encourage cartelistic behaviour. In addition, they may not be as effective where the economic activity that is being regulated gives rise to widespread social costs beyond market participants. Furthermore, private regulatory bodies may lack the means of enforcing their regulations. In relation to the first point, it should be noted that government regulators are monopolistic by design and it is normally illegal for people to practise in the relevant market unless they are approved by the regulator. In relation to the third point, restrictions on means of enforcement are generally imposed by government in the first place.
- We should reject market failure analysis and operate under the assumption that the market can provide regulatory services because they are valued by market participants. Where statutory regulation is used, it should generally be voluntary with products not regulated by the statutory regulator being clearly identified as such. Furthermore, the Competition and Markets Authority should conduct regular investigations into whether regulatory services provided by the state inhibit competition. To take one topical example, outside financial markets, Transport for London should not be able to establish a regulatory monopoly by being allowed to regulate or, still less, being allowed to prohibit Uber. TfL and Uber should be seen as alternative, competing regulatory bodies for ride services

Introduction

In economic analysis, the case for regulation is normally situated within a 'market failure' framework. According to this approach, if some of the conditions that are regarded as necessary for markets to maximise welfare do not hold, regulatory interventions can increase welfare.

The specific justifications for regulating financial markets within this framework were discussed by Llewellyn (1999) in the first Occasional Paper published by the Financial Services Authority (FSA). These justifications included information asymmetries between buyers and sellers; the importance of market confidence which has externality effects; consumer demand for regulation to lower transactions costs; and the need to address externalities caused by the systemic effects of the failure of a particular financial firm.

Those who make the case for statutory regulation pose a false dichotomy. The alternative to markets that are not regulated by the state is not the absence of regulation, but regulation by non-state bodies. And the relevant comparison to make is between the efficacy of state regulation and that of regulation by other bodies.

Indeed, regulation can be thought of as part of the set of services that markets can deliver and regulatory institutions can be regarded as the product of the market process, competition and entrepreneurship. Regulation is not something that should be done to the market after the fact by a supposedly disinterested body. This way of thinking is the appropriate interpretation of a wide range of work from researchers such

as Stringham (2015) and is in the tradition of work by Peter Boettke and Elinor Ostrom.¹

The sections that follow examine the growth of state regulation and historical and modern examples of private alternatives. The paper then provides a conceptual framework within which we can better understand the efficacy and appropriateness of statutory regulatory interventions. This framework is superior to the 'market failure' framework of neo-classical economics.

¹ Though, rather than suggesting that regulation in financial markets should be part of some kind of polycentric system, as Ostrom studied in the case of common-pool resources, I will argue that, in large part regulation of the financial sector can be undertaken entirely by private bodies.

Government financial regulation in the UK

The advent of statutory regulation of financial markets

It is unusual to question the role of and supposed need for government financial regulation in modern economies. However, until recently, there was very little regulation of financial markets by the state in the UK. Until 1988, the sale of financial products was regulated by consumer protection law and by general contract law. Before the so-called 'Big Bang' in 1986, securities markets were generally regulated by private stock exchanges except for occasional primary legislation and Companies Acts which imposed very specific and limited requirements on those trading in securities as well as on publicly listed companies. The extension of statutory regulation to the mortgage market is more recent still. The sale of mortgages continued to be regulated only by consumer protection law until 2004. The same was true of general insurance until 2005. Furthermore, until recent times, the UK insurance industry was regulated by a regime known as 'freedom with publicity' – essentially the approach was: 'do what you like as long as you say you are doing it'. It is difficult to date precisely the demise of this system for regulating insurance markets, but it remained largely intact until the early 1980s at least.² Pension funds were also largely unregulated by the state until the Pensions Act 1995. This Act was passed as a reaction to fraud and theft in one particular scheme,³ something which, of course, has always been illegal and the policing of which is the purpose of primary law.

The Financial Services Act 1986, which came into force in 1988, and also the 'Big Bang' in October 1986, were revolutionary acts in the development of financial regulation in the UK. The Big Bang effectively clipped the wings

2 See Booth (2007).

3 The pension schemes in companies controlled by Robert Maxwell.

of private regulatory institutions that had existed up to that point for around 300 years. The Financial Services Act then instituted a system of regulation of financial markets that was ultimately accountable to the state and which was all-encompassing within the sectors to which it applied.

No person operating in financial or investment markets outside real estate could escape the remit of the regulatory bodies created after the Financial Services Act. Chapter II of the Act stated: 'no person shall carry on, or purport to carry on, investment business in the United Kingdom unless he is an authorised person under Chapter III or an exempted person under Chapter IV'.⁴ The following clause in the Act set out a maximum two-year prison sentence for those contravening the requirement for authorisation. This essentially was the advent of total state control over who could conduct investment business and how it could be conducted. Under the Act, even hitherto independent professions had to be authorised so that their members could carry on limited business under the supervision of their professional bodies. The various regulatory bodies, which ultimately reported to the Securities and Investment Board, which was in turn accountable to the Treasury, controlled all aspects of financial regulation covering securities markets dealing, investment products, investment management, life insurance and pensions products, and the provision of investment advice.

Occupational pension funds, the prudential regulation of insurance companies and banks, the provision of credit and bank loans (including mortgages) and non-life insurance were excluded from this regulatory system in 1986. However, all have since been included in the statutory regulatory regime under one guise or another.

4 See: http://www.legislation.gov.uk/ukpga/1986/60/pdfs/ukpga_19860060_en.pdf

The continuing development of government regulation

Since 1986, the system of state regulation has evolved further. From the complex series of self-regulatory bodies ultimately accountable to the Treasury, the single regulator, the Financial Services Authority was established in an arrangement formalised in the Financial Services and Markets Act 2000. Following the financial crisis and the election of the coalition government in 2010, the Financial Services Authority had its responsibilities split between the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA) in 2013. The former organisation is part of the Bank of England.

The approach of government financial regulators is sometimes described as 'principles based'.⁵ However, it is difficult to argue that such a description applies today. Insofar as it has ever applied, so-called 'principles-based' regulation created policy uncertainty by allowing for the retrospective interpretation of rules that were unclear or not obviously intended to prohibit activities that subsequently came under the microscope. There is certainly no shortage of detail when it comes to financial regulation. And the principles of caveat emptor and freedom of contract are not obviously present. In 2011, the UK financial regulator brought in regulation or issued guidance, advice, discussion documents or consultations, totalling 4.3 million words – more than five times the length of the Bible. This included a 585-page consultation on the regulation of the mortgage market, which led to a 312-page document on regulations relating to the sale of mortgages. Not only were defaults on UK mortgages not implicated in the financial crash, mortgage defaults have never been responsible for a serious bank failure in the UK. As noted above, the statutory regulation of mortgages is a very recent development in the UK.

Today, the FCA has the ability to determine its own burden of proof, levy fines, and prevent people from working in any area of financial markets. It has wide-ranging enforcement powers equivalent to those adjudicated in civil and criminal courts with none of the accountability or guarantee of due process that exist in proper courts. In 2015, the FCA levied nearly £1 billion of fines. The statutory financial regulators, of which the FCA is just one, control every aspect of financial market conduct. There is no

5 For example, in FSA (2007) it is stated in the first sentence: 'Principles-based regulation will sustain the current rigorous regulatory environment for UK financial services, but with better and more effective outcomes'. To be fair, the FSA was arguing in the document that it had not reached that point yet and then the crash intervened.

competition between regulators which is a serious problem as we shall see below.

The PRA, the other successor body of the FSA, has documents explaining its philosophy in relation to regulation. Some indication of the complexity created by the move from governing principles of law combined with private regulatory bodies is given by the fact that a single document explaining the PRA's philosophy in relation to insurance regulation is ten times as long as the 1870 Insurance Companies Act which governed life insurance markets for 100 years.

The growth of statutory regulation has been highlighted by Haldane (2012).⁶ Haldane is not a supporter of deregulated financial markets in general.⁷ However, he points out that the Basel rules for determining bank capital have grown from 30 to over 600 pages. He then notes, amongst a range of other data about the growth of regulatory detail: 'In 1980, there was one UK regulator for roughly every 11,000 people employed in the UK financial sector. By 2011, there was one regulator for every 300 people employed in finance'. He did not point out that, if this trend growth in regulators and people employed in finance were to continue, the number of regulators would overtake the number of people employed in finance by about 2070 – and this excludes those who enforce regulation employed by regulated firms themselves (such as compliance officers).

This narrative and associated examples illustrate an important difference between statutory regulation and basic contract and supporting law. Contract law exists to ensure that those things agreed by the relevant parties are enforced. Such law widens the scope of economic transactions because participants in markets can have confidence in the agreements they make. This is not an intrinsically complicated function. Regulation, on the other hand, seeks to control participants in the market to achieve some kind of economic or social outcome. There is, in principle, no limit to the amount of regulation that this requires, nor to the detail that might be thought necessary, especially if the range of potential parties to the transaction is widened through international trade. The process of using regulation to achieve a particular economic or social outcome is akin to that by which a central planning authority might decide the quantities and types of various goods and services that should be produced.

6 Haldane (2012), *The dog and the Frisbee*, speech to Jackson Hole Economic Policy Symposium <https://www.bis.org/review/r120905a.pdf>

7 Though he did cite Hayek approvingly in the paper.

Of course, there has always been some statutory financial regulation. However, the focus has changed. Regulation or legislation that prohibits certain activities can be brief and not very complex. For example, insider trading was prohibited in the 1980 Companies Act, with the required part of the Act taking fewer than nine pages.⁸ Today, insider dealing is regarded by the regulator as one of many forms of market abuse: the FCA market abuse regime is now defined in over 60 documents.⁹ To take another example, regulation that requires insurance companies to make public their assets and liabilities and the bases upon which they are calculated is not intrinsically complex. However, regulation that lays down approaches for the calculation of the capital that insurance companies should hold in order to have a 99.5 per cent chance of remaining solvent over a given period and which is sufficiently general to be applied to all companies is necessarily extremely complicated.

Although regulation of financial markets by the state is a recent phenomenon in the UK, this does not mean that markets were unregulated historically. Economists and politicians often discuss whether there should be regulation, but rarely discuss who should regulate.

8 See Companies Act, 1980, pages 80-88. http://www.legislation.gov.uk/ukpga/1980/22/pdfs/ukpga_19800022_en.pdf

9 See: <https://www.handbook.fca.org.uk/handbook>

Historical examples of regulation arising from markets¹⁰

Regulatory institutions developed historically within financial markets to deal with known (though not always defined) problems. Institutions that were important in creating a stable and well-regulated order in financial markets included independent professions; intermediaries; trustee bodies; and firms with special corporate governance arrangements (such as customer-owned firms). In addition the use of 'brands' or 'reputation' helped counterparties and customers to distinguish between good and bad firms.¹¹ This was genuinely a process of entrepreneurial discovery as, within markets themselves, institutions evolved and there was competition to discover the best way to produce order and promote economic welfare within financial markets.

However, institutions also developed that specifically exist to regulate market activity. Such institutions were not the creation of the state and nor was it compulsory that those participating in markets should be members of such institutions. They also developed as part of an entrepreneurial process that sees private governance and private rule-making as part and parcel of a set of services that have to be provided to bring order to markets. They arose, it can be assumed, because they raised the welfare of market participants in some way. Examples are discussed below.

10 It should be noted that non-state regulatory institutions are not unique to finance. They were pervasive in British society from the 1850s until World War II. For example, regulatory institutions developed in every branch of sport. The Royal and Ancient started to codify the rules of golf in 1897. The Football Association started to codify the rules of soccer in 1863, but then regulatory competition developed between the Rugby Football Union in 1871 and the Rugby League in 1895.

11 See Macey (2013).

Exchanges

Historically, the most important regulatory institutions in financial markets have been exchanges. These are institutions on which securities and other financial interests or commodities are traded and which generally provide a comprehensive regulatory framework that promotes order. In the past, these institutions operated on a club-like basis. They developed rules to which their members had to adhere. Adherence to the rules came with a cost because the rules involved the prohibition of certain practices that may have been remunerative to individual members of the club. However, the rules also had a benefit because, if they were obeyed by all members of the club, they would enhance the reputation of the exchange as a whole. In other words, market confidence and trustworthiness can be thought of as a club good¹² or service, the benefits from which are excludable but not reducible in consumption, and the price of obtaining that good comprises both membership fees and adherence to the rules. It is important that free riders cannot operate under the protection of the private regulatory body without obeying the rules: that is, it must be possible to exclude rule-breakers.

The development of exchanges is discussed in a number of texts describing the development of the City of London, as well as texts on private governance in general.¹³ In Britain, modern stock exchanges first developed in coffee shops, such as Jonathan's coffee house in Change Alley. A group of 150 brokers and jobbers formed a club there in 1761 superseding more informal arrangements that had existed since 1698. This club developed into the first formally (though privately) regulated exchange in 1801 and, the following year, the exchange moved to Capel Court. The characteristics of the stock exchange included restrictions on membership, the publication of prices and lists of stocks that were traded, and the potential for the development of a rule book.

In the early years, the exchange was regulated by convention, reputation and informal rules. For example, when delayed settlement was introduced to increase liquidity, those who did not settle their accounts would be labelled 'lame duck' on a board so everybody would know. In many of the historical exchanges, such as Amsterdam, contracts were enforced that were not even recognised in law.

12 The analogy with Buchanan's idea of a club good (see Buchanan, 1965) is not exact and would need more explanation than there is space to provide here.

13 See, for example, Kynaston (2011); Stringham (2015); and Arthur and Booth (2010) and the references contained therein.

Codification of rules happened in two ways. Firstly, there were rules governing the behaviour of members and the quotation of stock prices. Secondly, there were rules for companies listed on the exchange. The latter type of regulation developed rather later. These are precisely the forms of financial market regulation that it is commonly thought necessary for the state to provide and which the state now does provide.

The first codified rule book covering topics such as default and settlement was developed by the London exchange in 1812. This rule book included provisions for settlement, arbitration and dealing with bad debts. There were also rules about general behaviour designed to increase transparency (for example, partnerships amongst members had to be listed publicly) and about the quotation of prices. One interesting example of the enforcement of rules was when the exchange absorbed collectively losses from an event of market manipulation and the inappropriate use of insider information in 1814 whilst ensuring that those who attempted to profit did not gain.¹⁴ These are now matters that are entirely handled by government regulation.

Rule books governing the behaviour of members were followed by rules for the quotation of companies' securities. In the mid-nineteenth century, it became a requirement for securities to be sanctioned by the stock exchange committee before being listed on the exchange. At the turn of the 20th century, these rules became more onerous. Also, just after the turn of the 20th century, the exchange strengthened the requirement for the separation of jobbing and broking functions which became an important focus of attention at the time of Big Bang in 1986.¹⁵ There is no question that the exchange was an effective regulating and rule-making body. A Royal Commission enquiry in 1877-78 commented that the exchange's rules were 'capable of affording relief and exercising restraint far more prompt and often satisfactory than any within the reach of the courts of law'.

In 1986, the stock exchange system of private rule-making was broken open. The separation of broking and dealing functions was ended as was the charging of fixed commissions. This was the process known as 'Big Bang'. Big Bang is often thought of as a process of deregulation. However, it would be more accurately described as a process whereby certain types of private regulation were prohibited and replaced by regulatory bodies accountable ultimately to the state. The sweeping away of the various

14 See: Davis, Neal, and White (2004).

15 See *The Times*, 1 February 1909, reproduced in Burns (1909).

restrictive practices (limitations on entry to the market, fixed commissions and the separation of trading and broking) followed an agreement with the government that led to the suspension of a six-year-long enquiry by the Office of Fair Trading which had previously had its powers extended to include service industries.

It is not only securities markets that developed their own regulatory codes by which members had to abide. The Baltic Exchange provides another example. This was also established in a coffee house, in 1744. In 1823, to combat 'wild gambling', a committee was established to regulate admission and to develop trading rules. These rules evolved over time. The Baltic Code was developed in 1983 and revised in 2012. The motto of the exchange is 'my word my bond' and contracts were generally executed on trust without immediate exchange of signatures. The Baltic Code both requires and prohibits certain behaviours.¹⁶ Members who flout the code can be expelled or suspended and approaches to mediation and dispute resolution are set out within the code.

Professional bodies

Another example of private regulatory institutions is the development of professional bodies.

Professional bodies tend to have a bad name amongst supporters of a free economy. They are often thought to promote restrictive practices and to seek monopolies. Such views have been reinforced by the work of authors such as Friedman.¹⁷ However, it is clear that Friedman regards the problem of professions as arising from restrictions on entry to the profession combined with a government preventing non-members of a professional body from practising unless they are members of the profession. Of course, such government intervention might well arise from lobbying by a well-organised professional body.

There is no reason in principle why a profession cannot control entry to ensure integrity and competence amongst a defined group of practitioners whilst non-professionals are also allowed to practice, albeit without the 'badge of approval' from the profession. In other words where the state

16 See: https://www.balticexchange.com/dyn/_assets/_pdfs/documentation/baltic_code_nov14.pdf

17 See, for example, Friedman (1962).

does not control entry, professions in financial services can be thought of as part of the 'spontaneous product of the market, which has evolved to meet the special problems [of] the financial services industry' (Booth 1997). Professional bodies in finance evolved in the UK, but in other cultures they did not. One good example of this is the actuarial profession. Though it is small, from the 1850s onwards, it has been pre-eminent in providing stewardship of insurance and pension funds as well as pricing products and determining distributions of profits between different categories of policyholders in insurance funds.

With regard to the actuarial profession in the UK, though actuaries in the 19th century were split on the question of whether there should be a legal definition of an 'actuary' and whether there should be certain protected roles, there was no desire to protect the profession from competition. Indeed, until the 1980s, there was no significant state interference in or licensing of the profession at all. Contemporary reflections suggest that the absence of state regulation helped the profession to thrive and that such private systems of regulation were, in fact, more effective. For example, Nicoll (1898: 169-170) writes:

From what has preceded, it would seem as if there had not been much in the way of aid or protection accorded by the State to the actuarial profession in the performance of its duties. Our Free Trade Government has, however, been rightly - as it seems to us - very chary at all times of seeming to favour any particular society, or set of individuals, more especially if that favouring was at all likely to be at the expense of other members of the community. It is really very doubtful whether the policy of non-interference is not, in most circumstances, the best for a Government to pursue; and, as regards the Institute of Actuaries, it is very questionable if it would have been so vigorous, or so surely founded as it is at the present day if it had depended, at its inception, on assistance or support in any form from the State.

Comparisons are then made by Nicoll with the US market which was much more highly regulated by the state and in which such independent professions did not flourish, at least in this period.

Various theories of professions are discussed in Bellis (2000). They can be thought of as sociological constructs along the lines of fraternal societies with a common interest or, as noted above, as players in a political process

who try to seek monopoly rents by restricting access to a particular occupation. However, especially in financial services, they can be thought of as a group of people who have certain characteristics such as certified knowledge, a requirement to continually develop their knowledge and a requirement to uphold a professional code in markets that are often thought to be opaque or subject to information asymmetries. Professionals are also valued for their judgement in situations in which decisions cannot be made on the basis of objective evidence. And such judgement should be provided from an unbiased standpoint because professionals owe an allegiance to their profession and its codes of conduct as well as to clients or the company for which they are working.

The use of professionals by companies selling financial services or by intermediaries of various types could then act as a simple signal to potential customers or other market participants in complex markets. By way of example, Bellis (2000: 323) notes that the AMP Society, a mutual life office in Australia established in 1848, set out rules that required the certification of the value of its liabilities and of distributions to different classes of members by an actuary or accountant: this was regarded as necessary to signal that the job was done properly.

The accountancy profession is another example of a professional body which was important in financial markets. This is more sizeable than the actuarial profession. It also evolved in its modern form in the mid-nineteenth century. Its roles included certifying the books of public companies and of auditing. The key requirements were for independence, judgement and expertise. Allegiance to a professional body which had the power to control entry could help ensure these. The accountancy profession was important in both the UK and the US. In the US, the profession was not controlled by the state until the 1930s. Reporting and disclosure requirements for companies in the US came from the exchanges, not from the government. In fact, publicly quoted firms in the US did not have to be audited, though many were. By 1926, 90 per cent of companies quoted on the New York Stock Exchange had audited accounts and professional bodies of accountants with their own rules were responsible for auditing in many cases (see Zeff 2003). The American Institute of Certified Public Accountants had codes of conduct for its members¹⁸ as would be expected by a professional body. However, it was carrying out roles that were not licensed and not regulated by the state, but they were, nevertheless, regulated.

18 Indeed, A. C. Ernst resigned from the Institute because of the rule book and never re-joined. His firm was later to become Ernst and Young (Zeff 2003: 191).

In recent years, professions and their activities have been increasingly regulated by government bodies. This has gone hand-in-hand with a change in the nature of how professions operate, hugely increasing formal codification. The International Financial Reporting Standards dictating accounting requirements within the EU are now over 3,000 pages in length. Until 1990, accounting standards formed *recommendations* to members of the profession. The first such recommendation, SSAP 1, published in 1971, was just eight pages long.

Other evolved institutions designed to protect consumers and counterparties

There are many other examples of sophisticated market institutions that have evolved to deal with perceived ‘imperfections’ in markets. These include credit rating agencies¹⁹ and intermediaries involved in the sale of financial products. The respect for financial intermediaries has, of course, been undermined by the mis-selling scandals, though these have happened since statutory regulation of the sale of financial services products has been introduced. The most serious of these mis-selling scandals, insofar as it involved financial intermediaries, was possibly the pensions mis-selling crisis of the mid-to-late 1980s. This was the direct result of the UK government prohibiting by law, and changing retrospectively, paternalistic arrangements developed by employers which required their employees to join company pension schemes. Such paternalistic arrangements were themselves market regulatory mechanisms which the government undermined through statutory regulation. The result was the mis-selling crisis which provided an apparent justification for more government regulation of sales processes for financial products.²⁰

19 Credit rating agencies acquired a bad reputation in the financial crisis. However, for a full discussion of how regulators distorted their behaviour, see Morrison (2009).

20 It is worth explaining the genesis of the crisis in greater detail. The 1986 Social Security Act prevented employees and employers agreeing contracts of employment which required membership of a company pension scheme as a condition of employment. Most of these schemes were especially good value for members. Pension company salesforces tried to entice such people to leave their company schemes and take out a personal pension scheme (which were generally much less good value and higher risk). Such pensions policies were regarded as being ‘mis-sold’ – or not appropriate for the client. The Act actually involved retrospection so that previously agreed contracts of employment which required pension scheme membership were over-ridden by law.

The insurance market developed mechanisms to regulate product sales through the intermediary market directly. One such market institution was a maximum commission agreement amongst life insurance companies. This was an agreement between life insurance companies that limited the amount of commission that could be charged by intermediaries (such as insurance brokers) when selling the companies' products. This helped to ensure that intermediaries made recommendations based on the soundness of the life insurance company the policies of which they were recommending, or on the basis of other characteristics valued by the purchaser, rather than on the basis of the amount of commission they would receive. This agreement was abolished by the competition authorities under pressure from the EU.²¹ Since then there have been numerous mis-selling scandals related to the sale of insurance products motivated by the amount of commission brokers received rather than by the needs of the customer.

We should not be surprised at the proliferation of institutions in markets designed to regulate behaviour. Market regulatory mechanisms can lead to a race to the top, rather than the feared race to the bottom and the elimination of the high-quality segments of the market that is predicted by the literature on information asymmetries (for example, Akerlof 1970). In the market for second-hand cars, warranties have developed to help protect consumers from bad cars and to allow car salesmen to signal that they are selling good cars. In different ways, financial institutions can develop mechanisms that reduce the potential for conflicts of interest or other problems that can be inherent within financial markets and will be rewarded for doing so. Lightfoot points out that the historical evidence suggests that, before the regulation of financial markets in the US by the Securities and Exchange Commission, banks had higher capital-to-asset ratios than afterwards (see Lightfoot 2003; Capie and Wood 2013). In addition, in the 1920s, so-called universal banks, which conducted both investment banking and commercial banking, were effectively penalised by those entering into contracts with them. This meant that securities underwritten by such banks had to offer higher yields, reflecting the possibility of greater conflicts of interest than would exist where there were separately capitalised investment banks with their own balance sheets and separate boards of directors. In both banking and insurance markets mutual companies developed which reduced conflicts of interest between owners and customers. In banking, the trustees savings banks offered

21 See: 'Regulation of life assurance commissions II', <http://www.theactuary.com/archive/old-articles/part-2/regulation-of-life-assurance-commissions-ii/>

100 per cent reserve accounts in the era before deposit insurance and bank capital regulation.

These were not regulatory institutions as such. However, they are mechanisms that signal to those who interact with financial institutions and that allow counterparties to make a judgement about the incentives that exist within those institutions for the kind of practices that might damage consumers and be difficult for them to perceive. These signalling and governance mechanisms have now been replaced by government regulation of behaviour.

Modern alternatives to government regulation

As has been discussed, the club-like institutions described above are no longer the main regulators of activity in financial markets. As far as the main market of the London Stock Exchange is concerned, it is true that there are still special requirements in relation to listing and trading determined by the exchange. However, listing, trading and disclosure rules are so bound up with government regulation and EU directives that the regulatory role of the exchange is now residual.

Nevertheless, there are examples of private regulators that are still important in their own domain. For example, there are some exemptions from EU regulations relating to the trading and listing of securities. The Alternative Investment Market (AIM) has developed to take advantage of those exceptions. Shares are traded on that market, subject to the regulations set by AIM. Statutory regulation still applies in cases of market abuse but, otherwise, the market develops its rulebook independently of government.

AIM requires that companies must produce half-yearly reports and annual audited accounts. Where a company is located outside a jurisdiction that applies specific accounting standards, AIM still requires accounts to be produced according to recognised standards, but allows some discretion. There are also AIM regulations in relation to dealing in shares by directors and similar categories of employees, together with other rules dealing with disclosure, conduct and trading.²² The total market capitalisation of all the companies that trade on AIM is over £100 billion. There are 14

22 The rule book can be found here: <http://www.londonstockexchange.com/companies-and-advisors/aim/advisers/aim-notice/aimrulesforcompaniesjan16.pdf>

companies the shares of which are traded on the exchange which have a market capitalisation of over £1 billion.

Derivatives exchanges also develop their own regulatory environment. Even off-exchange dealing is regulated by a private regulatory body, the International Swaps and Derivatives Association (ISDA). ISDA's mission is: '[to foster] safe and efficient derivatives markets to facilitate effective risk management for all users of derivative products'. It achieves this by 'Developing standardized documentation globally to promote legal certainty and maximum risk reduction'.²³ Members have to apply to join ISDA and can have their membership revoked.

Members can choose to use the ISDA master agreement. This was used for 90 per cent of outstanding derivatives contracts at the end of 2016 of almost \$0.5 quadrillion.²⁴ In addition, as part of its regulatory function, ISDA also has a dispute resolution procedure (thus circumventing the need to use government courts in most instances) and a Credit Derivatives Determinations Committee. The latter uses a set of rules to determine whether a credit default event has taken place and thus whether counterparties to a derivative contract need to settle.

Of course, private regulators exist in many areas of the economy outside finance. The example of sport has already been mentioned. Private regulators are becoming increasingly common in markets where new technology leads to the provision of services in new ways that transcend those existing modes of provision that are regulated by the state. Perhaps the most topical private regulator is Uber. Uber is a platform. It regulates the drivers that use the platform and also has methods of regulating the behaviour of its customers. It is a dominant market player as a regulator in its own specific domain. However, it competes with government-regulated taxis, such as the black cabs regulated by Transport for London (TfL). Uber facilitates competition between drivers and breaks down information asymmetries within the market for private hire vehicles by promoting more effective regulation by reputation via the mutual rating of customers and drivers.

There are differences in approach between Uber and black cabs regulated by TfL. Uber uses a pricing system that ensures continuity of supply, but not a fixed price. On the other hand, various requirements are imposed

23 See: <http://www2.isda.org/about-isda/mission-statement/>

24 See Bank for International Settlements statistics at: http://www.bis.org/publ/otc_hy1705.htm

on licensed black cabs (flat fares, knowledge requirements to obtain a licence) which benefit different types of customer. Customers can choose between the regulatory framework offered by black cabs and that offered by Uber or other platform operators. There is competition between regulatory frameworks and we should not assume that one framework is better for all consumers.

Government regulation as the supposed solution to market failure

The general presumption is that state regulation is necessary to deal with what economists often describe as ‘market failure’. This conclusion is often derived from the neo-classical approach to economic reasoning in which it is thought that particular conditions have to hold to maximise welfare.²⁵ Given that these conditions never can hold, it is generally assumed that an unregulated market fails to maximise welfare and that intervention by governments is necessary and desirable. As such, it is proposed that governments and government regulatory bureaus levy taxes or apply regulations to attempt to move the market towards its welfare maximising position.

This is the rationale for regulation that has been put forward by government financial regulators. For example, in one publication by the UK financial regulator, the Financial Services Authority (FSA), in 2003, it was stated (FSA 2003):

In meeting our objectives in a manner consistent with the principles of good regulation, we have adopted a regulatory approach based on correcting market failure... There are, however, numerous cases where unregulated financial markets will not achieve the best outcome due to some form of market failure, making action on our part necessary.

25 For example, perfect information, the absence of externalities and so on.

Perhaps, the most interesting part of this statement is the last clause. The FSA notes that they deem action on '*our*' part '*necessary*'. In other words, *state* regulation is a *necessary* remedy for market failure. The possibility of other regulatory bodies arising or intervention by the state regulator actually making things worse is not considered.

This is essentially a blackboard economics view of financial regulation, as the late Ronald Coase would have called it: the reasons for and proposed forms of intervention are derived using abstract theory.

In more recent years, the publicly stated justifications for the statutory regulation of financial services have become more subtle. The FCA, one of the successor bodies to the FSA, now explains its purposes in a 61-page document. This documents notes: 'In assessing whether intervention is needed, we consider a range of market failures including...' (FCA 2015). It then goes on to say that one such market failure is 'existing regulation, which might have adverse effects on competition' (ibid.).²⁶ It is slightly bizarre that it should regard regulatory barriers to entry as a *market* failure. Nevertheless, it appears that 'market failures' are just one of a range of considerations that determine regulatory interventions.

The image of the 'market failure' model is one of the government regulator as a puller of levers designed to move the market towards its welfare-maximising position. There are two problems with this analysis. The first is that we have much prior theory and evidence to suggest that government regulators cannot perfect an imperfect market and may not even improve upon its outcome. Secondly, it fails to consider the development of regulation within the market itself as is discussed above.

Problems of government regulation

The obvious critiques of government regulation would originate from the Austrian and public choice literatures. Firstly, in the same way that a central planner cannot know in advance how to produce and what to produce in order to maximise consumer welfare, we cannot know in advance what is the welfare maximising form of regulation. Will regulation be too burdensome and costly? Or will it not protect the consumer sufficiently or in the right way? Will the costs in terms of reduced competition and innovation outweigh the benefits? There is no effective way of communicating preferences or

26 <https://www.fca.org.uk/publication/corporate/fca-approach-advancing-objectives-2015.pdf>

communicating the balance of costs and benefits of different forms of regulation and incentivising the regulatory bureau to provide the right amount of regulation in the right way. Indeed, some of the costs are unknowable.

In principle at least, private regulators can compete and can benefit from providing better regulation than their competitors. A stock exchange would be able to charge higher fees to companies for listing their shares if the regulatory environment they provided led to a lower cost of capital for the company. For example, a taxi regulation platform which led to drivers being expelled from the system if they received one rating below the maximum number of stars would hugely raise the cost to consumers as drivers would be reluctant to use the platform without significant corresponding benefit. On the other hand, one which did not distinguish at all between consumer perceptions of the quality of drivers would be of no benefit to consumers and the platform would not be used. When there is a market for regulatory services, there are built-in incentives to optimise.

A government regulatory body is not able to accumulate such information on its efficacy and it cannot be assumed that it will improve upon the market outcome. As noted by Hayek (1979: 70), ‘If the factual requirements for “perfect” competition are absent, it is not possible to make firms behave “as if” it existed’. If, for example, there were no information asymmetries in a market, the market outcome would be different from the one which arises when there are information asymmetries, but we do not know how different or in what respect it would be different. And we cannot simply require the provision of information to consumers and assume that the market failure is solved. The information is costly to provide, it needs interpretation and a regulator cannot know what information is relevant to a consumer’s decisions. The regulation itself might add to the difficulties faced by both consumers and firms when acting within markets and bring with it other problems. Indeed, it may add to the complexity of the whole process of buying a financial product thus worsening the problem.²⁷

27 The author examined the information provided with a unit trust product, the provision of much of which is encouraged by the regulator. During the purchase process of a very simple product, the customer was advised to read no fewer than nine documents. One of these was over 1,000 pages long and another about 500 pages long. These two documents had little information that was relevant to the particular fund. No attempt was made to be discriminating. Of course, this is not all required by regulation, but a risk averse provider, in the face of regulation designed to promote information provision will tend to provide more rather than less. In another example, it has been reported that the regulations implemented by the UK Financial Conduct Authority in respect of the EU Market in Financial Instruments Directive (II) run to 1,700,000 paragraphs. These regulations are designed to promote transparency.

Further problems of government regulation relate to its capture by those whose interests it is not supposed to serve. Regulation is intended to serve market participants and perhaps the general public. However, a statutory regulatory body is disciplined by a government formed as a result of quinquennial elections that are fought on a range of issues and which can be very remote from the management of individual regulatory bureaus. In other words, there is a huge principal-agent problem between the agent (the regulatory bureau) and the principal (the market participants and/or general public). Furthermore, regulation can be captured by firms which wish to raise the costs to rivals or it can be designed to fulfil the objectives of regulators or politicians.²⁸

Unfortunately, whilst economic theory can tell us when a market will not give a theoretically perfect outcome, it cannot generally tell us whether the intervention of a state regulator will produce a better one. The market failure approach is simply an intellectual dead end or rabbit hole. The reasoning in the market failure model runs as follows: 'a given set of assumptions is necessary to maximise welfare; these assumptions do not hold; therefore we should pull regulatory levers to improve welfare'. But, once we accept that the government regulator will not be able to maximise welfare either, there is nowhere left for this line of reasoning to go.

Critiques of private regulation

To argue that we cannot know if government regulation will improve upon market outcomes is not to say that there are no problems with private regulation. Indeed, there are a number of potential problems. The first is that it might not deal effectively with external social costs – that is, those costs not borne by the market participants or which are external to the system of parties who subscribe to the regulatory body. For example, if the costs of the failure of a bank have very wide ramifications, it could be argued that government regulation should be considered.²⁹

It could also be argued that private forms of regulation give rise to concentrations of power. Interestingly, there is a discussion around the edges of this issue without it being related to the question of the institutional

28 See the literature on public choice economics.

29 Though, it may be preferable to ensure that we have bankruptcy procedures that are designed to reduce the spillover effects of failure in this particular example, but other examples could be given such as the regulation of carbon emissions that may have very wide ramifications.

advantages and disadvantages of private versus government regulation in Akerlof (1970). In Akerlof's paper, in which he introduced the possibility of 'market failures' caused by information asymmetries, it was noted that private institutions might address the problem. But it was also noted that such institutions would not be atomistic. This is because they have to govern standards across the whole market or a substantial sub-section of the market. Private regulatory institutions are therefore bound to be few in number in a given market. Interestingly, as has been noted above, it was competition concerns that led both to the curbing of the regulatory powers of stock exchanges and to the abolition of the maximum commission agreement amongst insurance companies.

Whilst this is true, government regulators are monopolistic by design. Furthermore, private regulatory systems will generally have competitive elements. They may also be contestable or, in an international context, there may be effective competition. Uber, for example, competes against other forms of regulatory mechanism in the provision of taxi services and also has the threat of entry from other similar platforms. Indeed, it is Transport for London (TfL) that has used its monopoly power as a statutory body to try to constrain regulatory competition between Uber and more tightly regulated black cabs. In the case of securities' markets, it is highly likely that the development of technology, combined with the removal of exchange controls seven years before 'Big Bang', would have led to international competition curbing the restrictive practices of the stock exchange. Indeed, exchanges do compete on an international basis.³⁰ Off-exchange dealing was also possible before Big Bang, whereas after the enactment of the Financial Services Act all those participating in securities markets were regulated by the monopoly regulator

A third problem with private regulation is that there might be problems such as information asymmetries that are so radical that their existence is not understood and so the value of market institutions to resolve them is not recognised by market participants. As a result, private regulatory institutions may not develop. Related to this may be the difficulty consumers have in determining the efficacy of private regulators.³¹

30 Also, there were a number of different exchanges in the UK up to 1973. Furthermore, there was competition between different ways of providing capital to companies.

31 Of course, with private regulators, despite the argument above relating to market power, there can be comparison, discussion and scrutiny.

The final possible problem is that private regulatory institutions might lack powers of enforcement. Such limitations will generally arise from government law. For example, government law might prevent a profession or other organisation from expelling people on the ground that to do so would be regarded as a restraint of trade.³² Or there may be limits on the fines that can be levied on those who submit themselves to private regulation. Clearly, a private regulatory body could not imprison a market participant who broke the rules under most penal codes! The Financial Conduct Authority (FCA) by contrast has almost unlimited powers to invoke civil and criminal penalties. This problem is not, of course, a market failure, but there may not be an obvious way to resolve it in most legal jurisdictions.

32 A particularly good example of this problem is the case between the Test and County Cricket Board (TCCB) and the players who joined Kerry Packer's World Series Cricket (WSC) in 1977. The TCCB, as the regulator of the game, banned players from county and test cricket who joined WSC. The court accepted that the regulation of cricket was good thing, but that the action of the TCCB amounted to a restraint of trade and therefore was not valid. This was the case even though WSC provided an alternative way for players to gain a livelihood – there was regulatory competition.

A realistic approach to the economics of regulation

If market failure analysis leads to a dead end, it is clearly not the right starting point for analysis.

The starting point should be a rejection of the idea that the market develops separately from regulatory institutions and that the latter need to be created to correct so-called failures in the former. Instead, we should regard the regulations that dictate how various parties to transactions operate as part of the set of services that can be provided by the market and which are produced by the entrepreneurial process. They can be provided directly by market participants and also by independent institutions, such as exchanges or professions. If regulation is understood as part of the package of services which govern the operation of the market then the process of competition is necessary to discover the best form of regulation. It is not in doubt that the market can provide regulatory services. The open questions relate to the market's efficacy in doing so. Regulation is not something that has to be 'done' to a market from outside.

Instead of market failure analysis, the right framework for the economic analysis of regulation should involve three steps.

Firstly, a comparative institutions analysis will help us understand whether market institutions or government institutions are likely to be most effective at maximising welfare in particular circumstances. Or, at least it can help us define the relative advantages and disadvantages of private and government regulation in a particular context. In the market failure model, government regulation is always theoretically desirable because the market will never settle on a theoretical welfare-maximising position. Secondly, we can determine the legal environment most conducive to the evolution

of regulatory institutions within the market. Thirdly, if government regulatory institutions are preferred, we can consider the policy environment in which they might best complement, rather than replace, evolved market institutions. In other words, we should consider the relative merits of alternative institutional approaches to the provision of regulation. This approach is not widely discussed in the literature.³³

In terms of practical policy, the most obvious approach in financial markets is to make government regulation optional, but require market participants to make very clear whether their products are regulated by the state. That would at least ensure that the possibility of private regulation was not closed off. If private regulatory institutions developed, the public could choose whether they wanted to obtain services from institutions also regulated by the state.

This approach of ‘regulatory competition’ between state and private regulators does work. As has been noted above, AIM provides a regulatory environment for the trading of shares in companies, many of which are not affected by EU directives on listing and trading. Secondly, in a different area, in London consumers can choose between cab services provided by Uber, with its own approach to regulating quality, and black cabs with a different approach to the regulation of both quality and price. TfL should encourage this approach and it should not be able to establish a regulatory monopoly (see below).

Furthermore, the state should be very careful before restricting the activities of private regulators on competition grounds. At the very least, when considering such issues, the market should be defined widely and the case that a regulatory platform might be contestable should be considered. Uber, for example, may have a virtual monopoly in its very specific product field in some countries, but it competes with taxis, private hire cars, buses, tubes and private cars.

The market failure model in which we think about regulation should be jettisoned. The conditions for perfect competition and welfare maximisation will never be met in a market. It can never be known in advance whether statutory regulation will help. Of course, decisions have to be made about regulation, but, if those decisions are made by statutory regulatory bodies

33 There are analogies here with the work of Elinor Ostrom who won the Nobel Prize in 2009 who did ask some of these questions in relation to the institutional framework for managing environmental resources.

themselves, they will be subject to behavioural biases and biases that arise from public choice interests. We should therefore avoid the creation of regulatory bodies that have no effective constraints and that can write rules widely and more or less without limit or any form of accountability. Where statutory regulators are set up, they should operate under strict constraints. Having different statutory regulators for different parts of the market, as used to be the case in financial markets before 2000, is also an advantage as it allows comparisons and allows products that perform different functions to be regulated according to different principles. This allows some trial, error and learning between different regulatory approaches.

One further reform which might help re-establish regulatory pluralism would be to allow the Competition and Markets Authority to investigate both whether regulatory services provided by the state are monopolistic and whether state regulators inhibit competition. TfL, for example, should not be able to establish a regulatory monopoly by prohibiting Uber. Regulatory services are too important to be provided by statutory monopolies with inbuilt behavioural and institutional biases to expand their role.

References

- Akerlof, G. A. (1970) The Market for 'Lemons': Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics* 84(3): 488-500.
- Arthur, T. and Booth, P. M. (2010) *Does Britain Need a Financial Regulator?* London: Institute of Economic Affairs.
- Bellis, C. S. (2000) Professions in Society. *British Actuarial Journal* 6(2): 317-364.
- Booth, P. M. (1997) The Political Economy of Regulation. *British Actuarial Journal* 3(3): 675-707.
- Booth, P. M. (2007) 'Freedom with Publicity' — The Actuarial Profession and United Kingdom Insurance Regulation from 1844 to 1945. *Annals of Actuarial Science* 2(1): 115-145.
- Buchanan, J. (1965) An Economic Theory of Clubs. *Economica* 32(125): 1-14.
- Burns, J. (1909) *Stock Exchange Investments in Theory and Practice*. London: Charles and Edwin Layton.
- Capie, F. H. and Wood, G. E. (2013) Do we need regulation of bank capital? Some evidence from the UK. *Current Controversies* 40. London: Institute of Economic Affairs.
- Davis, L., Neal, L. and White, E. N. (2004) The development of the rules and regulations of the London Stock Exchange, 1801–1914. Paper prepared for the Vanderbilt University seminar, 2004.

Friedman, M. (1962) *Capitalism and Freedom*. University of Chicago Press.

FCA (2015) The FCA's approach to advancing its objectives 2015. London: Financial Conduct Authority.

FSA (2003) Reasonable Expectations: Regulation in a Non-Zero Failure World. London: Financial Services Authority.

FSA (2007) *Principles-based regulation - Focusing on the outcomes that matter*. London: Financial Services Authority.

Haldane, A. (2012) The Dog and the Frisbee. Speech to Jackson Hole Economic Policy Symposium. <https://www.bis.org/review/r120905a.pdf>

Hayek, F. A. (1979) *Law, Legislation and Liberty, Volume 3: The Political Order of a Free People*. London: Routledge.

Kynaston, D. (2011) *City of London – The History*. London: Chatto and Windus.

Llewellyn, D. (1999) The Economic Rationale for Financial Regulation. Occasional Paper 1. London: Financial Services Authority.

Lightfoot, W. (2003) Managing Financial Crises. In *The Regulation of Financial Markets* (eds P. M. Booth and D. Currie). London: Institute of Economic Affairs.

Macey, J. (2013) *The Death of Corporate Reputation: How Integrity Has Been Destroyed on Wall Street*. New York: Prentice Hall.

Morrison, A. (2009) *Ratings agencies, regulation and financial market stability*. In *Verdict on the Crash – Causes and Policy Implications* (ed. P. Booth). London: Institute of Economic Affairs.

Nicoll, J. (1898) The relation of the actuarial profession to the state. *Journal of the Institute of Actuaries* 34: 158-251.

Stringham, E. (2015) *Private Governance: Creating Order in Economic and Social Life*. Oxford University Press.

Zeff, S. A. (2003) How the U.S. Accounting Profession Got Where It Is Today: Part I. *Accounting Horizons* 17(3): 189-205.

The Institute of Economic Affairs
2 Lord North Street
London SW1P 3LB
Tel 020 7799 8900
email iea@iea.org.uk

