THE CASE FOR MARKET-BASED REGULATION Gerald P. O'Driscoll Jr. and Lee Hoskins

In this article, we reconsider the rationale for government regulation of markets. We begin by identifying markets as governed not only by prices but also by evolved institutions, rules, and standards. We then analyze how this complex order regulates human behavior, discuss the case for adding a layer of government regulation to the market's own regulatory system, and present a number of case studies to clarify the issues.

Our focus is not on the familiar public choice criticism of government regulation—namely, that regulation is more about the pursuit of economic rents than protecting the so-called public interest. While that criticism is correct and we make reference to it where appropriate, the thrust of our argument is that market self-regulation is often superior to government regulation, which frequently is a solution in search of a problem.

Two Types of Regulation: Market vs. Government

In a system of private property rights and competitive markets, prices regulate the behavior of consumers and producers so as to allocate resources to their highest-valued use. The price system works within a framework of institutions. A market economy evolves institutions, rules, and standards that further regulate the behavior of economic agents.

The reality of how markets operate contrasts sharply with textbook neoclassical theory in which anonymous buyers and sellers meet for an instant to exchange homogeneous goods at preordained equilibrium

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prices. The idea that prices alone allocate resources in a market economy is at best a limiting case and at worst a straw man.

Institutions and prices evolve through a similar process to jointly coordinate behavior. Part of that process involves the development of market-based regulation. There is no magic to the evolutionary process, any more than there is mystery in the rise of oil prices to reflect increased scarcity of that commodity.

The textbook justification for government intervention is the correction of an apparent market failure. It is now widely recognized that market failure, such as pollution, results from incompletely specified property rights. In the case of air pollution, for example, individuals do not have an enforceable and tradable right in air quality.¹ Merely postulating weak or absent property rights, however, begs the question. That procedure falls under Hayek's dictum that "before we can explain why people commit mistakes, we must first explain why they should ever be right" (Hayek [1937] 1948: 34). In O'Driscoll and Hoskins (2003), we analyzed the process by which property rights emerge. We briefly reprise that argument in the next section.

It is widely recognized that regulatory intervention attenuates private property rights. Governments can theoretically define property rights where they do not exist, but public choice theory would predict that the process would end up in rent seeking rather than law making.² In any case, rather then creating property rights in the face of apparent externalities, governments typically turn to regulating economic activity. That is the topic of this article.

Government regulation alters the allocation of resources and, indeed, is designed to accomplish just that reallocation. Along with attenuating property rights, government regulation can also undermine the complex system of market-based institutions, rules, and standards that enhance and strengthen property rights. That system, or institutional framework, is as an integral part of a market economy as is the price mechanism.

All economies have elements of both self-regulation and government regulation. Government regulation reinforces, supplants, or undermines market-based regulation. Accordingly, government intervention is efficacious, redundant, or counterproductive. We address

¹This article does not focus on the well-known example of pollution, but on a class of information problems thought to provide a basis for government regulation. On environmental issues generally, see Anderson and Leal (2001).

 $^{^2{\}rm Hayek}$ (1973) distinguished between law and legislation. Law evolves and protects general interests. Legislation is manmade and is prone to promoting special interests or rent seeking.

classic textbook cases of public goods and externalities that suggest the case for "good" government regulation. We also present a number of cases in which bad government regulation suppresses the selfregulating mechanisms in a market economy.

Regulation is necessary for a well-functioning market economy, but that insight provides no necessary role for government intervention. Some additional factor must be adduced to justify government intervention because markets evolve self-regulatory mechanisms.

The Evolution of Institutions

Kenneth Arrow (1968: 376) identified the "most important intellectual contribution" of economics as "the notion that through the workings of an entire system effects may be very different from, and even opposed to, intentions." Arrow echoed Adam Smith's invisiblehand reasoning.

Economists, including Marx, have generally accepted invisiblehand reasoning for economic phenomena. They have not consistently extended the evolutionary mode of reasoning to fundamental institutions such as law. For contrast, compare Carl Menger's ([1883] 1963: 146) formulation of the scope of social science: "How can it be that institutions which serve the common welfare and are extremely significant for its development come into being without a common will directed toward establishing them?"

What kind of institutions did Menger have in mind? On the same page, he provided some examples: "Language, religion, law, even the state itself, and, to mention a few economic social phenomena, the phenomena of markets, of competition, of money, and numerous other social structures." Menger suggested that a broad array of social phenomena be subjected to invisible-hand reasoning. There were no institutional "givens" in Menger's analysis.

Friedrich Hayek was the most Mengerian of 20th century economists, and he often spoke of "the results of human action but not of human design" (Hayek [1967] 1969: 96–105). He advanced a research agenda that analyzed language, law, and money as evolved social structures and not products of conscious design. Specific legislative enactments were products of intentional human activity, but not the legal system or rule of law itself (Hayek 1973).

Even Hayek, however, viewed the regulation of economic activity as the product of legislation or human design. He observed that "a free system does not exclude on principle" regulation of economic activity, including regulation of production techniques and 'factory legislation'" (Hayek [1960] 1972: 224–25). He advocated a cost-benefit approach to evaluating government regulations. While he was dubious about all such activity, he did not believe that it could be excluded on principle.

Nor have many other economists adopted an invisible-hand approach to the emergence of regulation. Blundell and Robinson (2000) are a conspicuous counterexample, as is Armen Alchian (1950, 1977).

In his examination of economic success and uncertainty, Alchian shows how market-based rules evolve in an economic system based on profit-seeking behavior. The imitation of successful enterprises leads to rough and ready rules of behavior. "What would otherwise appear to be merely customary 'orthodox,' nonrational rules of behavior turns out to be codified imitations of observed success, e.g., 'conventional' markup, price 'followship,' 'orthodox' accounting and operating ratios 'proper' advertising policy, etc" (Alchian 1977: 29). These rules of behavior regulate economic behavior.

According to Alchian, people are motivated to copy or imitate a pattern of actions associated with past success because of uncertainty about the appropriate decisionmaking process as well as the variability of the environment in which they operate. In addition, people do not know if a trial and error process will lead to the desired outcome and they fear failure. These are some of the motivations for people to adopt imitative rules of behavior (Alchian 1977: 29–30).

In a seminal article, Bruce Benson (1989: 165) argued that "modern commercial law is, in fact, largely made by the merchant community despite government efforts to take over provision of such law" (Benson 1989: 165). He showed how historically *lex mercatoria*, "the Law Merchant," evolved within the merchant community. Based on Roman commercial law, medieval merchant law evolved as commercial practices evolved. It was customary law, that is, a set of rules reflecting business practice (Benson 1989: 168–70).

Benson (1989: 171) debunked the widespread belief that the state must be the monopoly source of law by demonstrating it to be historically untrue. "Such significant economies of standardization exist in commercial law that it took the voluntarily produced and adjudicated Law Merchant to overcome the limitations of political boundaries and localized protectionism."

According to Benson, "The Law Merchant 'governed' without the coercive power of a state." Merchants had their own courts, which functioned with speed and efficacy. The system was quick to adapt to changing business practice. To anticipate an important point of this article, the ultimate threat of that voluntary legal system was loss of reputation and business (Benson 1989: 172–75).

Historians of law have long recognized that law and property, more

broadly, were evolved rather than consciously created. In *Property* and *Freedom*, historian Richard Pipes provides an overview of the evolution of the institutions of property from primitive times to the emergence of the state. He concluded that "in most countries property took the form of possession, claims to which rested not on documented legal title but on prolonged tenure, which custom acknowledged as proof of ownership" (Pipes 1999: 65). The critical issue for our discussion is that property and customary law preceded the state.

Hernando de Soto came to similar conclusions in his study of property and wealth in developing countries. Titling property is often extremely costly and time consuming in these countries. He concluded that "the only way to find the extralegal social contract on property in a particular area is by contacting those who live and work by it" (De Soto 2000: 182). Possession of property precedes formal (i.e., legally titled) ownership, and customary law precedes governmental law.

Formal, legal property rights are not then a precondition for trade and commerce to emerge. One might say that trade stimulates the evolution of property and commercial law by revealing institutional "gaps." As amplified below, law follows practice. Property rights are more fully specified as legal conflicts arising out of actual trade result in clarification of those rights. Legislators may codify those results, but codification is the final not the first stage in the process.

The market evolves and the state adopts commercial law and property. It is a straightforward extension of the invisible-hand explanation for markets and economic phenomena to law and society. If perhaps a radical leap for some, it is nonetheless a well-established tradition drawing on economics, history, law, and sociology. Not so is the further extension of evolutionary reasoning to regulation.

Self-Regulation

Self-regulation does not refer to so-called self-regulating industry or professional bodies that frequently protect producers against consumers. Rather, it refers to evolved orders, rules, and institutions by which the market regulates behavior.

Why do people typically not lie, cheat, or steal when no one is looking? By construction, one cannot invoke the sanctions of the formal legal system. No one is watching. The most cursory analysis of social behavior would conclude that individuals are more lawful than could be explained by fear of detection and sanction.

Narrow the focus to exchange phenomena. Why do businessmen not routinely cheat their customers? Most economic transactions are too small to involve the threat of criminal or even civil sanctions; the transaction costs are too high (Tullock 1985: 25).

Each single transaction between seller and buyer takes on the characteristics of a prisoners' dilemma. Each party would gain the most by cheating, so the likely outcome is no transaction. Markets avoid this problem by structuring transactions so as to avoid one-shot prisoners' dilemmas (Klein 1997b: 128).

The problem is how to prevent opportunistic behavior from undermining mutually beneficial social outcomes. It is, of course, the Smithian problem revisited. What is the invisible-hand mechanism that restrains opportunistic behavior? Why don't real-world markets conform to the markets of textbook economic theory?

Many transactions involve repeated interactions between a buyer and seller. As Tullock (1985: 28) observed of such situations, "If you choose the noncooperative solution, you will find yourself with no one to noncooperate with." Tullock identifies the ability to select one's partner as a sufficient condition for avoiding the noncooperative outcome: "The prisoners' dilemma vanishes because the individual players have a strong desire to establish credibility so that they can play in future games" (p. 23). Cooperators choose to play with cooperators.

Though he does not emphasize the point, the value of reputation is the critical factor in Tullock's story. As Daniel Klein (1997b: 105) notes, "Our power to damage a promisor's reputation or to withdraw from dealings serves as a hostage that we hold against his promises" (Klein 1997b:105). Likewise, Hayek (1946: 97) has argued that "competition is in a large measure competition for reputation or good will."

Reputation, or the fear of its loss, constrains opportunistic behavior and exemplifies how markets self-regulate. In addition to religious or ethical constraints, people do not lie, cheat, or steal because markets make such behavior very costly. There must, of course, be a property right of some type in one's reputation. In many cases, it will be sufficient that you cannot steal my good name.

Reputation is the present discounted value of the gains from successive promise keeping. Promise keeping constitutes an investment with payoffs in future dealings. Reneging on a future promise puts reputation and future income at risk (Greif 1989: 138–39).

For a promisor to contemplate reneging, it is not simply a case of comparing the expected capital loss of reputation against the gain from a one-shot cheating of a customer. He faces an even higher cost of rebuilding his reputation once lost.³ In Tullock's (1985: 23)

³Klein and Leffler (1981) model the circumstances in which a promisor will renege and

formulation, once the promisor has defected he faces the difficulty of securing new partners for all future transactions.

What about the situation of infrequent dealing that can take on the characteristics of the one-shot prisoners' dilemma? In this case, there is an inherent problem of trust. Each trust problem, however, also constitutes a profit opportunity (Klein 1997a: 6). The belief that markets typically fail in such situations amounts to postulating that entrepreneurs leave money on the table.

Two important ways to avoid the need for trust are the use of increments and hostages (Klein (1997b: 102). Advertisements, displays, free samples, and tryout periods are various ways of "incrementalizing" a trading relationship. A free meal and tour of a social club, introductory free rounds of golf at a golf club, and a test drive of new car are all ways of avoiding the Akerlof (1970) lemon problem. By breaking down a complex relationship into a series of subtransactions, the seller engages in trust-building with the buyer.

Markets are also replete with hostage-taking. Warranties and guarantees give buyers recourse against sellers who do not live up to their promise of a high quality product. The ultimate sanction is the loss of reputation or brand name. A brand name transforms what would be many one-shot dealings in repeated dealings (Klein 1997b: 122). Just as with price signals, brand names economize on information. A cancer patient may have only one transaction with Sloan Kettering Hospital, but the hospital's brand name is the product of dealings with many other individuals. And, of course, the patient may have had repeated dealings with his physician, who recommends the hospital to him. The patient is hiring a trusted agent to make an evaluation.⁴

Sometimes the seller hires independent experts to certify quality. Underwriters' Laboratories (UL) is hired to provide a seal of approval on products (Brearly 1923). Likewise, Dun & Bradstreet (D&B) provides dependable credit information on thousands of businesses large and small (Newman 1956). With both UL and D&B, standards applied have evolved through a trial and error process and have been institutionalized in those organizations. Moreover, reputation stands behind the evaluations.

suffer the loss of his brand name capital. It should be noted that they adopt Akerlof's model, which makes reneging appear more plausible. "In Akerlof's lemons model you commit to full purchase before learning the slightest thing about the item's true value" (Klein 1997b: 102).

⁴Individuals operating with other-regarding motivation, or nonprofits, can also play the role of trusted agent. Both groups are at work offering websites to assist consumers in comparison shopping among mortgage providers (see Hagerty and Simon 2006).

In all the examples of market self-regulation we have examined, sellers overcome transactional problems of trust due to asymmetric information. Daniel Klein's "incrementalizing" transactions permits sellers to supply needed information about product quality to the buyer. By hiring trusted agents, sellers solve the problem of asymmetric information in another way. In nearly all market transactions, reputations are at stake.

Avner Greif (1989) examined a historical example of a group of 11th century Mediterranean traders who depended on trust and reputation to carry out their far-flung trade. They were the Maghribi traders, Jews who lived in North Africa under the rule of the Fatimid caliphate. Greif confirmed that fear of loss of reputation ensured honest dealings among themselves. And it did so despite manifest problems of asymmetric information caused by the geographic separation of merchant principals and their agents.

Grief (1989: 156) also examined the issue of what market mechanism prevents cheating in the "last period" (best thought of as the end of life). For the Maghribi traders, he concluded that "sons were their fathers' "insurance policy." Relatives were held responsible for one's business dealings.

One class of government regulation intends to sanction opportunistic behavior by sellers to the detriment of buyers. That is precisely what trusted agents, hostage-taking, and reputation accomplish in markets. Another class of government regulations aims at protecting sellers by limiting market competition.

Money, Banking, and Regulation

Money and banking provide several examples of market selfregulation as well as the costs of government regulation.

Regulating the Money Supply

During the periods when money and banking were relatively free from government regulation, market-based practices developed that promoted the extension of credit and enhanced trade. From 1716 to 1845 no central bank or government oversight of money and banking existed in Scotland, and from 1836 to 1863 only state regulation of money and banking practices existed in the United States. The private money systems that developed had to find ways to attract depositors and gain acceptance for currencies issued, control note issues, limit bank runs to insolvent banks, and ensure sound lending practices (England 1988; Rockoff 1975; Smith [1936] 1990; Timberlake 1993; Trivoli 1979; White 1984, 1989).

In Scotland, banks competed for customers and note holders on the basis of safety by offering unlimited stockholder liability in the case of failure. In addition, Scottish bankers posted with town clerks personal guarantees of note payment in case of failure. In the United States, state banking authorities held securities representing paid-in capital stock to back banknotes, while Massachusetts also offered unlimited stockholder liability.

Note issue was monitored by brokers and regular publications about bank note discounts were readily available. Redemption in gold or silver was also a curb on note issue. Brokers played an important role by refusing to accept notes of badly managed banks or threatening to redeem them unless the banks improved their collateral.

One of the most important market-based regulatory devices was the clearinghouse association. Clearinghouse associations performed not only regulatory or supervisory functions but also what we now call central-banking functions. Clearinghouses in the United States monitored the performance of member banks, and the stronger members forced prudential standards on weaker members. One of the most successful clearinghouses, the Suffolk System, limited entry to banks with sound lending practices.

Although the free banking period ended during the Civil War, one of its most important institutions—the clearinghouse associations continued on through the end of the century. During times of financial panic or illiquidity in the banking system, clearinghouses provided temporary currency, much like a central bank would do today. The results were so successful in stopping the collapse of the fractional reserve system that one scholar questions, "Why was a government central bank superimposed on the banking industry when the clearinghouse system had proven so effective?" (Timberlake 1998: 211).

A number of reasons were put forth, ranging from the illegality of clearinghouse currency to the desires of some for a governmentissued currency. The important point is that the creation of the Federal Reserve "introduced a discretionary political element into monetary decisionmaking and thereby divorced the authority for determining the system's behavior from those who had a self-interest in maintaining its integrity" (Timberlake 1993: 212). Market institutions, rules, and practices were replaced by government institutions and government regulations. This experience echos Hayek's (1977: 103) statement that "money has almost from its first appearance been so shamelessly abused by governments that it has become the prime source of disturbance of all self-ordering processes in the extended order of human cooperation."

The point is not whether we should go back to free banking today, although there is some interest in the subject (White 1989: 367–91), but rather the ability of the market to successfully self-regulate in the complex arena of money and banking.

Safety-and-soundness practices based on market incentives and clearinghouse rules have been replaced by government regulations, central banks, and deposit insurance. In particular, the creation of the Federal Reserve System was intended to overcome "failings" of the banking system. Instead, the central bank presided over the worst depression in U.S. history (see Friedman and Schwartz 1963). Market-driven mechanisms and constraints had been displaced and the Fed failed in its most basic mission of supplying liquidity in a crisis.⁵

The collapse of the banking system during the Great Depression in the United States resulted in the Federal government assuming the responsibility for the integrity of the financial system. For banks and savings and loan associations alike, capital-to-asset ratios declined, depositor discipline disappeared, and bank managers sought ways to avoid regulations.

Some 50 years after the Great Depression, the financial system began to implode. From 1980 to 1991 some 1,400 commercial banks and 1,100 savings and loan associations were declared insolvent by regulators, costing the insurance agencies some \$300 billion, with a large portion of the loss being picked up by taxpayers (Kaufman and Benston 1993: 21).

In 1991, Congress passed the Federal Deposit Insurance Corporation Improvement Act (P.L. 102–242), further expanding the regulatory approach to banking. Those who support the expanded government regulation entailed in FDICIA displayed greater faith in "their regulations" being more effective than the mountain of regulations already on the books.

This faith is not supported by the historical record. Loopholes will appear and regulators will forebear (Hoskins 1993: 149). Regulators lack the information needed to offset the moral hazard created by removing market discipline from banking (Wallison 2006). In addition, government regulators have no property rights at stake when

 $^{^{5}}$ In *Lombard Street*, Walter Bagehot (1873) argued that the best a central bank could do was to mimic the operation of an unregulated banking system. The Fed proved unable even to approximate that.

they fail to act. Nevertheless, their reputations are at stake, which may serve to constrain their behavior. $^{\rm 6}$

Consumer Protection

Legal ceilings on interest rates are another example of government regulation replacing market discipline. The Banking Acts of 1933 and 1935 stopped the practice of banks paying interest on demand deposits and allowed the Fed to set ceiling rates on time and savings deposits (Regulation Q). The rationale was to limit excessive bank competition and prevent bank failures.

In the 1960s, with inflation rising and open-market interest rates increasing along with it, the ceiling became binding and banks experienced runoffs in deposits. Not only was the housing market negatively impacted when interest-rate ceilings were binding, but small savers also lost several billions of dollars in interest earnings (Gilbert 1986: 34–35). Today few believe that excessive competition has anything to do with bank failures. Banks innovated around Regulation Q ceilings, and money market mutual funds grew rapidly by offering savers market rates. Regulation Q ceilings were phased out by 1986, another failed and costly government regulation.

Interest rate ceilings are imposed on borrowers by state governments. Rather than being protected by such ceilings, however, borrowers are systematically harmed to the extent the ceilings are effective. Lenders that make high-risk loans charge high interest rates in order to make a positive return on average after defaults. The exchange between borrower and lender is voluntary and self-regulating. Borrowers who default will have a tough time obtaining credit in the future, and lenders who fail to make a positive return will be eliminated from the market.

When interest rate ceilings are in place, high-risk customers will be denied a loan at institutions where the ceilings apply. Other, often higher cost lenders arise to meet the demands of these customers. Pawn shops engage in a form of purchase-repurchase agreements that get around interest rate ceilings. Sale-lease back arrangements and paycheck loans are popular devices to avoid interest rate ceilings. Where no such avoidance vehicles are available, some people resort to borrowing from loan sharks who specialize in very high-risk lending and have unusual methods of collection. The poor are usually the high-risk borrowers and they suffer the most from interest rate ceilings.

 $^{^{6}\}mathrm{Ben}$ Zycher pointed out to us that regulators also have reputations and multi-period careers.

Corporate Governance

Today, government's regulatory emphasis is on corporate financial reporting. Before the Great Depression, a small number of investment banking partnerships played the major role in informing the public about corporate performance. The investment bankers sat on corporate boards, policing management practices and selecting managers. They also put their seal of approval on corporate bonds that they marketed for these corporations, informing and monitoring performance for customers who bought stock and bonds (De Long 1991).

With the change in the banking laws in the 1930s, investment bankers were prevented from performing this role. Instead of relying on market-based regulation, more government regulations requiring reporting of corporate financial activities were installed.

The recent bout of corporate scandals resulted in even more onerous reporting requirements under the Sarbanes-Oxley Act of 2002 (P.L. 107–204). Some companies have already changed their charters from public to private and more are exploring the issue because of this legislation. One researcher estimates that the legislation caused shareholders in publicly traded companies to lose \$1.4 trillion (Zhang 2005). In addition, Sarbanes-Oxley increased the cost of issuing shares in the United States and, as a result, a huge volume of share issuing by foreign companies has switched to London and Luxembourg from U.S. exchanges (Karmin and Lucchetti 2006: C1).

One of the primary functions of markets is to provide information, and do so through a variety of means including brand names. The value of brand names in drugs has been undercut by the Food and Drug Administration. Its certification deludes consumers into believing all drugs are safe, sometimes to their great harm. Government reporting requirements also cause investors to lower their guard.

Scandals will occur whether reporting is required or not. Why not let corporations voluntarily submit financial reports? If those that chose to do so saw their stock price rise relative to those that offered no financial reports, then there would be a strong incentive for corporations to compete for the best financial reporting.

In this light, we would identify Enron as exemplifying the failure of government regulation. Regulations that had been in force as far back as the 1930s did nothing to uncover the alleged wrongdoing. That was accomplished by the private sector, notably some short-sellers and newspaper reporters.⁷

⁷Accountants tell us that the Security and Exchange Commission's reliance on accounting

Shareholders can sell if they are disturbed by CEO pay, perks, and performance. Yet, one of the major forces in curbing and correcting corporate mismanagement—the takeover entrepreneur—is trammeled by a host of government regulations. Poison pills, staggered boards, and the Williams Act (requiring disclosure of large stock accumulation by an investor) raise the cost of a takeover to replace management (*Wall Street Journal* 2006: A8). In addition, states compete for corporate charters by offering poison-pill defenses that can require a hostile takeover effort to acquire as much as 80 percent of the outstanding shares.

Eliminating government regulations that thwart changes in corporate control would be far more productive than governmentmandated reporting requirements in putting resources to their highest valued use. Government reporting requirements will never be effective substitutes for market-based rules, practices, and institutions. Government regulations do not evolve, as market-based rules do, when changes in economic activity occur.

Self-Ordering Market Rules vs. Government Regulation

Market-based rules are a function of private property rights and profit-seeking behavior. They arise as individuals use and exchange rights to resources. Some will imitate successful enterprises, while others will innovate. Successful innovation will be imitated. This process leads to rules of thumb and standard practices that are tested and modified over time and become an integral part of the economic and legal system.⁸

As Alchian and Allen (1972: 141) put it: "The higher market values attaching to goods with strong ownership rights spurs individuals to seek laws that would strengthen private property rights." A common example is the practice of homeowners seeking laws or regulations that limit actions by others that might harm the value of their property (for example, burning and noise restrictions, leash laws, and notrespassing laws). Some developers also attach covenants aimed at keeping home values from being negatively impacted by actions of a neighbor. These covenants are enforced by the courts.

rules rather than accounting *principles* has contributed significantly to Enron-like scandals. No matter the number or complexity of accounting rules, someone can always find a way to circumvent the rules without violating them. Not so with a principles-based system, which is what used to govern financial reporting.

⁸On rules of thumb, see O'Driscoll and Rizzo (1985: 69).

High transaction and information costs lower the market value of some goods. Owners and specialists see profit opportunities in lowering these costs to the point where the added expense of such mitigation just equals the added market value to resource owners. (The Internet has had a huge impact on lowering both information and transactions costs.)

The existence of externalities (the imposition of costs or benefits by property users on third parties) offers profitable opportunities for specialists in transferring property rights and policing them. The existence of externalities is a necessary condition for government regulation but not a sufficient one. Virtually all goods and behavior have external effects (Alchian and Allen 1972: 243). The issue is whether there are externalities at the margin. And, of course, the "externality" or "market failure" argument is often invoked to provide intellectual cover for rent seekers (Blundell and Robinson 2000: 5–10).

Fishing presents a classic problem of resource allocation: "Fish are valuable but no one owns them" (Runolfsson 1997: 57). The only way a fisherman is to acquire a property right in fish is by catching them. That leads to overfishing, depletion of the stock, and long-run decline in income from fishing. Government regulation has typically been the response. Yet, as Runolfsson notes, "regulatory regimes largely have failed to stem the decline of fisheries because they do not alter the fundamental incentives that lead to overfishing."

Runolfsson identifies 10 countries that have experimented with management of fisheries by establishing property rights. New Zealand and Iceland have employed the technique more extensively than other countries and have had the best results. "The exclusive right to harvest the resource guaranteed by the ITQ [Individual Transferable Quotas] system has impelled New Zealand fishermen to treat fisheries as an asset." Aggregate catches have increased and "most resource stocks seem to be stable" (Runolfsson 1997: 60).

Iceland has been second only to New Zealand in its use or property-like regimes. An ITQ system was introduced due to declining stocks of both herring and cod. Catches of herring have increased and stocks have returned to levels of the 1950s. There was less success with cod because quotas were initially set too high. The government adjusted them in response to pressure from quota owners who wanted to preserve the value of their property. Now catches of cod have risen (Runolfsson 1997: 60–61).

Runolfsson concludes that "enclosure and privatization of ocean resources could be comparable to the land enclosure movement in British history or the fencing of western range land in American history" (p. 61). In each case, movement to private property rights provided incentives to innovation in technology and practice. It is very much an Alchian-like process.

There are high costs associated with government regulation and alteration of property rights. Some of these costs are the destruction of the evolving market-based efforts, powered by profit opportunities, to internalize externalities. Another cost is the expense associated with innovating around a new regulation. The historical record of government regulation argues for a presumption that market processes will contain externalities better than government regulation, rather than the other way around.

Economists also need to reconsider the rationale of public goods as a case for government intervention. Price may not serve its normal rationing function with pure public goods, but it remains important for *producing* public goods. If a property right in a public good can be enforced, the good can be privately produced (Demsetz 1964; Alchian and Allen 1972: 242).

Information is a classic public good. Many, if not most of our examples have involved the competitive production of information for profit. In examples such as UL and D&B, users of the information consume the marginal increment at zero cost. Producers of the product being certified pay the cost.

Another classic example of a public good is the creation of a standard. It is a huge and complex topic worthy of its own study. The size of the paper (8.5 in. x 11 in.) on which a paper is typed; the standard measures of length, whether foot, mile, or nautical mile (one knot); standardized time zones; the current of electricity (AC or DC) and its cycle; the monetary unit; software standards; and the very language in which we convey our thoughts are all examples of spontaneously evolved standards. Sometimes the government adopts or mandates them, and sometimes it does not. The government almost never invents standards, however. Not in money, or time, or elsewhere.

The question of whether government should mandate a standard comes down to the efficacy of substituting coercion for voluntary action. Coercion may bring uniformity of product or conduct, but only at the expense of innovation and flexibility. Merchant law suffered when the hand of the state took it over: "Many of the desirable characteristics of the Law Merchant in England had been lost by the nineteenth century, including its universal character, its flexibility and dynamic ability to grow, its informality and speed, and its reliance on commercial custom and practice" (Benson 1989: 178).

Markets excel in adapting to changing circumstances, while legislation and government regulation are notoriously rigid. That is

perhaps the strongest case for market self-regulation over government-mandated regulation.

Conclusion

Substituting government regulation of banking and finance for market self-regulation imposes significant costs on the industry to the detriment of stockholders, consumers, and taxpayers—without eliminating the problems. Most researchers now recognize that much of government financial regulation was the product of rent-seeking behavior (Kroszner and Rajan 1994). There is no reason to believe that future regulation will be any different.

It seems to us that the burden of proof is on those advocating government over market regulation. That requires, first, a theory of regulation that does not rule out market solutions by assumption. Information problems are solved daily by markets. And the existence of externalities and public goods may be a necessary—but not sufficient—condition for government regulation.

Second, advocates of intervention in specific markets should make every effort to do a serious study of the real-world market responses to perceived market inefficiencies. The "market failure" to provide lighthouses was a textbook case for government intervention until Ronald Coase (1974) discovered that lighthouses were privately provided.

Likewise, the alleged externalities involved in beekeeping and the operation of apple orchards became mythology in economics. Steven Cheung (1973) demythologized the lore of beekeeping by discovering and analyzing the contractual arrangements between farmers and beekeepers, which effectively internalized any externalities.

Third, economists should consider the inherent problem of employing coercive means to achieve desirable goals in a market economy. Government intervention attenuates property rights, supplants evolved institutions, rules, and standards, and undermines choice itself. Morality aside, curing one problem through coercion creates new problems. That argument was, of course, the gravamen of *The Road to Serfdom* (Hayek 1944).

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