

## CHAPTER 20

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# GEORGE J. STIGLER, “THE THEORY OF ECONOMIC REGULATION”

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In the field of regulatory policy, few articles have achieved the impact of George Stigler’s “The Theory of Economic Regulation,” published in 1971. Stigler punctured the idea that regulation arises solely to advance the overall public interest by correcting market failures. He forcefully argued that instead “regulation is acquired by the industry and is designed and operated primarily for its benefit” (p. 3). Although Stigler never used the phrase “regulatory capture” in “The Theory of Economic Regulation,” his article has nevertheless come to be so identified with the idea that regulation serves private interests that it is hard to find any serious discussion of regulatory capture in the last 40 years that does not at least cite Stigler’s work. Indeed, the Social Sciences Citation Index reports that, in the year 2012 alone, over 90 articles cited Stigler’s “Theory”—notwithstanding the passage of more than 40 years since its publication. Clearly, Stigler’s work “changed the way economists analyze government regulation” (Peltzman 1993), and it “has exercised enormous influence over a large body of researchers” from other disciplines as well (Mitchell and Munger 1991).

Stigler’s “Theory” has had this impact—and should continue to—even though it is admittedly far from perfect. Some of its language, for example, exaggerates the power of business, in particular Stigler’s oft-quoted claim that regulation “as a rule” (p. 3) benefits regulated industries. In addition, its empirical evidence failed to rule out competing explanations, including the very possibility of the public interest theory that he sought to challenge. Yet, notwithstanding these limitations, Stigler’s article was at the time of its publication path-breaking in both its theoretical and empirical treatment of business–government relations. Even today, when public policy has expanded well beyond the economic regulation of discrete industries that Stigler studied, his insights remain important for understanding both the motivations of and the influences on government regulators, clearly distinguishing the positive enterprise of *explaining*

regulation from the normative task of *justifying* regulation. More effectively than others before him, Stigler framed vital questions about why and how regulation arises, questions that have preoccupied the most recent generation of regulatory scholars and will rightfully preoccupy generations to come.

## STIGLER'S "THEORY"

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Stigler made a strong claim in "The Theory of Economic Regulation": regulation is just a product, produced in a marketplace like any other product is. The main difference between regulation and other products is that the political process defines the structure of the market for regulation. As long as the differences between political and economic markets are taken into account, the application of standard concepts like monopoly and oligopoly, and tools of economic analysis like supply and demand, can provide useful answers to important questions about why regulation arises and what forms it takes. Of course, by the time Stigler was writing, other scholars had already recognized the value of a political economy approach to public policy (e.g. Buchanan and Tullock 1962; Olson 1965). Stigler, though, commanded attention because he applied insights from political economy specifically to regulation. He sought to dislodge what he called the "idealistic view" (p. 17) of regulation, namely that regulation advances the public interest, a view that had its hold on many economists and other scholars at the time. According to Stigler, regulation largely advances private interests because of the way political institutions create incentives for political leaders to emphasize an industry's interests over the broader public's interests.

In his "Theory" article, Stigler began by defining the products that government supplies in the regulatory marketplace. He noted that "the state has one basic resource which in pure principle is not shared with even the mightiest of its citizens: the power to coerce" (p. 4). Government uses this power to compel its subjects to pay taxes and follow rules. That power of coercion can be deployed in such a way as to help some individuals and industries at the expense of others. By trying to influence how the state uses its coercive authority, businesses seek to "buy" one or more of government's four main products: subsidies; control over competitive entry; regulation of product substitutes or complements; and the fixing of prices.

Stigler assessed the business value of each of these four products. Subsidies obviously provide firms with direct monetary benefits, but Stigler argued that they are usually not the first choice for business because they typically need to be shared with all firms in a sector, including entrants. For example, leading universities may lobby successfully for increases in research funding only to have other universities compete for these same funds. By contrast, firms much prefer regulations that operate as barriers to entry by potential competitors, or that otherwise disadvantage substitute products or advantage products complimentary to their own. Some of the starkest examples of entry barriers include requirements that regulators approve new trucking routes or the entry of

new airline carriers. But any time a regulation contains a grandfather clause exempting incumbent firms from new requirements, regulation increases the relative costs to new entrants. Just as existing businesses prefer regulatory barriers to entry, Stigler argued that they also favor the creation of institutions that can impose price controls on their sectors, especially if these institutions can be influenced to keep prices at levels higher than competitive rates.

Of course, simply because businesses can use regulation to enhance their profits, this does not mean that every firm will get exactly what it wants in the political marketplace. Stigler explained that the political process does not function like an ordinary market. Instead of products being allocated to the highest bidder, the political market ostensibly gives everyone a say (or at least a representative who has a say). This introduces complexity and uncertainty that firms must factor into their calculation of the expected benefits of regulation. "The channels of political decision-making" are, according to Stigler, "gross or filtered or noisy" (p. 12). For this reason, smaller businesses might actually sometimes reap disproportionate gains through the political process relative to what they would through the economic marketplace. Some firms may not succeed at all.

But still, business holds important advantages in the political process. All voters may have a say, but they also have little incentive to learn about policy proposals and actively express their preferences about them (Downs 1957). Not only does this inhibit their ability to reward political actions taken in their interest, it also limits their capacity to punish those politicians who champion policies that hurt them. The well-known challenges of collective action, enunciated by Mancur Olson (1965) six years before Stigler's "Theory," effectively function to privilege concentrated industry interests over the broader public interest. As a result, businesses with large stakes in regulation often get their way. These firms provide political parties and candidates with financial resources: campaign contributions, fund-raising efforts, jobs for political party members, and contracts with politicians' businesses, such as law firms. They also work to support get-out-the-vote efforts in favor of business-friendly representatives and causes.

In "The Theory of Economic Regulation," Stigler not only developed this theoretical explanation for industry's capture of the regulatory process, but he also sought to bring empirical evidence to bear on it. Reflecting his view that the economics profession was insufficiently attentive to both empirical analysis as well as government regulation (Stigler 1965, 1975), Stigler illustrated his claims in "The Theory" with references to different types of regulatory arrangements, such as oil import quotas. But he also put forward regression analyses of two state-level regulatory schemes—trucking regulation and occupational licensing—to support his political economy account of regulation. In the first of these regression models, Stigler focused on the limits that states placed on truck sizes and weights around the time the trucking industry started to expand in the 1930s. Stigler claimed that the stringency of these limits across different states correlated with variables related to the interests of the agricultural and railroad industries in each state. As his measure for

the importance of trucks to a state's agriculture industry increased, the limits on trucks grew less strict, presumably because the powerful farm lobby would ensure that farmers who needed large trucks would be allowed to use them. However, the shorter the railroad freight lines were in the state, the more restrictive the truck limits were, seemingly because trucks competed more with railroads on shorter routes. In these cases, restrictions on the size of trucks served the railroads' interests in limiting their competitors.

He also examined state licensing of occupations, such as beauticians, architects, lawyers, embalmers, and dentists, because these requirements restrict entry. Stigler hypothesized that state licensing would have occurred earliest in those states where the occupation's political strength was greatest, as measured by the raw numbers of individuals in the occupation as well as their concentration in urban environments (which presumably made it easier for them to act collectively). Stigler's analysis of data from around the turn of the twentieth century generated results that were, in his words, "not robust"—but that showed, "in general, the larger occupations were licensed in earlier years" (pp. 15–16). Stigler also compared licensed and unlicensed occupations in 1960 and found at least "a modicum" of descriptive evidence to suggest that licensing exists not to protect consumers but to limit the ability of potential entrants to practice the profession (p. 17).

For Stigler, then, the idea that regulation benefits business not only grew out of economic theory, but it also found support in what he considered to be an "illustrative" empirical analysis (p. 7). "The Theory of Economic Regulation" aimed to reshape economists' thinking about regulation, making the case for analyzing regulators' behavior using the same kinds of theories and methods economists use to analyze any other producer and consumer behavior. In his concluding comments in "The Theory," Stigler took aim at the simple-mindedness of economists who lambasted the Interstate Commerce Commission (ICC) for supporting railroads to the detriment of overall social welfare:

This criticism seems to me exactly as appropriate as a criticism of the Great Atlantic and Pacific Tea Company for selling groceries, or as a criticism of a politician for currying popular support. The fundamental vice of such criticism is that it misdirects attention: it suggests that the way to get an ICC which is not subservient to the carriers is to preach to the commissioners or to the people who appoint the commissioners. The only way to get a different commission would be to change the political support for the Commission, and reward commissioners on a basis unrelated to their services to the carriers. (p. 17)

Although Stigler never used the precise phrase "regulatory capture" in his article, the closing words he used certainly sounded with the same spirit of resignation about industry dominance of the regulatory process that usually accompanies charges of capture. He left the reader to wonder if there really could be any realistic way to avoid having regulators who were "subservient" to industry.

## INFLUENCE AND CRITIQUE

Stigler was by no means the first to note that businesses seek to influence regulatory agencies to their advantage. For some time, political scientists and historians like Samuel Huntington, Marver Bernstein, Gabriel Kolko, and Theodore Lowi had been describing regulatory agencies which regulated industries had manipulated for their own benefit (Huntington 1952; Bernstein 1955; Kolko 1963; Lowi 1969). Nevertheless, for economists and other scholars of regulation, Stigler's article provided the theoretical foundation—largely absent from prior research—upon which a more extensive research effort on the political economy of regulation could be built (Posner 1974). Using his theory, Stigler sought to explain his own discoveries that regulation did little to achieve its goals in controlling utility prices (Stigler and Friedland 1962) or improving the quality of securities offered for sale to the public (Stigler 1964). He also undertook to explain similar empirical findings by others. As Sam Peltzman has described:

While this image [of the regulator captured by the regulated industry] was hardly new . . . , the willingness of many economists to embrace it on the basis of mounting evidence was new. . . . [T]he evidence of capture seemed to ask for an explanation of why regulation had come to work in this seemingly perverse way. The answer [was] provided in Stigler's (1971) article on the theory of regulation. (1993: 822)

Others before Stigler had lamented the success that industry interests had in reorienting regulation, but by using economic principles to explain regulatory activity, Stigler also sought to show how and why regulatory regimes could be acquired—not just altered—by business (Posner 2013). In short, Stigler had articulated what soon became known as the "economic theory of regulation" (Posner 1974; Peltzman 1989).

Peltzman (1976: 211)—in his own widely-cited article—formalized Stigler's theory, acknowledging his "intellectual debt" to Stigler's "pioneering work." He also extended Stigler's analysis by postulating that regulators face both consumer and industry demands for regulation. He showed formally that a rational regulator will respond not by entirely delivering what a monolithic industry wants to the exclusion of others but by seeking an outcome that optimizes political support from all groups interested in regulation. Subsequent theoretical analyses further broadened Stigler's simple characterization of the interest group environment (Becker 1983; Grossman and Helpman 1994), more carefully distinguished the incentives faced by legislators and their agents (Weingast and Moran 1983; Laffont and Tirole 1991), described how political actors can use regulation to extract rents (McChesney 1987), and illustrated how attention to politicians' motivations can help distinguish between regulatory capture and the pursuit of public interest objectives (Levine and Forrence 1990).

In addition to theoretical extensions, Stigler's economic theory of regulation has prompted a multitude of empirical investigations of business–government relations across a variety of industries, including airlines (Levine 1981), mining (Kalt and Zupan

1984), banking (Kroszner and Strahan 1999), and manufacturing (Maxwell et al. 2000). His work has inspired inquiries spanning a broad set of policy and research domains, including accounting standards (Watts and Zimmerman 1978, 1990), rules for new business entry (Djankov et al. 2002), and trade policies (Hillman 1982; Grossman and Helpman 1994).

But perhaps the greatest indicator of the influence of Stigler's ideas may simply be the reaction that most contemporary readers will likely have upon reading "The Theory" today: it all seems rather obvious. Since the 1970s, thinking about regulation from a political economy perspective has become well-accepted within academic circles and more broadly. The perception that agencies can be captured has become commonplace. One need only point to reactions to various disasters in heavily regulated industries—the mortgage crisis and Great Recession, the Gulf of Mexico oil spill, and the Fukushima Daiichi nuclear accident in Japan—to see indications of Stigler's legacy. Much of the blame for these recent crises has been laid upon regulators who purportedly made themselves too subservient to the industries they regulated (Carrigan and Coglianese 2012).

In spite of its vast impact on regulatory scholarship (or perhaps because of it), Stigler's "Theory" has also invited its share of criticisms. These critiques have ranged from knocking down the strong claims that Stigler appeared to make in certain passages, to challenging the validity of his empirical analyses. To be complete, any consideration of Stigler's "Theory" should acknowledge at least four critiques of his work—even if none of them undercut the core contribution he made in utilizing the tools of theoretical economic analysis to explain how regulation actually gets implemented.

First, Stigler's article can be read to exaggerate the power of business over regulation. Some of his language definitely left this impression. He stated, for example, that his "central thesis" was "that, as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit" (p. 3). Such a strong claim about business dominance "as a rule" begs to be challenged—and easily so. After all, any suggestion that business holds an iron-clad grip over regulatory policy is contradicted by persistent, and often unsuccessful, business opposition to the imposition of costly regulatory burdens (Kamieniecki 2006). However, notwithstanding Stigler's sometimes forceful language, it would be somewhat unfair to attribute to Stigler the bold claim that regulatory capture occurs "as a rule." He never put forth evidence in "The Theory" that showed regulatory capture occurred with any regularity. Instead, he offered theoretical arguments and very limited empirical evidence from a few regulatory domains (Posner 1974). He also acknowledged elsewhere in his article the "defensive power of various other industries" that could complicate any business's efforts to capture a regulatory agency (p. 8). He specifically stated that his theory "does not mean that every large industry can get what it wants or all that it wants" (p. 11). For these reasons, it should be clear that Stigler did not believe all regulation is acquired by industry. That said, he did seem to think that a lot of regulation came into existence solely to serve industry's interests. As a result, reality seemed to hit Stigler's "Theory" hard within just a few years of its publication. The sweeping deregulation of airlines, telecommunications,



trucking, and natural gas that occurred in the United States in the late 1970s and early 1980s proved hard to square with Stigler's emphasis on regulation as a barrier to entry (Levine 1981; Quirk 1981; Derthick and Quirk 1985), although subsequent extensions of his analysis have been directed toward understanding deregulation (Peltzman 1989). Also complicating Stigler's account were the consumer, civil rights, and environmental movements—and the extensive new forms of regulation that accompanied them but which were opposed by industry. Of course, this is not to say that these new regulatory arenas cannot be helpfully analyzed by referencing political economy theory (e.g. Keohane et al. 1998), only that Stigler himself did not envision these possibilities any more than he considered the prospect of widespread deregulation.

Second, Stigler made little effort to distinguish between legislators and bureaucrats in his work. Legislators and the bureaucrats in regulatory agencies face different institutional environments with different political incentives—with bureaucrats being affected by what legislators do. Without any deep consideration of differing political institutions, Stigler's analysis could not fully explain how business-friendly regulatory regimes emerge (or do not emerge) from the political system (Shepsle 1982; Weingast and Moran 1983). This critique does not invalidate Stigler's political economy approach; it only qualifies the generalizability of some of Stigler's claims. As already noted, many scholars since Stigler have given specific attention to both the differences between legislators and bureaucrats as well as their interactions (Weingast and Moran 1983; Laffont and Tirole 1991). One of the most productive streams of political economy research on regulation in recent decades has centered on the study of regulatory institutions and their design (Carrigan and Coglianese 2011).

Third, Stigler's empirical evidence was, as even he acknowledged, very limited. He analyzed only two types of regulation—trucking and licensing—and found more than mixed support in only one of these. More importantly, and something Stigler did not acknowledge, his evidence could not rule out plausible explanations consistent with a public interest theory of regulation (Carpenter 2013). Although a positive correlation between truck weight limits and the length of railroad freight hauls might be some indication of regulatory capture by railroads, it may also be the case that states with higher weight limits simply have lower population densities. If so, longer railroad freight hauls would be needed to bring goods to a more dispersed population. Having fewer people would also decrease the risks of allowing heavy trucks on the roads, suggesting a reasonable competing explanation for the higher weight limits (Carpenter 2013). Similarly, if occupational licensing counteracts information asymmetries to improve the quality of services offered, it would be consistent with the public interest if these requirements arose where they would have the greatest benefits. In addition to urban areas, the benefits would be greatest where both the demand for and supply of the service were greatest. Rather than demonstrating capture, an alternative explanation for Stigler's negative correlations between licensing dates and both urbanization and occupational size was that regulations simply arose where they were most needed. In a similar vein, Stigler also gave short shrift to the possibility that regulation could at times simultaneously support industry interests and advance the public interest, at

least relative to a status quo of no regulation. He assumed, rather than established, that private interests and the public interest were in conflict.

Finally, although one of the virtues of a political economy approach like Stigler's is its relative simplicity, some scholars may deem this attribute a possible vice. A political economy model treats regulatory officials as subject to only a narrow range of self-interested motivations, an assumption that certainly makes generating predictions more tractable but could be said to undermine verisimilitude, if nothing else. It is sometimes suggested that government officials are motivated by more than their private gain (DiIulio 1994; Golden 2000); they may be called to public service by an underlying belief in the mission of an agency or a desire to pursue policies for the greater good (Kelman 1987; Wilson 1989). Public-interested regulators might even display outward behavior that sometimes looks like capture (Carpenter 2004; Coglianese et al. 2004). For example, if an agency observes through repeated interactions with certain firms that these businesses faithfully adhere to existing rules, it might sensibly choose to hold those firms to lower levels of regulatory scrutiny relative to newcomers to the industry. Focusing more attention on those with which they have less experience could be a sensible way for public-interested regulators to deploy scarce resources, but an unsophisticated political economic analysis might well associate such behavior with industry influence (Carpenter and Moss 2013). Thus, as with all theories, the circumstances to which Stigler's insights apply ultimately depend on where his assumptions fit, an obvious qualification never reflected in his strongly worded assertions.

This last critique returns to Stigler's main point, which was the rejection of public interest explanations for public policy outcomes. Suggesting that regulators may have hard-to-see public interest motivations indicates that an open debate still lingers, decades after Stigler's "Theory," about the very question he addressed so forcefully. Efforts to resist Stigler's emphasis on regulators' self-interest could perhaps be viewed as challenging the core of his political economy approach. Or it could also be that such resistance simply misses Stigler's main point. As we have noted, a full reading of "The Theory" shows he did not think that industry would always use regulation to get its way, notwithstanding some of his more ambitious theoretical claims. Nor did Stigler even reject the possibility that regulators might face mixed motivations. Rather, he sought to explain the general tendency of regulation to serve industry interests, and he did so by reference to the general tendencies created by incentives embedded within a democratic political system. He sought, in short, to explain what happens "as a rule."

## ENDURING VALUE

Stigler's "Theory" article brought to the foreground what remains one of the most vital questions about regulatory institutions: **how can they be made to work better to advance public welfare?** This question is fundamental for both scholars and policy-makers. Indeed, following nearly every major economic, environmental, and public



health disaster, elected officials put the spotlight on the design of regulatory institutions, often reorganizing existing regulatory agencies or creating new ones in an ostensible effort to prevent bad outcomes from happening in the future (Coglianese 2002; Carrigan and Coglianese 2012). Yet if efforts to fix regulatory institutions are ever to succeed, these efforts must be grounded on solid empirical research about regulators' behavior. As Stigler wrote at the end of "The Theory," "until the basic logic of political life is developed, reformers will be ill-equipped to use the state for their reforms, and victims of the pervasive use of the state's support of special groups will be helpless to protect themselves" (p. 18). Knowledge may not always equate with power in the political process, but it is a necessary condition for effective institutional reform.

Although the empirical evidence presented in Stigler's "Theory" was quite limited—especially when judged by contemporary standards—his effort to test his ideas with statistical analysis offered a template that others have followed in the decades since. His article provided a model in other respects as well, providing at least three additional lessons for the study of regulation and regulatory institutions.

First, researchers (if not also policy-makers) need to remain cognizant of the difference between the empirical and the normative. This is not to say that the two can, or should, ever be neatly compartmentalized. Normative concerns can appropriately motivate the framing of much empirical inquiry, and, as critics of political economy have suggested, normative ideas might well have some influence, as an empirical matter, over public policy behavior (Reich 1990). Still, normative claims cannot substitute for empirical ones, and empirical claims need to be tested, not assumed. One simply cannot expect that policy outcomes will always, or ever, accord with the normative precepts of standard welfare economics. If this seems platitudinous, that is in no small part because of Stigler's "Theory."

Second, although Stigler's choice of language in "The Theory" may at times have sounded absolutist, his empirical analysis actually revealed an appropriately subtle posture toward regulatory capture. Unfortunately, words like "capture"—which Stigler did not use—or "subservient"—which he did—conjure up binary arrangements: a regulator is either subservient or not. But reality is messier. Not only do a variety of non-industry interests get involved in regulatory policy-making, but different industry interests can compete with each other. Stigler recognized as much. After all, one of his empirical tests involved an explicit tension between industries, namely, railroads versus trucking firms. Moreover, another messy aspect of reality is that industry influence is not absolute; no agency is in this sense fully "captured." Influence is instead a matter of degree, and the researcher's challenge is to identify and explain the degree of industry influence. Despite some of his bold claims—perhaps born from the ambitions of his theoretical analysis—Stigler approached his research challenge in precisely this way. His entire empirical analysis treated influence as a matter of degree. After all, he analyzed regulation in continuous terms, using variables like truck length and weight restrictions rather than looking for complete bans on truck transportation. Like any good social scientist, he looked for statistically significant correlations, not perfect

ones. Future research on regulatory capture should continue to adhere to a nuanced conception of capture.

Finally, although he was not explicit about it, Stigler's choice of empirical tests recognized the importance of differentiating between various facets of regulation. Regulation is itself not a monolithic phenomenon, but refers to a complex set of behaviors: policy-making, institution-building, enforcement, and more. Regulatory standards can be defined or structured in different ways. Whatever explains when these standards are established may not explain what they require. Whatever explains the making of these different regulatory standards may not explain how they are enforced. At some regulatory agencies, standard-setting could prove more susceptible to industry influence than enforcement (or vice versa). Stigler tacitly acknowledged the existence of different facets of regulation. Consider his varied empirical tests. One of his analyses centered on the stringency of trucking weight limits, while the other focused on the timing of occupational licensing rules (regardless of how stringent the licensing standards might have been). Giving explicit attention to different facets and types of regulation remains a valuable strategy. Political economy models have illuminated policy-makers' choices about so-called command-and-control regulation and market-based instruments (Keohane et al. 1998). Other forms and facets of regulation—e.g. management-based regulation, information disclosure, voluntary approaches, or cooperative enforcement—could be fruitfully studied through a political economy lens (Carrigan and Coglianese 2011). New questions can be imagined too, such as whether some alternative forms of regulation are more (or less) resistant to industry influence or whether some are harder (or easier) to use as a barrier to entry.

## CONCLUSION

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More than 40 years have passed since Stigler published "The Theory of Economic Regulation." Much has changed during this time, but we still know too little about how to design regulatory institutions to resist capture and enhance the broader social welfare. Yet thanks to Stigler, as well as to the broader literature on the political economy of regulation he inspired, we know much more than we did four decades ago. Back in the 1960s and early 1970s, regulation was viewed by economists primarily as a mechanism deployed to solve market failures—not as a weapon to be exploited by firms seeking to create barriers to efficient competition. Stigler's analysis was game-changing, rousing economists and regulatory scholars to the possibility that regulation could play exactly the opposite role from that intended. This caution, as well as Stigler's overall focus on the role of private interests, remains no less germane to today's highly changed regulatory landscape. Furthermore, his example of theoretical development and empirical verification serves as a model of the kind of systematic thinking about regulation that even now needs greater supply. In the face of serious social and economic problems,

some of which arise despite regulation and some perhaps because of it, we must do more, Stigler admonished, than simply "preach to the commissioners or to the people who appoint the commissioners" (p. 17). We need clear ideas tested by careful empirical analysis. Looking back at Stigler's classic article, today's reader should see "The Theory of Economic Regulation," its limitations and flaws notwithstanding, as an exemplar of the type of research needed to equip decision-makers and reformers to make better regulation and regulatory institutions.

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