

# Understanding Regulation

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## 1. The Puzzle of Regulation

The American and European societies are much richer today than they were 100 years ago, yet they are also vastly more regulated. Today, we live in houses and apartment buildings whose construction – from zoning, to use of materials, to fire codes – is heavily regulated. We eat food grown with heavily regulated fertilizers and hormones, processed in heavily regulated factories with publicly monitored technologies, and sold in heavily regulated outlets with elaborate labels and warnings. Our means of transport, including cars, buses, and airplanes, are made, sold, driven, and maintained under heavy government regulation. Our children attend schools that teach heavily regulated curriculae, visit doctors following heavily regulated procedures and paid government-controlled prices, and play on play-grounds using government-mandated safety standards.

The extraordinary pervasiveness of government regulation in our lives raises a number of questions. Is regulation generally a good idea, as the positive correlation between its growth and the growth of income seems to indicate, or has it been an obstacle to economic and social progress? Have the USA and Western Europe grown in spite of it? How much regulation of a particular activity is appropriate? Does the nature of the activity being regulated, or the characteristics of a country, influence the optimal choice? Is the level of regulation we observe in fact an outcome of efficient social choice, or are other factors as or more important?

Over the twentieth century, economists have come up with a number of ways of thinking about government regulation. In this paper, I review some of the key theories of economic regulation, and assess their relevance, paying particular attention to the regulation of securities markets. The three theories I focus on are the welfare-theoretic or public interest theory of regulation associated with Pigou (1938), the contracting theory associated with Coase (1960), and the capture theory of Stigler (1971). I then describe an alternative way of thinking about regulation and social control of business more generally, developed in a series of papers with Simeon Djankov, Edward Glaeser, Rafael La Porta, and Florencio Lopez-de-Silanes. Finally, I use this theory to shed light on some differences in regulatory patterns around the world.

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## 2. Theories of Regulation

The standard ‘public interest’ or ‘helping hand’ theory of regulation is based on two assumptions. First, unhindered markets often fail because of the problems of monopoly or externalities. Second, governments are benign and capable of correcting these market failures through regulation. This theory of regulation has been used both as a prescription of what governments should do, and as a description of what they actually do, at least in democratic countries. According to this theory, governments control prices so that natural monopolies do not overcharge, impose safety standards to prevent accidents such as fires or mass poisonings, regulate jobs to counter the employer’s monopsony power over the employee, regulate security issuances so investors are not cheated, and so on. The public interest theory of regulation has become the cornerstone of modern public economics, as well as the bible of socialist and other left-leaning politicians. It has been used to justify much of the growth of public ownership and regulation over the twentieth century (Allais, 1947; Meade, 1948; Lewis, 1949).

Public interest theory of regulation has been subjected to a number of criticisms, associated mostly with the Chicago School of Law and Economics. These criticisms proceed in three intellectual steps. First, markets and private orderings can take care of most market failures without any government intervention at all, let alone regulation. Second, in the few cases where markets might not work perfectly, private litigation can address whatever conflicts market participants might have. And third, even if markets and courts cannot solve all problems perfectly, government regulators are incompetent, corrupt, and captured, so regulation would make things even worse. Consider these three lines of argument in order.

The first line of attack criticises the public interest theory for exaggerating the extent of market failure, and for failing to recognise the ability of competition and private orderings to address many of the alleged problems. Competition for labour, the argument goes, itself assures that employers provide safety and good working conditions for employees. If an employer failed to do so, his competitors would offer the more efficient packages, and thereby attract better workers at lower wages. Likewise, private markets assure the efficient safety levels in a variety of products and services, such as trains, houses or cars. Sellers who fail to deliver such levels of safety lose market share to competitors who run safer trains, build safer houses, or produce safer cars. The competition criticism also maintains that what looks like a monopoly to would-be regulators is subject to potential entry and competition. Moreover, cartels typically break up after a short time because their participants cheat to make windfall profits.

Even when competitive forces are not strong enough, private orderings work to address potential market failures. Neighbours resolve disputes among themselves, without any government intervention, because they need to get along with each other over long stretches of time (Ellickson, 1991). Industries form associations that guarantee quality, and penalise cheaters among themselves to assure that, in the long run, customers continue their patronage (Greif, 1989; Bernstein, 1992). Families, cities, and ethnic groups establish reputations in the marketplace, and thereby control any possible misconduct by their members.

The thrust of these arguments is that the domain of market failure or socially harmful conduct that is not automatically controlled by impersonal forces of competition is extremely limited, and therefore so is the scope for any desirable intervention

by the state. But this, of course, is only the first step in a much broader assault on regulation.

The second step, originating in the work of Coase (1960), maintains further that, in the few cases where competition and private orderings do not successfully address market failures, impartial courts can do so by enforcing contracts and common law rules for torts. Employers can offer workers employment contracts that specify what happens in the event of an accident, security issuers can voluntarily disclose information to potential investors and guarantee its accuracy, and so on. As long as courts enforce these contracts, equilibrium outcomes are efficient. Indeed, even when there are no contracts, efficient adjudication by courts restores efficiency through appropriate tort rules. When courts award damages to harmed plaintiffs correctly, potential tort-feasors face exactly the right incentives to take the efficient level of precaution (Posner, 1972). With well functioning courts enforcing property rights and contracts, the scope for desirable regulation – even by a ‘helping hand’ government – is minimal.

Coase’s logic has proved extremely powerful, both as a technical critique of regulation and as a libertarian manifesto. Following Coase, the Chicago school has gone much further. The third, and crucial step in its critique of regulation is to question the assumptions of a benevolent and competent government. This is the essence of Stigler’s capture theory (Stigler, 1971; Posner, 1974). As forcefully summarised by Peltzman (1989), this theory consists of two basic propositions. First, the political process of regulation is typically captured by the industry. Regulation not only fails to counter monopoly pricing, but is to the contrary used to sustain it through state intervention. Second, even in the cases where, under the influence of organised consumer groups, regulators try to promote social welfare, they are incompetent and rarely succeed. Thus the scope for government regulation is minimal at best, and such intervention is futile and dangerous even in the rare cases where there is scope.

The Chicago critique of public interest regulatory theory is one of the finest moments of twentieth century economics. The pioneers of this critique not only provided new theories for thinking about the role of government, but also delivered predictions which in many cases have been supported by the evidence – particularly the evidence of pervasive regulatory failure. Yet the Chicago critique cannot be the final answer, for two crucial reasons.

At the theoretical level, the Chicago School’s confidence in private orderings and in courts is excessive. Private orderings indeed work extremely well in some situations, but they also degenerate into the anarchy of private enforcement, where the strong and not the just win the day. Moreover, Coase and his followers have given far too much leeway to courts, relying on them as unbiased, informed, and incorruptible promoters of social welfare. Much evidence, however, shows that courts around the world are more often than not highly inefficient, politically motivated, slow, and even corrupt (Johnson *et al.*, 2002; Djankov *et al.*, 2003a). The lopsided belief in the benevolence of courts and the malevolence of regulators has neither a conceptual foundation, nor a solid grounding in reality. After all, both judges and regulators are government agents, subject to political pressures, incentives, and constraints.

At the empirical level, the Chicago tradition has failed to come to grips with the basic facts described in the first paragraph of this paper, namely that today we live in a much richer, more benign, but also more regulated society, and that as consumers we are generally happy with most of the regulations that protect us. We are happier knowing that trains and airplanes are safe than savouring the thought of a fortune

which our loved ones would collect in a trial should we die in a fiery crash. In securities markets, investors prefer a level-playing regulated field to the prospect of loss recovery through litigation. Indeed, as I discuss below, there is strong evidence that regulation is beneficial for the development of financial markets and to public participation in them (Glaeser *et al.*, 2001; La Porta *et al.*, 2004). A more nuanced theory, which incorporates the powerful Chicago critiques of the public interest approach to government, but also recognises the benefits of public involvement in at least some activities, is clearly needed to keep the logic and the facts together.

### 3. The Enforcement Theory of Regulation

Suppose that ‘the society’ wishes to control business to pursue some socially desirable end: marginal cost pricing, safe food and water, or safety precautions by firms. As Djankov *et al.* (2003b) argue, there are four distinct strategies of such control, involving ever growing powers of the state vis-à-vis private individuals: market discipline, private litigation, public enforcement through regulation, and state ownership. These four strategies for social control of business are not mutually exclusive: competition and regulation often operate in the same market, as do private litigation and public regulation. In addition, there are common intermediate strategies of social control of business, such as private litigation to enforce public rules, which lies between pure regulation and pure litigation. Nonetheless, these four categories provide a useful analytical classification, which also has the advantage of following closely the historical discussions of the proper role of government.

To illustrate these categories, take the example of social control of securities issues. Promoters of such issues, be they entrepreneurs or underwriters, have a strong incentive to cheat investors by selling them worthless or overvalued securities, taking the money, and running off. When this so-called promoter’s problem is severe, people stop buying new issues, with the result that financial markets fail to grow or even disappear.

Suppose that the society has an interest in having broad and liquid securities markets and, to this end, deems it desirable that firms issuing equity disclose accurate information about their circumstances. The society has four choices. First, it can rely on the reputational incentives of the issuers themselves, or of their underwriters, to disclose the truth about the securities – this is the market discipline solution. Second, the society can rely on private suits by buyers of securities who feel that they had been cheated, under the general doctrines of contract or tort. In this scenario, security issuance would be treated as any other instance of a contract or a tort. The question for the court is whether the issuer or the underwriter provided inaccurate information or, alternatively, failed to provide information that a plausible standard of care would require. Third, the society can create a regulatory agency which mandates what should be disclosed by security issuers, inspects these disclosures, and penalises issuers and underwriters who fail to conform to the regulations.<sup>1</sup> Finally the government can nationalise all security issuance, so its own agents make representations and sell stocks. These are the four basic strategies of enforcement of good conduct.

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<sup>1</sup> The regulatory agency can also establish the rules for security issuance, but leave the enforcement of these rules to private litigation by the wronged investors.

These four strategies are ranked by the growing degree of public control over economic activity. With competition and private orderings, there is basically no public involvement at all. With courts, there is a role for impartial judges enforcing rules of good behaviour. These rules do not need to come from legislation, but may instead derive from custom or from judge-made common law and precedents. Even so, there is a public agent, the judge, who has at least some decision-making authority. With regulators, control by the state increases sharply. The state now writes the rules, inspects the product before it is sold, and possibly penalises sellers for delivering a bad product. Both the scope of government activity, and its centralisation, are greatly increased relative to private litigation. Finally, with state ownership, the government takes complete control over an activity.

The basic premise of the enforcement theory of regulation is that all of these strategies for social control of business are imperfect, and that optimal institutional design involves a choice among these imperfect alternatives. The enforcement theory specifically recognises a basic trade-off between two social costs of each institution: disorder and dictatorship. Disorder refers to the ability of private agents to harm others – to steal, overcharge, injure, cheat, impose external costs, etc. Dictatorship refers to the ability of the government and its officials to impose such costs on private agents. As we move from private orderings to private litigation to regulation to public ownership, the powers of the government rise, and those of private agents fall. The social losses from disorder decline as those from dictatorship increase. This tradeoff, which Djankov *et al.* (2003b) call the Institutional Possibility Frontier, is shown in Figure 1.

Consider the four strategies of social control of business from the perspective of this trade-off. The principal strength of market discipline as the method of enforcing good conduct is that it is free of public enforcers. There is no possibility of politicisation of

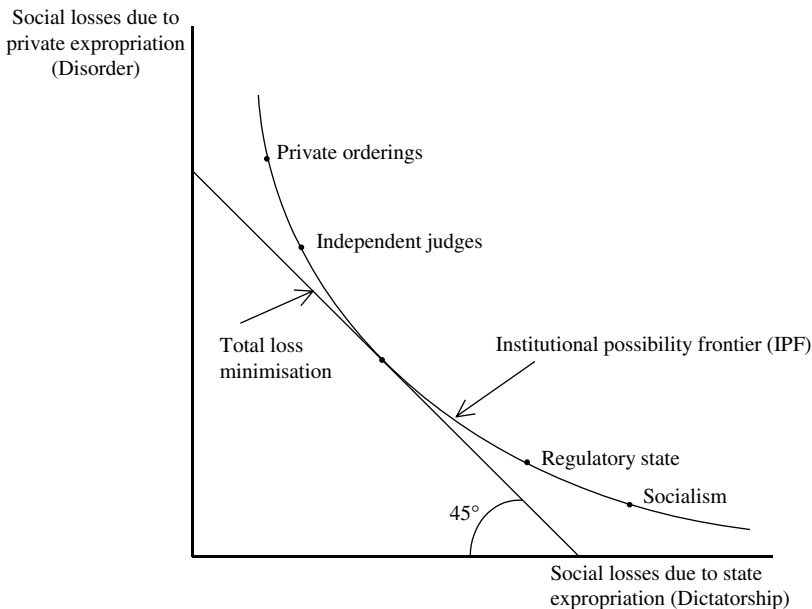


Fig. 1. Institutional possibilities.  
 Source: Djankov *et al.*, 2003b.

rules of conduct, of corruption, of costly and delayed enforcement of rules, of random or compromised choice of one competitor over another. But market discipline may be very weak at controlling disorder. Market participants can use their economic, political, or social resources to damage their rivals using methods ranging from predation to monopoly pricing to social exclusion to outright theft or violence. One man's peaceful private orderings become another man's death in the hands of the mafia. When market discipline can successfully control disorder and avoid Hobbesian anarchy, it is the best approach because it has the lowest social costs of dictatorship. Any case for public intervention relies crucially on the presumptive failure of market discipline to control disorder.

In many instances, this case for the effectiveness of market discipline is powerful. Consider the regulation of entry: the restriction on entry by new entrepreneurs through licensing and permits. Since entering firms are small, and since any failure to deliver quality products would be almost immediately recognised and penalised by customers, it is not clear why the quality of entrepreneurs or of their firms should be regulated at the entry level. To the extent that market discipline can control disorder, regulation or even courts, are unnecessary.

But market discipline may not be sufficient. Employers may under-invest in safety and then blame accidents on an injured worker's own carelessness. In security issuance, a fraudulent scheme can separate investors from their money very quickly, and undermine confidence in markets. The frequent Ponzi schemes in emerging markets, in which hundreds of thousands of investors lose their lifetime savings, are colourful evidence that market discipline does not eliminate fraud. In such instances, to control disorder, societies may efficiently accept a higher level of government intervention.

The traditional libertarian response to such market failure is to move one notch toward more dictatorship and less disorder by relying on the enforcement of good conduct through private litigation. Injured employees can sue their employers for damages. Investors can sue issuers and underwriters for damages when they believe that representations about the company's prospects were false or incomplete. Ideally, a judge would recognise quickly whether investors have been misled, and award damages to compensate them for their losses.

Private litigation has many advantages. At least in principle, such litigation is of no special interest to the government, and hence disputes can be resolved apolitically, with no favours to influential parties. Judges may also acquire experience and expertise in contract enforcement (as well as in handling tort cases), and hence address problems efficiently and expeditiously. This, indeed, is what Coase (1960) and later Posner (1995) had in mind in making the case for courts.

The reality of litigation is not, unfortunately, so perfect, and the trade-off between dictatorship and disorder is helpful for thinking about courts as well. To begin, the same forces that undermine the effectiveness of private orderings influence courts as well. As a result, courts are often subverted and the strong not the just win the case (Galanter, 1974). Some of the mechanisms of influencing courts are entirely legal. Hiring superior legal talent or using legal delay tactics are among them. Individual investors in Ponzi schemes or worthless security issues may stand little chance in court against wealthy and well-represented promoters.

Still other mechanisms, such as political influence on judges, are perhaps less appropriate, but still common, especially in countries where judges are not politically insulated (Ramseyer and Rasmusen, 1997). Politicians can then influence judges to help themselves and their financial backers, as recent evidence from Italy illustrates

only too clearly. In still other countries, judges are bribed with cash, benefits, or promises of promotion, as well as threatened if they do not rule for the strong (Dal Bo *et al.*, 2003). Because the rich and the politically connected have more resources to influence the path of justice, private litigation cannot be always counted on as an effective mechanism of enforcing socially desirable conduct.

A common mechanism for protecting courts from influence is to formalise legal procedures through codes, so as to minimise judicial discretion and the potential for subversion. Most countries, especially those in the civil law tradition, have heavily formalised their legal procedures to assure accuracy, and to prevent the subversion of justice. But such formalism is associated with serious delays, as well as unpredictable outcomes (Djankov *et al.*, 2003a). The Coasian ideal of cheap and efficient justice through private litigation is a far cry from reality.

A related mechanism for controlling the subversion of judges is to make them employees of the state, whose career concerns protect them from succumbing to outside influence. Truly independent judges are more vulnerable to private subversion than the state employed ones. But as judges become more dependent on the state, the risk of politicisation of their decisions rises.

As with market discipline, the enforcement theory points to the circumstances where private litigation is likely to be relatively effective. It is likely to work better where judges are better insulated from political pressure, which is probably the case in the more advanced economies. It is also likely to be more effective in the cases where the problem of 'inequality of weapons' between the litigants is smaller. For example, in relatively advanced economies, tenant landlord disputes or employment contract disputes may well be most efficiently resolved in specialised courts. Yet in countries and in the types of conflicts where judges are vulnerable to subversion, and the inequality of weapons is considerable pure private litigation is unlikely to be the efficient method of enforcing socially desirable conduct. Securities markets are one example illustrating this point: it is simply not plausible that defrauded investors can prevail in court against the richer, better connected, and better represented promoters and underwriters. Mechanisms for social control of business that are more effective at controlling disorder may be needed even if they are more vulnerable to dictatorship.

This brings us to the third strategy of enforcing rules, government regulation. Before turning to full-fledged public enforcement, note an extremely important intermediate strategy, namely private litigation using public rules. A government can create a set of rules governing private conduct and then leave the enforcement of these rules to private parties. The reason for doing so is that the enforcement of specific statutes through litigation might be considerably cheaper than that of broad contractual principles. It may be efficient, for example, for the government to specify the appropriate safety standards but to leave their enforcement to workers through private litigation. In securities markets, the government can mandate specific disclosures by an issuer, but then let dissatisfied investors sue. It may be cheaper for investors to establish in a trial that the company has failed to reveal specific information whose disclosure was mandated by law, than to prove issuer negligence in the absence of a statute.

Private enforcement of public statutes solves a number of problems with pure litigation. First, as the examples above suggest, the burdens on the courts and the litigants of establishing liability fall considerably when the statutes describe precisely what facts are needed to do so. Second, subversion of judges becomes more difficult and expensive when they lose discretion. It may be relatively easy to convince a

judge – by persuasion or bribery – that a security issuer who concealed information from investors is not liable when there are no specific rules as to what needs to be disclosed. It is much harder for the issuer to convince the same judge when the law states specifically what must be disclosed. Perhaps for these reasons, private enforcement of public rules is a highly efficient strategy of enforcing good conduct in many situations (Hay and Shleifer, 1998; Hay *et al.*, 1996). La Porta *et al.* (2004) show empirically that this is a crucially important strategy for enforcing good conduct in security issuance. Barth *et al.* (2003) similarly point to the importance of private enforcement of public disclosure rules in bank regulation.

At the same time, the creation of public rules – even those enforced privately – raises the scope for public abuse. Such rules can be used to expropriate the politically weak and to favour the politically strong. Mandatory safety precautions in factories, mines, and meat-packing plants during the progressive era in the USA at the beginning of the twentieth century, for example, are sometimes interpreted as an attempt by large established firms to prevent entry by smaller rivals by raising their costs from regulatory compliance (Libecap, 1992; Coppin and High, 1999).

Compared to the enforcement strategies described above, public regulation has a number of advantages in controlling disorder. First, unlike judges, public regulators can be expert and motivated to pursue social objectives in specific areas. This, indeed, has been the principal argument for public regulation of securities markets (Landis, 1938; Glaeser *et al.*, 2001; Pistor and Xu, 2002). A regulator can establish some expertise, for example, as to what constitutes a material omission from a prospectus, present market participants with specific rules, and then use its resources to make sure that these rules are followed by imposing its own sanctions or by convincing courts to rely on its rules. Second, because regulators can be provided with incentives to enforce social policy, they can in principle be more difficult to subvert than the disinterested judges. This combination of expertise and incentives is presumably what makes public enforcement in some circumstances more efficacious than private enforcement.<sup>2</sup>

Alas, public regulation is not without its problems, and the key problem is the risk of public abuse of market participants by an official who is either pursuing his own political interests or is captured by a particular group, including the regulated industry itself. Politicisation and over-enforcement are a particular problem in societies with few checks and balances: the executive can selectively turn its regulators against its enemies rather than violators of rules. Moreover, as emphasised by Stigler (1971), regulation can be subverted by competitors who want to use it to deter entry or to maintain cartels. Although motivated regulators might be more difficult to subvert than judges, regulated industries have developed a range of techniques to turn regulation into a mechanism of protecting their rents rather than public welfare. The costs of dictatorship rise as those of disorder decline.

So what are the circumstances where regulation is the appropriate strategy of enforcing good conduct? The basic implication of the theory that the resort to regulation is only necessary when the level of disorder is too high for private orderings and even courts to deal with successfully. This case is most compelling in situations where the problem of inequality of weapons between private parties involved in a

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<sup>2</sup> Along these lines, Glaeser and Shleifer (2003) argue that ‘The rise of the regulatory state’ in the USA during the Progressive Era at the beginning of the twentieth century was a response to the growing problems of subversion of courts by robber barons.



transaction is too severe. As indicated earlier, securities regulation is one instance where this case for regulation based on the enforcement considerations is compelling. Workplace safety is yet another. In contrast, entry of new firms is unlikely to require regulatory control, and most labour regulations in environments that have competition for labour are difficult to justify on efficiency grounds.

The second implication is that the case for regulation is stronger when public abuse of the private sector can be restrained. This prediction suggests that regulation – relative to doing nothing – is a more attractive option in richer countries, where the checks on the government are stronger. In contrast, regulation is a particularly poor idea in undemocratic countries and in countries with extremely powerful executives, where the risks of abuse are the greatest.

Finally, in some situations, nothing short of government ownership can address the problem of disorder. If monopolies cannot be restrained through regulation, if quality cannot be assured except with full state control, if public safety is jeopardised – then one can make a case for state ownership. For example, Hart *et al.* (1997) argue that prisons might be properly publicly owned because the risk that private jailers mistreat inmates, who after all have few legal rights and cannot count on the market or even on regulation to protect them, is too high. Likewise, the military and the police tend to be state-controlled because the risk of disorder from private control is unacceptable.

Although in some instances the case for government ownership as a means of dealing with disorder is compelling, state ownership has the obvious problems of public abuse and dictatorship. Because the government uses its control to pursue political ends, the performance record of state enterprises around the world has been dismal, and the benefits of privatisation large (La Porta and Lopez-de-Silanes, 1999; La Porta *et al.*, 2002; Megginson and Netter, 2001; Djankov and Murrell, 2002). The dramatic failure of state socialism as an economic system is only the most remarkable illustration of the problems of dictatorship taken to an extreme, where all economic problems are solved to maintain political control of the communist party (Kornai, 1992). Although an efficiency case for state ownership as a means of controlling disorder can be made, the range of activities where this case is compelling is modest.

This discussion completes a brief overview of alternative strategies of enforcement of socially desirable conduct. I listed some of the ingredients of the efficient choice. In the next section, I try to compare these implications to regulatory practice.

#### 4. Regulatory Practice

In my presentation of the enforcement theory, I have focused on the costs and benefits of alternative means of social control of business, and thereby pointed to what might be, under different circumstances, the efficient choice. This focus on efficient institutional choices has considerable descriptive and prescriptive power. Moreover, even efficient institutional arrangements may exhibit significant levels of both disorder and dictatorship. As Coase (1960) argued long ago, the fact that a society is doing the best it can with its institutional resources does not mean that all transaction costs are eliminated.

Still, in thinking about actual institutional choices, it is crucial to recognise that not all we see is efficient. The first source on inefficiency is the bread-and-butter of public choice theory (Buchanan and Tullock, 1962), namely the idea that politicians, once in power, make economic policies and institutional choices to keep themselves in power and, to the extent possible, to become rich. These theories generally point to a tendency toward excessive dictatorship. We expect to see excessive centralisation,

regulation, state ownership and so on even conditional on the trade-off a country faces. Even in securities markets, we might see an excessive tendency toward state control of stock exchanges and banks, and state restrictions on competition. The curse of state socialism during the twentieth century illustrates this political tendency toward dictatorship.

The second source of possible inefficiency of institutional choice is colonial transplantation (La Porta *et al.*, 1997, 1998). The legal and regulatory regimes of most countries are not indigenous, but rather shaped by their colonial heritage. When the English, the French, the Spaniards, the Dutch, the Germans, and the Portuguese colonised much of the world (including the USA), they brought with them some of their institutions. As it turns out, there is systematic variation among these institutions of origin countries, shaped by their history over the last millennium (Glaeser and Shleifer, 2002). England developed a common law tradition, characterised by the independent judges and juries, relatively lower importance of statutory laws, and the preference for private litigation as a means of addressing social problems. France, in contrast, following the Romans, developed a civil law tradition, characterised by state-employed judges, great importance of legal and procedural codes, and a preference for state regulation over private litigation. Germany developed its own civil law tradition, also based in Roman law. Finally, and crucially for the twentieth century, the USSR developed its own system of socialist law.

Napoleon exported the French legal system through his conquests to Spain, Portugal, and Holland, and through his and their own colonial conquests, it was transplanted to all of Latin America, large parts of Europe, North and West Africa, parts of the Caribbean, and parts of Asia. The common law tradition was transplanted by England to the USA, Canada, Australia, New Zealand, East Africa, large parts of Asia (including India), and parts of the Caribbean. The German legal system was voluntarily adopted in Japan, and through it Japan influenced the legal systems of Korea, Taiwan, and China. Finally, the USSR transplanted its legal system to socialist countries. These channels of transplantation suggest that there might be systematic variation in property rights institutions among countries that is not a consequence either of the pressures toward efficiency or of domestic political choice.

In the last several years, my collaborators and I completed several studies of state ownership and regulation around the world. The areas we covered are the regulation of entry by new firms, the regulation of judicial procedures in courts, and the regulation of labour markets (Djankov *et al.*, 2002, 2003a; Botero *et al.*, 2004). Although the data for each of these studies were collected using different procedures covering somewhat different samples of countries, some systematic results emerge from the analysis. Countries have pronounced styles of social control of business intimately related to the origin of their laws. In all three areas of regulation – entry, courts, and labour – socialist and French legal origin countries regulate activity more heavily than do the common law countries. On average, the very same countries that regulate entry also regulate courts and labour markets, and these correlations are at least in part driven by legal origin. Moreover, the same rankings appear in the measures of state ownership. Socialist and French legal origin countries have higher levels of government ownership of banks (La Porta *et al.*, 2002) and a greater role of state-owned enterprises in the economy (La Porta *et al.*, 1999) than do the common law countries. This evidence suggests that colonial transplantation, rather than local conditions, exerts a profound influence on national modes of social control of business, including both state ownership and regulation.

This finding suggests that the observed institutional choices may well be inefficient. A legal and regulatory system perfectly suitable for France might yield inefficiently high levels of regulation and state ownership when transplanted to countries with fewer checks on the government. Likewise, a system of independent courts that works in Australia or the USA might fail in Malaysia or Zimbabwe. Indeed, the evidence on the consequences of regulation shows that it is often excessive, especially in poor countries. Higher levels of regulation of entry are associated with larger unofficial economies and no measurable benefits for the quality of products (Djankov *et al.*, 2002). Higher levels of regulation of judicial procedures yield no benefits in simple disputes. In contrast, more regulated legal systems appear to cost more and to produce higher delay, without offsetting benefits in terms of perceived justice (Djankov *et al.*, 2003a). Higher levels of labour regulation are associated with larger unofficial economies, higher unemployment, and lower labour force participation (Botero *et al.*, 2004).

The evidence on the importance of legal origin points to some tangible ways in which the existing institutions fall short of their potential, as well as to some possible directions of reform. In particular, the evidence suggests that deregulation – particularly in the areas such as entry and labour markets where the forces of competition are potentially effective – is a high level priority for poor countries. In these countries, regulation is nearly universally associated with poor outcomes because public officials abuse their power. Deregulation is likely to diminish dictatorship without a significant increase in disorder.

But the evidence also points to some difficulties of reform. One cannot assume that, in civil law countries, general jurisdiction courts could efficiently resolve disputes – these courts are too cumbersome to meet this goal. The most attractive areas for deregulation in developing economies are those where competition and market discipline, rather than courts, can assure socially desirable outcomes and control disorder. In contrast, in the developed countries, courts – especially specialised courts – are becoming an increasingly attractive alternative to regulation.

## 5. Conclusion

The framework presented here allows for a comparative analysis of institutions from the perspective of the trade-off between dictatorship and disorder. This trade-off looks different for different countries, and even for different activities within a country. This trade-off can help organise the analysis of efficient institutional choice, which recognises both the needs of a particular environment, and the constraints imposed by a country's political structure and institutional tradition. I apply this framework to the example of regulation of securities markets, and argue that private enforcement of public rules may emerge as an efficient strategy of social control of these markets. Some empirical evidence assembled by La Porta *et al.* (2004) is broadly consistent with this point of view. With more data about particular countries and activities, one can use the framework described here to examine alternative strategies of social control of business.

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