



## Understanding Regulation: Theory, Strategy, and Practice

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## Why Regulate?

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### Abstract and Keywords

This chapter examines the motives underlying regulation, first by considering the technical justifications for regulating that may be given by a government that is assumed to be acting in pursuit of the public interest. It then discusses rationales for regulating that can be described as instances of ‘market failure’, with particular reference to monopolies and natural monopolies, windfall profit (also known as ‘economic rent’), externalities (or ‘spillovers’), information inadequacies, continuity and availability of service, anti-competitive behaviour and predatory pricing, public goods and moral hazard, unequal bargaining power, scarcity and rationing, rationalisation and coordination, and planning. It also looks at rights-based and social rationales for regulating.

*Keywords:* regulation, public interest, market failure, monopolies, windfall profit, externalities, anti-competitive behaviour, predatory pricing, public goods, moral hazard

Motives for regulating can be distinguished from technical justifications for regulating. Governments may regulate for a number of motives—for example, they may be influenced by the economically powerful and may act in the interests of the regulated industry or they may see a particular regulatory stance as a means to re-election. Different commentators may analyse such motives in different ways, and a variety of approaches to such analysis will be discussed in Chapter 3. To begin, though, we should consider the technical justifications for

regulating that may be given by a government that is assumed to be acting in pursuit of the public interest.<sup>1</sup>

Many of the rationales for regulating can be described as instances of ‘market failure’. Regulation in such cases is argued to be justified because the uncontrolled marketplace will, for some reason, fail to produce behaviour or results in accordance with the public interest.<sup>2</sup> In some sectors or circumstances, there may also be ‘market absence’—there may be no effective market—because, for example, households cannot buy clean air or peace and quiet in their localities. In this chapter, we discuss the traditional ‘market failure’ rationales for regulating, but we also consider the argument that there may be other reasons to regulate and that these have a basis in human rights or social solidarity, rather than market, considerations.

### Market Failure Rationales

#### Monopolies and Natural Monopolies

Monopoly describes the position in which one seller produces for the entire industry or market. Monopoly pricing and output is likely to occur and be sustained where three factors obtain:<sup>3</sup>

- (p.16)** • A single seller occupies the entire market.
- The product sold is unique in the sense that there is no substitute sufficiently close for consumers to turn to.
- Substantial barriers restrict entry by other firms into the industry, and exit is difficult.

Where monopoly occurs, the market ‘fails’ because competition is deficient. From the public interest perspective, the problem with a firm occupying a monopolistic position is that in maximizing profits it will restrict its output and set price above marginal cost. It will do this because if it charges a single price for its product, additional sales will only be achieved by lowering the price on the entire output. The monopolist will forgo sales to the extent that lost revenue from fewer sales will be compensated for by higher revenue derived from increased price on the units still sold. The effects of monopoly, as compared to perfect competition, are reduced output, higher prices, and transfer of income from consumers to producers.

One response to potential monopolies is to use competition (or antitrust) laws so as to create a business environment that is conducive to competition. Where a ‘natural monopoly’ exists, however, the use of competition law may be undesirable.<sup>4</sup> A natural monopoly occurs when economies of scale available in the production process are so large that the relevant market can be served at the least cost by a single firm. It is accordingly less costly to society to have production carried out by one firm than by many. Thus, rather than have three railway or electricity companies laying separate networks of rails or cables

where one would do, it may be more efficient to give one firm a monopoly subject to regulation of such matters as prices and access to the network. Determining whether a natural monopoly exists requires a comparison of demand for the product with the extent of the economies of scale available in production. If a firm is in a position of natural monopoly then, like any monopoly, it will present problems of reduced output, higher prices, and transfers of wealth from consumers to the firm. Restoration of competition by use of competition law is not, however, an appropriate response, since competition may be socially costly and thus regulation of prices, quality, and output as well as access may be called for. The regulator will try to set price near incremental cost (the cost of producing an additional unit) in order to encourage the natural monopolist to expand its output to the level that competitive conditions would have induced.

**(p.17)** Not all aspects of a supply process may be naturally monopolistic. As Ogus points out,<sup>5</sup> the economies of scale phenomenon may affect only one part of a given process—for instance the *transmission* of, say, electricity, rather than its *generation*.<sup>6</sup> The task of many governments and regulators (at least those committed to minimalist regulation) is to identify those parts of a process that are naturally monopolistic so that these can be regulated while other aspects are left to the influence of competitive forces.<sup>7</sup>

### Windfall Profits

A firm will earn a windfall profit (sometimes called an ‘economic rent’ or excess profit) where it finds a source of supply significantly cheaper than that available in the marketplace.<sup>8</sup> It may do so by, say, locating a rich seam of an easily extracted mineral; by coming upon a material efficiency in a production process; or by possessing an asset that suddenly escalates in value—for example, a boat in a desert town that has been flooded. Regulation may be called for when it is desired either to transfer profits to taxpayers or to allow consumers or the public to benefit from the windfall.

Where the windfall is the result of planned investments of money, effort, or research, or where society might want to create incentives to search for new efficiencies, products, or areas of demand, there is a case for allowing windfall profits to be retained. (If ‘excess’ profits are earned, it may be appropriate to limit these so that rewards and incentives are proportionate to the effort or investment that has produced the return.) In the desert town, it may be desirable to encourage some individuals to store boats in order to cope with periodic floods. If, however, the windfall is the result of good fortune rather than effort, exploration, or research, the case for taking the profits for public benefit may be stronger. Even in such cases, however, there will still be an argument for leaving windfall profits where they lie. If the state deprives a property owner of the windfalls that flow from such ownership, this may be seen by market actors as rendering property rights less secure, and this uncertainty may be bad for

business generally. The balance between the public's gains from intervention and any negative effects on markets will have to be assessed in specific cases.

### **(p.18)** Externalities

The reason for regulating externalities (or 'spillovers') is that the price of a product does not reflect the true cost to society of producing that good, and excessive consumption accordingly results.<sup>9</sup> Thus, a manufacturer of car tyres might keep costs to consumers down by dumping pollutants arising from the manufacturing process into a river. The price of the tyres will not represent the true costs that production imposes on society if clean-up costs are left out of account. The resultant process is wasteful because too many resources are attracted into polluting activities (too many tyres are made and sold) and too few resources are devoted by the manufacturer to pollution avoidance or adopting pollution-free production methods. The rationale for regulation is to eliminate this waste—and to protect society or third parties suffering from externalities—by compelling the internalization of spillover costs—on 'polluter pays' principles.

### Information Inadequacies

Competitive markets can only function properly if consumers are sufficiently well informed to evaluate competing products.<sup>10</sup> The market may, however, fail to produce adequate information and may fail for a number of reasons: information may cost money to produce (e.g. because researching the effects of a product, such as a drug, may prove expensive). The producer of information, however, may not be compensated by others who use that information (e.g. other manufacturers of the drug). The incentive to produce information may accordingly be low. There may also be incentives to falsify information—where, for example, consumers of the product are ill-positioned to challenge the falsification and seek remedies for damages suffered or where they face high costs in doing so. Areas in which consumers purchase a type of product very infrequently may give rise to this problem. The information produced may, in addition, not be of sufficient assistance to the consumer—for instance, because the consumer lacks the expertise required to render technical data useful. Finally, collusion in the marketplace, or insufficient competition, may reduce the flow of information below the levels consumers might want. Producers, as a group, may thus fail to warn consumers about the general hazards or deficiencies associated with a product. Breyer notes that until the US government required disclosure, accurate information was unavailable to most buyers in that country **(p.19)** concerning the durability of light bulbs, nicotine content of cigarettes, fuel economy for cars, or care requirements for textiles.<sup>11</sup>

Regulation, by making information more extensively accessible, accurate, and affordable, may protect consumers against information inadequacies and the consequences thereof, and may encourage the operation of healthy, competitive markets.

### Continuity and Availability of Service

In some circumstances, the market may not provide the socially desired levels of continuity and availability of service. Thus, where demand is cyclical (for example, as with passenger air transport to a holiday island) waste may occur as firms go through the processes of closing and reopening operations.<sup>12</sup>

Regulation may be used to sustain services through troughs—for example, by setting minimum prices at levels allowing the covering of fixed costs through lean periods. This would be justified where the extra costs imposed on consumers by pricing rules are less than those caused by the processes of closing and opening services in response to the business cycle. The subsidizing of off-peak by peak travellers will, however, raise issues of equity to be considered alongside questions of social policy. In the case of some products or services—for example, water services—it may be considered, as a matter of social policy, that these should be generally available at least to a certain minimum standard. In the unregulated market, however, competition may lead to ‘cream-skimming’—the process in which the producer chooses to supply only the most profitable customers—and services may be withdrawn from poorer or more geographically dispersed groupings of customers. Regulation may be justified in order to produce socially desirable results, even though the cross-subsidizations effected may be criticizable as inefficient and unfair.

### Anti-Competitive Behaviour and Predatory Pricing

Markets may be deficient not merely because competition is lacking: they may produce undesirable effects because firms behave in a manner not conducive to healthy competition. A principal manifestation of such behaviour is predatory pricing. This occurs when a firm prices below costs, in the hope of driving competitors from the market, achieving a degree of domination, and then using its position to recover the costs of predation and increase profits at the expense of consumers. Preconditions for a rational firm to engage in predatory pricing are that: it must be able to outlast its competitors once prices are cut below variable costs; and it must be able to maintain prices well **(p.20)** above costs for long enough to recover its prior losses. The costs of entry to and exit from the market must, accordingly, allow it this period of comfort before new competition arises. The aim for regulators is to sustain competition and protect consumers from the ill-effects of market domination by outlawing predatory or other forms of anti-competitive behaviour.

### Public Goods and Moral Hazard

Some commodities, e.g. security and defence services, may bring shared benefits and be generally desired. It may, however, be very costly for those paying for such services to prevent non-payers (‘free-riders’) from enjoying the benefits of those services. As a result, the market may fail to encourage the production of such commodities, and regulation may be required—often to overcome the free-rider problem by imposing taxes.

Similarly, where there is an instance of moral hazard—where someone other than the consumer pays for a service<sup>13</sup>—there may be excessive consumption without regard to the resource costs being imposed on society. If, for example, medical costs are not met by the patient, but by the state or an insurer, regulatory constraints may be required if excessive consumption of medical services is to be avoided.

### Unequal Bargaining Power

One precondition for the efficient or fair allocation of resources in a market is equal bargaining power. If bargaining power is unequal, regulation may be justified in order to protect certain interests. Thus, if unemployment is prevalent it cannot be assumed that workers will be able to negotiate effectively to protect their interests, and regulation may be required to safeguard such matters as the health and safety of those workers. Inequalities of bargaining power may thus be the products of relative positions in the marketplace, but they may also stem from asymmetries of information. Workers, for instance, may be poorly placed to secure health protections from their employers because they lack the information that would put them on an equal footing in negotiations.

### Scarcity and Rationing

Regulatory rather than market mechanisms may be justified in order to allocate certain commodities when these are in short supply. In a petrol **(p.21)** shortage, for example, public interest objectives may take precedence over efficiency so that, instead of using pricing as an allocative instrument, the petrol is allocated with reference to democratically generated lists of priorities.

### Rationalization and Coordination

In many situations, it is extremely expensive for individuals to negotiate private contracts so as to organize behaviour or industries in an efficient manner—the transaction costs would be excessive.<sup>14</sup> The firms in an industry may be too small and geographically dispersed to bring themselves together to produce efficiently. (This might happen when small fishing concerns in a sparsely populated area fail to make collective marketing arrangements.) Enterprises may, moreover, have developed different and incompatible modes of production. In these circumstances, regulation may be justified as a means of rationalizing production processes (perhaps standardizing equipment in order to create effective networks) and in order to coordinate the market. Centralized regulation holds the advantage over individual private law arrangements, where information can be more efficiently communicated through public channels and economies of scale can be achieved by having one public agency responsible for upholding standards.<sup>15</sup>

It is noteworthy that this rationale for regulation is based more on the desire to *enable* effective action to take place than on the need to prohibit undesirable behaviour.

### Planning

Markets may ensure reasonably well that individuals' consumer preferences are met, but they are less able to meet the demands of future generations or to satisfy altruistic concerns (e.g. the quality of an environment not personally enjoyed).<sup>16</sup> There is also, as far as altruism is concerned, a potential free-rider problem. Many people may be prepared to give up some of their assets for altruistic purposes only if they can be assured that a large number of others **(p. 22)** will do the same. The problems and costs of coordination mean that regulation may be required in order to satisfy such desires.<sup>17</sup>

### Rights-based and Social Rationales for Regulating

It has been argued, notably by Tony Prosser,<sup>18</sup> that the market failure rationale does not adequately justify the range of regulatory activities that are commonly undertaken. He suggests, moreover, that the market failure analysis treats regulation as second-best to market allocation and that this does not properly explain or justify current practice. Prosser, accordingly, points to the relevance of two further rationales for regulating—to protect human rights<sup>19</sup> and to further social solidarity.<sup>20</sup> In doing so, he takes issue with the assumptions that market solutions are always the best ways to deal with decisions on the allocation of goods and services, and that non-market failure rationales for regulating are essentially arbitrary. The idea that market allocations are 'technical' whereas social justice issues are 'political' is also questioned. What can be said as a matter of description, says Prosser, is that environmental and many other regulators can properly be seen as seeking to further social objectives, rather than as simply acting to correct market failures. Even where markets are involved, regulatory laws, on such a view, are not limited to merely correcting the market but often serve to constitute market relations, to provide the frameworks of rights and processes that allow markets to work, and to protect markets from fragmentation. In many contexts, accordingly, regulation can be seen as prior, not secondary, to the market and as a first-choice method of organizing social relations.<sup>21</sup>

**(p.23)** Consistent with such regulatory rationales are examples of regulating for reasons of distributional justice, rights protection, and citizenship—as, for example, where regulated utilities are obliged to apply geographically averaged tariffs or to meet universal service obligations. Governments, indeed, regulate on a host of matters simply in order to further social policies such as the prevention of discrimination based on race, sex, or age. Social objectives, moreover, are sometimes furthered by regulating even where this involves overruling the preferences of market players and acting paternalistically. Thus, society may, as a matter of policy, decide to act in the face of drivers' desires and demand that seat belts be worn in motor vehicles. In the strongest form of such paternalism, the decision is taken to regulate even where it is accepted that the

citizens involved would not support regulation and that they are possessed of full information on the relevant issue.<sup>22</sup>

**Conclusions: Choosing to Regulate**

There are, as seen above (and in Table 2.1) a number of well-recognized reasons commonly given for regulating. It should be stressed, however, that in any one sector or industry the case for regulating may well be based not on a single but on a combination of rationales—be these market failure-, human rights-, or social solidarity-based. Health and safety regulation, for example, can be justified with reference to such matters as externalities, information defects, unequal bargaining, human rights, and paternalism.<sup>23</sup>

A second point to be borne in mind in considering whether to regulate, is that the market and all its failings should be compared with regulation and all its failings. Any analysis of the need to regulate will be skewed if it is assumed that regulatory techniques will operate perfectly. We will see during this book that all regulatory strategies have strengths and weaknesses in relation to their implementation, as well as their design. Regulatory and market solutions to problems should be considered in all their varieties and with all likely deficiencies and side-effects if true comparisons are to be effected.

**(p.24)**

**Table 2.1. Rationales for regulating**

Rationale	Main aims of regulation	Example
Monopolies and natural monopolies	Counter tendency to raise prices and lower output.	Utilities.
	Harness benefits of scale economies.	
	Identify areas that are genuinely monopolistic.	
Windfall profits	Transfer benefits of windfalls from firms to consumers or taxpayers.	Firm discovers unusually cheap source of supply.
Externalities	Compel producer or consumer to bear full costs of production, rather than pass on to third parties or society.	Pollution of river by factory.
Information inadequacies	Inform consumers to allow market to operate.	Pharmaceuticals. Food and drinks labelling.

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Rationale	Main aims of regulation	Example
Continuity and availability of service	Ensure socially desired (or protect minimal) level of 'essential' service.	Transport service to remote region.
Anti-competitive and predatory pricing behaviour	Prevent anti-competitive behaviour.	Below-cost pricing in transport.
Public goods and moral hazard	Share costs where benefits of activity are shared but free-rider problems exist.	Defence and security services. Health Services.
Unequal bargaining power	Protect vulnerable interests where market fails to do so.	Health and Safety at Work.
Scarcity and rationing	Public interest allocation of scarce commodities.	Petrol shortage.
Rationalization and coordination	Secure efficient production where transaction costs prevent market from obtaining network gains or efficiencies of scale.	Disparate production in agriculture and fisheries.
	Standardization.	
Planning	Protect interests of future generations.	Environment.
	Coordinate altruistic intentions.	
Human rights	Protection of weaker citizens.	Discrimination. Embryology.
Social protection	Social solidarity.	Broadcasting.

### Notes:

<sup>(1)</sup> For detailed reviews of public interest reasons for regulating see S. Breyer, *Regulation and Its Reform* (Cambridge, MA, 1982), ch. 1; A. Ogus, *Regulation: Legal Form and Economic Theory* (Oxford, 1994), ch. 3; E. Gellhorn and R.J. Pierce, *Regulated Industries* (St Paul, MN, 1982), ch. 2; J. Kay and J. Vickers, 'Regulatory Reform: An Appraisal', in G. Majone (ed.), *De-Regulation or Re-Regulation?* (London, 1989); B. Mitnick, *The Political Economy of Regulation* (New York, 1980), ch. 5; C. Sunstein, *After the Rights Revolution* (Cambridge, MA, 1990), ch. 2; C. Hood, *Explaining Economic Policy Reversals* (Buckingham, 1995).

<sup>(2)</sup> See also J. Francis, *The Politics of Regulation* (Oxford, 1993), ch. 1.

<sup>(3)</sup> See Gellhorn and Pierce, *Regulated Industries*, 36–7 and Chapter 15 below. On regulating monopolies generally see C. Foster, *Privatisation, Public Ownership and the Regulation of Natural Monopoly* (Oxford, 1992), ch. 6; Ogus, *Regulation*, 30–3; Breyer, *Regulation and Its Reform*, 15–19; Francis, *Politics of Regulation*, ch. 3; E. Gellhorn and W. Kovacic, *Antitrust Law and Economics* (St Paul, Minn., 1994), chs. 3 and 4.

<sup>(4)</sup> On natural monopolies see M. Waterson, *Regulation of the Firm and Natural Monopoly* (Oxford, 1988), ch. 2; Foster, *Privatisation*, ch. 6.2.

<sup>(5)</sup> Ogus, *Regulation*, 31.

<sup>(6)</sup> G. Yarrow, ‘Regulation and Competition in the Electricity Supply Industry’, in J. Kay, C. Mayer, and D. Thompson (eds), *Privatisation and Regulation* (Oxford, 1986).

<sup>(7)</sup> See Chapter 23 below, and the White Paper, *Privatising Electricity*, Cmnd. 322 (London, 1988).

<sup>(8)</sup> See Breyer, *Regulation and Its Reform*, 21.

<sup>(9)</sup> See Breyer, *Regulation and Its Reform*, 23–6; Ogus, *Regulation*, 35–8.

<sup>(10)</sup> See F. Hayek, ‘The Use of Knowledge in Society’ (1945) 35 *American Economic Review* 519; Breyer, *Regulation and Its Reform*, 26–8; Ogus, *Regulation*, 38–41.

<sup>(11)</sup> Breyer, *Regulation and Its Reform*, 28.

<sup>(12)</sup> Ogus, *Regulation*, 43–6.

<sup>(13)</sup> See generally G. Calabresi, *The Cost of Accidents: A Legal and Economic Analysis* (New Haven, 1970).

<sup>(14)</sup> See Ogus, *Regulation*, 41–2; S. Breyer and P. MacAvoy, ‘The Federal Power Commission and the Coordination Problem in the Electrical Power Industry’ (1973) 46 *Southern California Law Review* 661.

<sup>(15)</sup> In the transportation sector, coordination and regulation by a central agency may be needed in order to organize a route network—see S. Glaister, *Deregulation and Privatisation: British Experience* (Washington, DC, 1998).

<sup>(16)</sup> See Ogus, *Regulation*, 54; R.B. Stewart, ‘Regulation in a Liberal State: The Role of Non-Commodity Values’ (1983) 92 *Yale Law Journal* 1537; Sunstein, *After the Rights Revolution*, 57–61.

<sup>(17)</sup> Ogus, *Regulation*, 54.

(<sup>18</sup>) T. Prosser, 'Regulation and Social Solidarity' (2006) 33 *Journal of Law and Society* 364–87; 'Public Service Law' (2000) 63 *Law and Contemporary Problems* 63–82. See also C. McCrudden, 'Social Policy and Economic Regulators' in C. McCrudden, *Regulation and Deregulation* (Oxford, 1999) and M. Feintuck, 'Regulatory Rationales Beyond the Economic' in R. Baldwin, M. Cave, and M. Lodge (eds), *The Oxford Handbook of Regulation* (Oxford, 2010).

(<sup>19</sup>) See R. Brownsword, 'What the World Needs Now: Techno-Regulation, Human Rights and Human Dignity' in R. Brownsword (ed.), *Global Governance and the Quest for Justice* (Oxford, 2004).

(<sup>20</sup>) A developing of the argument is offered in T. Prosser, *The Regulatory Enterprise: Government Regulation and Legitimacy* (Oxford, 2010), 11–20, where four rationales for regulation are distinguished: (1) regulation for economic efficiency and consumer choice (market-centred regulation); (2) regulation to protect rights; (3) regulation for social solidarity; and (4) regulation as deliberation (the provision of processes to resolve problems). See also H. McVea, 'Financial Services Regulation Under the Financial Services Authority: A Reassertion of the Market Failure Thesis?' (2005) 64 *Cambridge Law Journal* 413–48; J. Black, 'Critical Reflections on Regulation', *LSE Centre for Analysis of Risk and Regulation (CARR), Discussion Paper 4* (2002).

(<sup>21</sup>) See C. Shearing, 'A Constitutive Conception of Regulation' in P. Grabosky and J. Braithwaite (eds), *Business Regulation and Australia's Future* (Canberra, 1994).

(<sup>22</sup>) *Ibid.*, 51–4.

(<sup>23</sup>) Breyer, *Regulation and Its Reform*, 34; Prosser, 'Regulation and Social Solidarity'.

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