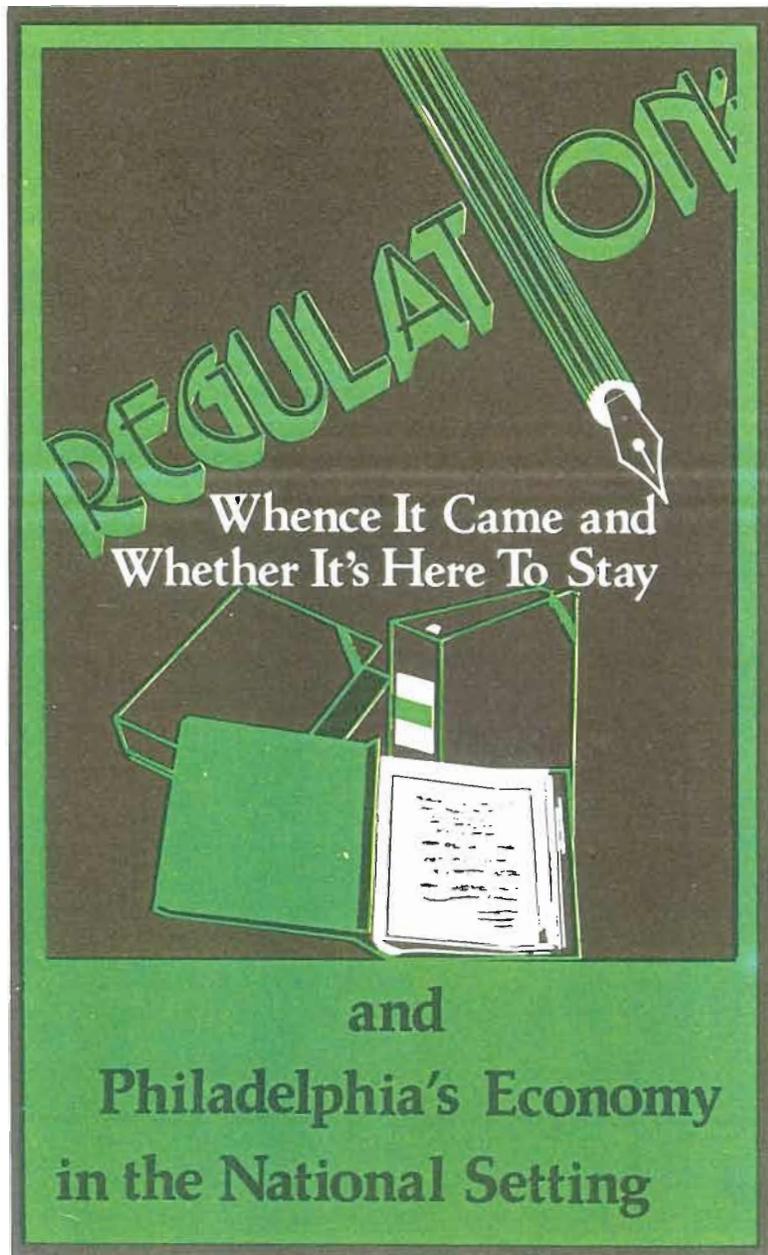


BUSINESS REVIEW

Federal Reserve Bank of Philadelphia

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REGULATION: WHENCE IT CAME AND WHETHER IT'S HERE TO STAY

Donald J. Mullineaux

. . . According to a new view, government regulation may spring from the economic interest of those who supply it and those who demand it.

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Regulation: Whence It Came and Whether It's Here To Stay

By Donald J. Mullineaux*

"We have a list, a long list, of market failures. They should be corrected if possible, and there are only two alternatives to the market; the state and prayer. It turns out that the two were merged into one." — George Stigler.

Professor Stigler's wry comment reflects an increasingly popular view in America today: that government regulates "too much" and in ways that often contribute as much to a problem as to its solution. Regulation is getting so out of favor that even that species that last jumps on a rolling bandwagon—the experts—are down on it. Witness the following: "The Brookings conference of experts left one overriding impression; most of the experts present believe that much of regulation today is in deep trouble." The crowning

piece of evidence that more people are against regulation than for it, however, is that both Presidential candidates campaigned in 1976 with promises to reduce the scope of government regulation.

Regulation continues to suffer from that most nightmarish of political diseases—bad press. Three of the last four *Economic Reports of the President* have proposed regulatory reform, and a new journal, *Regulation* (published bimonthly by the American Enterprise Institute), has been launched to enlighten the general public on a secret that economists had heretofore successfully buried in countless unintelligible articles—that present regulatory schemes often fail the cost-benefit test. Yet for all its bad publicity and its lack of broad popular support, regulation has dem-

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onstrated a knack for staying power that would strike envy in even the most entrenched politician. Indeed, the Brookings conference referred to above was held in 1971, near the beginning of a five-year period of record-high growth in the volume of government regulatory activity. Is there a resolution to the paradox of increasing regulation in the face of a growing consensus that deregulation is desirable? An answer would go a long way towards indicating whether the goal of regulatory reform is attainable.

A number of attempts have been made to explain when and how regulation of economic activity will emerge, and, by extension, why regulation has become a growth industry. The conventional view is that regulation occurs whenever the public interest demands

relief from the shortcomings of an unfettered marketplace. Recently, however, a new approach to analyzing regulation has been developed which employs the economist's well worn tools of demand and supply. Though this new economic theory about regulation has yet to be fully weighed against the evidence, it does appear to offer several insights into the paradox of increasing regulation in a world where deregulation is a no less fashionable topic than discos or disarmament.

REGULATION AS A GROWTH INDUSTRY

About 50 years ago there were 18 Federal agencies engaged in regulating private business conduct. By 1976, the number of regulating bodies had grown to 83, with 34 new

FIGURE 1
FEDERAL REGULATORY EXPENDITURES UP SHARPLY
(Fiscal Years)

Regulatory Expenditure	1974	1975	1976	1977	1978	1979	1974-1979
Consumer Safety and Health							
Millions of Dollars	1,302	1,463	1,613	1,985	2,582	2,671	
Percentage Change		12	10	23	30	3	105
Job Safety and Other Working Conditions							
Millions of Dollars	310	379	446	492	562	626	
Percentage Change		22	18	10	14	11	102
Environment and Energy							
Millions of Dollars	347	527	682	870	989	1,116	
Percentage Change		52	29	28	14	13	222
Financial Reporting and Other Financial							
Millions of Dollars	36	45	53	58	70	69	
Percentage Change		25	18	9	21	-5	92
Industry-Specific Regulation							
Millions of Dollars	245	269	270	309	340	341	
Percentage Change		10	--	14	10	--	39
Totals							
Millions of Dollars	2,240	2,683	3,064	3,714	4,543	4,823	
Percentage Change		20	14	21	22	6	115

SOURCE: Robert DeFina and Murray Weidenbaum, "The Taxpayer and Government Regulation." Center for the Study of American Business, Washington University (March 1978).

entrants into the field since 1960 alone. Over 100,000 Federal employees labored in regulatory vineyards. Further, from 1955 to 1970, the number of pages appearing annually in the *Federal Register*, where new regulations are published, increased at an annual rate of 5 percent. And from 1970 to 1975, the growth rate soared to nearly 25 percent per annum. While page growth has slowed markedly in the last two years, there doesn't appear to have been a meaningful slowdown in regulatory activity. Figures recently compiled by the Center for the Study of American Business at Washington University in St. Louis, for example, indicate that Federal expenditures on regulation increased 14 percent in 1976 and 21 percent in 1977. They also show a budgeted rise of 22 percent in 1978 (Figure 1).

The proximate cause of the surge in regulatory activity in the 1970s is easy to identify. The rising tide primarily reflects growth in social regulation rather than the old-style economic regulation. Though a clear-cut distinction is difficult to draw, social regulation typically deals with the conditions under which goods and services are produced or the physical characteristics of the goods themselves. Thus the Environmental Protection Agency sets constraints on the amount of pollution that manufacturers can emit, and the Consumer Product Safety Commission specifies minimum safety standards for potentially unsafe products. Whereas the old-style regulation focuses on certain markets and on prices in those markets, the new-style regulation extends across industries. The regulations of the Occupational Safety and Health Administration, for example, extend to every employer engaged in a business affecting commerce (Figure 2).

Unfortunately, emphasizing the tilt toward social regulation in the 1970s amounts to nothing more than telling us what's going on, rather than why it's happening. Description is no substitute for causal analysis. Recognizing this, social scientists of several stripes have addressed the task of explaining what

FIGURE 2
BULK OF REGULATION
NOW EXTENDS ACROSS INDUSTRIES
Percent Distribution of Federal
Regulatory Expenditures
(Fiscal Year 1979)

Regulatory Expenditure	Percent
Consumer Safety and Health	56
Job Safety and Other Working Conditions	13
Environment and Energy	23
Financial Reporting and Other Financial	1
Industry-Specific Regulation	7
Total	100

SOURCE: Robert DeFina and Murray Weidenbaum, "The Taxpayer and Government Regulation."

accounts for the volume of regulation in America today.

It is hard to think of any social phenomenon which can be explained by a single, unanimously accepted theory, and regulation is no exception to that rule. Several different explanations have been proposed to account for government intervention in the marketplace, including the public-interest theory and a new economic theory.¹

THE PUBLIC-INTEREST EXPLANATION

Many years ago, economists succeeded in demonstrating the remarkable result that competition will produce the highest possible level of social welfare. If each person (and every firm) tends to the business of making himself as well off as possible, then no redistribution of goods among individuals or shift in resources across producers will make any one party better off without injuring some other. For almost as long a period, it has been recognized that there are a number of instances wherein the case for competition—for unencumbered market decisions—

¹To satisfy truth-in-labeling regulations, we should note that dubbing one explanation an economic theory does not imply that all economists adhere to it. Indeed, most would no doubt subscribe to the public-interest theory, to which many economists have contributed.

breaks down. The market will fail to yield a welfare maximum, for instance, in the presence of externalities, or when technology permits a natural monopoly.

An externality results, for example, when one party's decisions have costly effects for other individuals but the market fails to provide for compensation to the injured parties. Pollution is a frequently cited example. If firms fail to reckon pollution costs in making production decisions, then a free market will yield too many high-pollution goods from society's point of view. Hence, the government may be able to improve on the market's outcome either by altering the incentive structure (by, say, introducing pollution emission taxes) or by proscribing certain kinds of behavior (by regulation).

Government interference also may be justified if efficiency considerations require that only a single firm be producing. The provision of telephone services within a local community is an oft-cited example of such a natural monopoly. But since monopolies charge higher prices and produce less output than competitive firms, government actions may be required to restrain prices as well as to limit entry in the industry. The public-interest theory of regulation states that government will intervene in markets in exactly these kinds of situations and only these. In other words, regulation is strictly a remedial activity, designed to reduce the costs associated with some market failure.

The problem with the public-interest theory is that it often fails the test of consistency with the facts. If the theory were valid, we should expect to find regulation in industries where resources are highly concentrated in a few firms and in those that generate heavy external costs or benefits. But regulation is encountered in any number of industries that satisfy neither of these criteria, such as airlines, trucking, taxi service, shipping, broadcasting, and securities trading. It is not difficult to conclude that much of the complex web of price and entry regulation we observe in the U.S., as well as the establishment of

myriad licensing, tariff, and subsidy schemes, cannot be well explained by the public-interest view. And so some economists look elsewhere for an explanation of the phenomenon of regulation.

THE NEW ECONOMIC THEORY OF REGULATION

Much to an economist's horror, the public-interest theory appears to view regulation as a free good. Any market failure generates an automatic demand for regulation which then is supplied costlessly through the political process. But neither the acquisition nor the provision of regulation-type services is free; each requires the mobilization of resources such as labor, machinery, and energy. Recognizing this, two University of Chicago economists, George Stigler and Sam Peltzman, set out to study regulation just as they would any other goods or services—by using the standard tools of demand and supply analysis (hence the label 'economic theory'). Since this approach is relatively novel, it has endured only a limited amount of testing. While the evidence to date has been favorable (see SUGGESTED READINGS at the end of this article), it is much too early to judge the ultimate validity and usefulness of this approach. The economic theory does appear equipped to explain a number of observed facts about regulation, however, that seem puzzling if one adopts the public-interest view.

The Actors in the Market for Regulation.

The formula for uncovering a market where none had previously been recognized is neither complex nor arcane: all one need look for is someone willing to buy something and one or more individuals willing to sell the same. In the market for regulation, Stigler and Peltzman contend, the something being traded is the right to tax the wealth of everyone in the nonregulated group. The tax in question rarely takes the form of an explicit cash transfer; rather it appears as an indirect benefit such as a legislated price or a

restriction on entry by new firms. The people demanding regulation are groups seeking to increase their wealth (some, perhaps, would call them interest groups); the suppliers are those who possess the power to determine the rules of the market game—elected officials and their appointed agents, the regulatory commissions. But whereas firms supply goods and services in an unswerving pursuit of profits, the economic theory contends that politicians provide regulatory benefits in an attempt to gain additional political support. And casual observation suggests that the winning bidders in this market typically are groups small in size in relation to the total body of political constituents. This means that one of the central tasks of an economic theory of regulation is to explain the numerical compactness of groups that succeed in obtaining regulatory benefits. Stigler and Peltzman believe the answer lies in the relationship of group size to the cost of using the political process.

The Demand for Regulation. There are at least two distinct reasons why groups attempting to employ the coercive powers of the state to increase their wealth are likely to be small. The first relates to the costs of organizing to obtain political favors. As the size of the group demanding regulation increases, the cost of coordinating group activity rises; but perhaps more importantly, the tougher it becomes to exclude potential beneficiaries who don't wish to bear any of the costs of soliciting regulatory benevolence (the so-called free riders). These costs take the form of financial help for individual politicians or political parties, as well as time and energy devoted to support of candidates favorably disposed to dispense regulatory largesse and opposition to less enlightened office seekers. With a large group possessing similar interests, lack of support from any one member will have little effect on the probability of obtaining regulatory benefits; and so the temptation to abandon the coalition and free-ride the road to regulatory favors

will be relatively strong. With a compact group, however, the defection of one member may mean the difference between success and failure. Hence, the prevention of free riders argues that demanders of regulation will be relatively lean-sized groups. Still another factor that supports the small-group postulate is that increasing the number of regulatory benefactors will narrow the base of losers—those who may oppose the proposed government intervention. As the per capita stakes for the nonbenefactors rise, the more likely it is that they'll become informed about the regulation's effect on their wealth and mobilize to prevent it. But if Group X seeks a policy that injures non-X only a small amount, it may not pay the latter to become aware of it and vote against the scheme.

These arguments suggest that even though a bigger group of those who benefit from regulation means more votes and hence a better chance of winning political favors, there is some point beyond which it is unwise to dilute the per capita benefits of regulation. To do so not only would invite sharp opposition to the proposed regulatory change but also would complicate greatly the problem of preventing some group members from benefiting without bearing any costs. Establishing a demand for regulation constitutes only half the story, however. Someone must be shown to be willing to supply regulation if the economic approach is going to yield fruitful results.

The Supply of Regulation: Do Producers Capture Regulators? According to the new economic theory, the ultimate suppliers of regulation are politicians operating at different levels of government. Though these individuals frequently delegate responsibility for explicit regulatory decisions to different kinds of agencies and commissions, the latter usually are directly accountable to their political progenitors. By assuming that the electorate perceives this and acts as though politicians supply regulatory-type services, Stigler and Peltzman try to explain the behav-

ior of elected officials as attempts to achieve the highest possible level of political support. Although this represents an oversimplification, political support usually is measured in terms of votes. Since there are both gainers and losers from government intervention in the marketplace, some votes will be gained and some will be lost. Politicians supply regulation so as to make the difference between votes gained and lost as large as possible—they maximize net votes gained.

Some observers have combined the notion that elected officials regulate to gain political support with the view that small groups are most likely to curry regulatory favor. Thus they conclude that regulation almost always will be slanted towards benefits for producers. The capture of regulatory benefits by producers obviously involves the dominance of a small group with a large per capita stake over a larger group (consumers) with more diffused interests. It turns out, however, that the economic theory of regulation predicts that producers will garner all possible benefits from regulation only in a special case. Economics is a science that almost always involves calculations of balance at the margin, and the economic approach to regulation is no exception to that rule. According to the economic theory, a regulator will permit producer profits to rise via, say, a higher regulated price, only as long as such a policy gains more votes from producer interests than it loses from others. Once the regulator has balanced off support from beneficiaries against opposition from injured parties to produce the largest possible net gain in votes, any further change is undesirable. Hence, producers can fully capture a regulator and expropriate all the potential benefits from government interference only in the special event that the injured group (consumers) has no opposition to the higher prices set by the regulator. In general, this will not be the case and the regulator will serve more than one master, so to speak.

The economic theory of regulation yields a surprisingly large number of propositions

about when and where regulation is likely to occur and about which groups are likely to gain or lose from it. For example, since the reward for politicians in supplying regulation is an opportunity to increase political support, regulation is more likely to surface in monopolistic or competitive industries than in so-called oligopolistic ones (industries with a few highly interdependent firms). The effect of introducing governmental sway in the former cases is either to reduce prices (where monopolies prevail) or to increase them (where firms are competitive). In either case there will be a gain in political support. But there is less scope for carrying out such a strategy in an oligopolistic setting because prices already will lie somewhere between those obtaining in monopolistic and competitive situations. In a sense, there is a smaller pie for regulators to carve up among competing interests. This line of reasoning enables the economic theory to explain why regulation of so-called natural monopolies such as railroads and electric utilities exists alongside government intrusion in seemingly competitive industries like taxicabs, trucking, agriculture, barbering, and so on.

Another implication of the economic theory is that increases in productivity or growth in demand within an industry will boost the likelihood of regulation. Since the regulator uses his ability to dispense potentially surplus profits to competing interest groups as a means of obtaining political support, factors which increase potential profits such as improved technology or increased demand are likely to increase the supply of regulatory activity.

Shifts in cost or demand also yield predictable outcomes within the economist's framework. When a regulated firm's costs increase, for example, price behaves as it would in a nonregulated environment—it goes up. But it goes up by more than it would if there were no regulation. To prevent the loss of political support from injured firms, the regulator forces consumers to share some of the burden of the cost increase by paying higher prices

than would emerge in a competitive scenario. Some political support is lost, but not as much as if the regulator had forced all the adjustment on a single group.

These represent only a sample of the propositions generated by the economic theory of regulation. Statements about the effects of shifts in demand, an identification of groups most likely to gain and lose from regulation (based on their economic characteristics), and an explanation of the phenomenon of subsidization of one class of regulated customers by another all are addressed in the literature. Whether these hypotheses are valid remains an open issue, but the economic approach is clearly a rich means of generating predictions about regulatory phenomena. Indeed, given the flavor of popular discussion about regulation in recent years, it seems worthwhile to consider what the new economic theory implies about the prospects for deregulation and regulatory reform.

REFORMING REGULATION: CAN IT BE DONE?

The Secretary of Commerce recently announced that because the "numbers and pervasiveness of Federal regulations tend to stifle business, frustrate the general public, and undermine the government's credibility," the government was beginning work on a "regulatory budget" that will show the costs of regulation (*Wall Street Journal*, April 11, 1978). Some estimates of these costs already exist: the 1975 *Economic Report of the President*, for example, placed the figure at 1 percent of GNP. More recently, the total costs of Federal regulation for fiscal 1979 were estimated at \$100 billion, well above 1 percent of GNP.²

Crude perceptions of these kinds of figures are more than sufficient to generate a great deal of public discussion concerning the advisability of efforts to (1) reduce the scope of regulatory activity in general, (2) scale

back particular kinds of government interference in certain markets where the cost-benefit calculation weighs obviously against the current regulatory setup, and (3) restructure the regulatory bureaucracy in a number of ways, including merging certain agencies, reducing the number of administrators, and establishing a separate body to review regulatory decisions. But with the exception of some Congressional activity directed towards deregulation of natural gas and of airline transportation, there has been little advance beyond the discussion stage in any of these areas. The economic theory of regulation suggests this is not very surprising. Indeed, when regulation is considered in a demand-supply context, the prospects for a wholesale deregulation program in the U.S. must be judged close to nonexistent.

The principal constraint on the demand for regulation is the cost of using the political system to solicit government-bestowed benefits. While Congress recently passed legislation that limits political contributions by *individuals* on both a candidate-by-candidate and a total amount basis, it permitted *groups*—so-called Political Action Committees (PACs)—to make larger contributions to individual candidates (\$5,000 per election compared to \$1,000 by individuals) and set no limit on total group contributions to political candidates (versus a \$25,000 limit on total giving by individuals). As legal constraints make individual support for politicians more costly, we should anticipate an increase in group support. In fact, the numbers of PACs increased from 608 at the end of 1974 to 1,261 in October 1977. And interest group spending in 1976 Congressional campaigns totaled \$22.6 billion, compared to \$12.5 billion in 1974 (Figure 3 overleaf). That the restrictions on *groups* were much less than those on *individuals* is entirely consistent with the economic theory of regulation. And it could make one pessimistic that Congress ever will act to curb the overall demand for regulation.

Nor is it easy to conceive of scenarios that lead to a reduced supply of regulation. Reor-

²See Murray L. Weidenbaum, "On Estimating Regulatory Costs," *Regulation* 2, 3 (1978), pp. 14-17.

ganization of the bureaucracy is not likely to produce this result because regulation comes ultimately from the political process. Admittedly the regulatory agencies often (but not always) operate with a flexible mandate, but the economic theory suggests that such flexibility is quite consistent with the interests of politicians. It allows the regulators to react to changes in external conditions (shifts in costs or demand, for example) to take maximum possible advantage of chances for political gain and to keep losses to a minimum. But as long as regulatory agencies are accountable to political bodies, there is little reason to conclude that shifting boxes on the regulatory organization chart will yield a general decline in government encroachment on markets.

One rather ironic scheme which has potential for reducing the volume of regulation has surfaced in recent years. In 1974, all executive branch agencies were required by executive order to file Economic Impact Statements which analyzed the economic effects of proposed regulatory changes. Since no additional funds have been made available to prepare such statements, the requirement increases the cost of producing regulation and hence should reduce the volume of such

activity. Indeed, it amounts to an indirect tax on the relevant agencies—reducing regulation via regulation, as it were. Presently, however, the program applies only to agencies within the executive branch. Though legislation has been introduced in Congress to extend the requirement to the independent regulatory agencies, the economic theory of regulation suggests that legislators are not likely to levy a significant tax on the proximate suppliers of regulation. If Congress does take some action in this area, it seems likely that lawmakers will either provide additional funding to the agencies to meet this requirement or have all the statements prepared by a single agency, such as the Congressional Budget Office. (One bill introduced in Congress makes exactly this proposal.) With either approach, the tax on regulatory activity would be avoided.

The economic theory of regulation implies that deregulation can come to pass only if some well-defined groups demand it as a means of increasing their wealth and only if politicians perceive that they can win a net vote gain from dismantling a particular regulation. But as the process of regulation itself creates new interest groups (lawyers, consulting firms, and the regulatory agencies themselves) which will resist deregulatory moves, it reduces the probability that we will observe a large number of successful bidders in the market for deregulation. Further, the substantial amount of uncertainty about who will gain from deregulation (and how big the gain will be) also argues for expecting a slow pace toward any deregulatory drift.

Must we conclude, then, that deregulation is America's number one pipe dream, since there is little justification for expecting either demanders or suppliers to reduce the scope of their activities in the market for regulation? For those who hold to the public-interest view of regulation, the answer is obviously No. If a major program of deregulation is in the public interest, then government officials eventually will perceive this and act accordingly. Nor does the economic theory imply

FIGURE 3

**INTEREST GROUP GIFTS PROVIDE
INCREASED SUPPORT TO
1976 CONGRESSIONAL CAMPAIGNS**

Group	1974	1976
Labor	\$ 6,315,488	\$ 8,206,578
Business	2,506,946	7,091,375
Health	1,936,487	2,694,910
Agriculture	361,040	1,534,447
Ideological	723,410	1,503,394
Lawyers	—	241,280
Miscellaneous	682,215	1,299,928
Total	\$12,525,586	\$22,571,912

SOURCE: Common Cause.

that deregulation can never come to pass. What it does tell us, however, is that any dismantling of the regulatory apparatus is likely to occur in the same fashion that much

of the structure was built—on a piece-by-piece basis in response to pressures from different interest groups. Time, as always, will tell us who's right.

SUGGESTED READINGS

The seminal work on the economic theory of regulation is George Stigler's "Theory of Economic Regulation," *The Bell Journal of Economics* 2, 1 (1971), pp. 3-21. For a formalized treatment of Stigler's framework, see Sam Peltzman, "Toward a More General Theory of Regulation," *Journal of Law and Economics* 19, 2 (1976), pp. 211-240. An interesting discussion and criticism of different theories of regulation is contained in Richard Posner, "Theories of Economic Regulation," *The Bell Journal of Economics* 5, 2 (1974), pp. 335-358. For empirical evidence, see Burton A. Abrams and Russell F. Settle, "The Economic Theory of Regulation and Public Financing of Presidential Elections," *Journal of Political Economy* 86, 2 (1978), pp. 245-258, and G. W. Schwert, "Public Regulation of National Securities Exchanges: A Test of the Capture Hypothesis," *The Bell Journal of Economics* 8, 1 (1977), pp. 128-150.



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