2004

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C. Steven Bradford

University of Nebraska-Lincoln, sbradford1@unl.edu

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THE COST OF REGULATORY EXEMPTIONS

C. Steven Bradford

I. INTRODUCTION

Government regulations, whether they appear in statutes or administrative rules, often contain exemptions: certain persons or transactions are fully or partially excused from complying with the regulatory scheme. Even regulations without explicit exemptions may be worded in such a way as to implicitly exempt certain persons. A rule that applies to "all green objects" implicitly exempts objects of every other color.

Economists and legal scholars have written dozens of analyses of the efficiency of various government regulations but, with a few exceptions, they have not paid much attention to exemptions from those regulatory requirements. The limited economic and legal literature on exemptions focuses on one particular type of exemption — the small business exemptions which appear in many U.S. statutes and regulations.

1 Some exemptions exempt classes of persons or firms. See, e.g., 42 U.S.C. § 12111(5)(A) (defining "employer" under the Americans with Disabilities Act to exclude companies with fewer than 15 employees). Other exemptions exempt particular classes of transactions. See, e.g., 17 C.F.R. § 230.504(b)(2) (2003) (exempting issuers from registering securities offerings under the Securities Act of 1933 if the offering meets certain requirements). The issues discussed in this paper do not depend on whether the exemption is based on characteristics of the regulated person or characteristics of the regulated transaction. The two types of exemptions are discussed interchangeably in the text.

2 Viewed this way, it is obvious that questions about the substantive design of the regulation shade into questions of exemption.


The traditional economic case for exemptions is straightforward. Government regulation is economically efficient only if, considering all possible regulatory alternatives including no regulation at all, it produces the greatest possible net benefit. If the cost of government regulation exceeds the benefit, regulation is inefficient. Even if a regulation produces a net benefit universally applied, an even greater net benefit might be produced through the use of exemptions. If the cost of regulating particular firms or transactions exceeds the benefit of applying the regulation to those same firms or transactions, the net benefit of the regulation as a whole can be increased by excluding those negative-net-benefit firms or transactions.

The economic case for exemptions is incomplete, however, unless one takes into account the costs of the exemptions themselves. Regulatory exemptions involve various types of transaction costs. The cost to the regulator to create the exemption is an obvious one, but there are other, less obvious transaction costs. One such cost is specification error. No exemption can be drafted perfectly, so exemptions will exempt some firms or transactions whose regulation produces a positive net benefit — the benefit of applying the regulation to the firm or transaction exceeds the cost. Conversely, exemptions do not exempt all firms whose regulation produces a negative net benefit — the cost of applying the


6 "If society spends its regulatory resources efficiently, it maximizes the net benefits of regulation." ROBERT W. HAHN, REVIVING REGULATORY REFORM: A GLOBAL PERSPECTIVE 46 (2000); see also EUGENE BARDACH & ROBERT A. KAGAN, GOING BY THE BOOK: THE PROBLEM OF REGULATORY UNREASONABLENESS 6-7 (1982); EDITH STOKEY & RICHARD ZECKHAUSER, A PRIMER FOR POLICY ANALYSIS 134-158 (1978). Throughout this paper, I use the term "net benefit" to refer to the difference, positive or negative, between the total benefit of regulation and its total cost: Net Benefit = Total Benefit - Total Cost. I take no position on the controversial issues of how to value nonpecuniary costs and benefits or whether some costs and benefits should be weighted more heavily than others.


8 I am not foolish enough to believe that all, or perhaps even most, government regulation produces a net benefit. See Robert W. Hahn, Regulatory Reform: What Do the Government’s Numbers Tell Us?, in RISKS, COSTS, AND LIVES SAVED: GETTING BETTER RESULTS FROM REGULATION 208-253 (Robert W. Hahn ed., 1996) (concluding that about half of the final rules studied would not pass a cost-benefit test, even using the agencies’ own numbers). But, if government regulation does produce a net benefit, what is the case for exempting certain firms and transactions?

9 Obviously, not all exemptions promote economic efficiency. Some exemptions arise from jurisdictional limitations. An agency in State A will not usually regulate transactions in State B. Other exemptions are purely political. Attempts may be made to justify such exemptions in economic terms, but they really arise because the regulator has insufficient political power to impose the regulation on the exempted entities. Of course, some jurisdictional exemptions or exemptions adopted for reasons of political expediency may be economically efficient as well. My inquiry is not whether all exemptions promote economic efficiency, but whether there is an economic efficiency justification for regulatory exemptions in general and, if so, under what conditions they are efficient.
regulation to the firm or transaction exceeds the benefit. The less precisely defined the exemption, the greater the error cost. If this definitional imprecision is too great, what appears in theory to be an efficient exemption may actually reduce the net benefit of the regulation.

Exemptions also increase enforcement costs. Exemptions create two classes of firms or transactions, one of which must comply with the regulation and one of which may not. With an exemption in place, the regulator may no longer assume that a non-compliant firm is in violation of the regulation, making enforcement more difficult. Exemptions also increase the costs to regulated firms, who must determine whether or not they are exempt, and encourage those firms to engage in possibly inefficient strategic behavior to fit within the exemption and avoid the cost of the regulation. Finally, exemptions impose information costs on non-regulated third parties who sometimes must distinguish between regulated and non-regulated firms.

In sum, the conventional analysis of exemptions is incomplete. It is true that, for an exemption to make economic sense, the cost of regulating the exempted entities or transactions must exceed the benefit of applying the regulation to those entities or transactions. But that is only a necessary, not a sufficient, condition. The cost of the exemption itself must also be taken into account. An exemption is economically justified only if the cost of regulating the exempted entities or transactions exceeds the sum of the benefit of applying the regulation to those entities or transactions and the exemption’s transaction costs.

II. THE ECONOMIC CASE FOR EXEMPTIONS

A. The Costs and Benefits of Regulation

A regulation is efficient only if it produces a net benefit — that is, only if the total benefit produced by the regulation exceeds its total cost.\(^\text{10}\) Let \(TB_i\) be the total benefit of applying a particular regulatory scheme to a given firm \(i\). Then, the total benefit of applying the regulatory scheme to all firms is \(\sum_{i=1}^{n} TB_i\), where \(n\) is the number of regulated firms. Similarly, if \(TC_i\) is the total cost of applying a particular regulatory scheme to a given firm \(i\),\(^\text{11}\) the total cost of applying the regulatory scheme to all \(n\) firms is \(\sum_{i=1}^{n} TC_i\). The regulation is a Kaldor-Hicks improvement\(^\text{12}\) over the unregulated world only if \(\sum_{i=1}^{n} TB_i - TC_i > 0\).

\(^{10}\) See supra note 7.

\(^{11}\) \(TC_i\) must, of course, include all of the costs associated with the regulation, not just the regulated firm’s cost to comply with the regulation. Other costs would include the enforcement cost incurred by the regulator and any costs incurred by third parties as a result of the application of the regulation to the regulated firm.

\(^{12}\) A change is a Kaldor-Hicks improvement if it increases net wealth—in other words, if the benefits associated with the change exceed the costs. See, e.g., HENRY N. BUTLER, ECONOMIC ANALYSIS FOR LAWYERS 77-78 (1998); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 14-17 (5th ed. 1998).
The idea that a regulation's benefits should exceed its costs is relatively simple but often overlooked. At times, the focus is almost exclusively on benefit, with little consideration of cost. A state of the world is publicly identified as a problem and legislation is passed to "solve" the problem, with no or little mention of the cost of the regulation or whether the "solution" is worth its cost. In other words, the focus is on benefit rather than net benefit: the regulation is lauded because it produces benefits — that is, ∑BT > 0.

Over the past twenty years, the cost of regulation has become a more important consideration. Benefit and cost are not always explicitly balanced, but there is at least a recognition that regulation imposing "excessive" costs is bad. Concern about the cost of "big government" has created a new governmental sensitivity (or at least a need to appear sensitive) to the costs and benefits of regulation. Claims that the benefits produced by a regulation exceed its cost are now fairly common.

Economists, of course, recognize that a regulation is not efficient merely because its benefits exceed its costs. Efficiency requires not just a net benefit, but the greatest possible net benefit. A regulation that produces a net benefit should be refined further, if possible, to maximize the net benefit. This economic insight underlies regulatory exemptions, which attempt to increase the net benefit of a regulation by excluding firms or transactions whose regulation imposes a net cost.

13 The latest (and perhaps greatest) example is the Sarbanes-Oxley Act, which will impose significant new accounting and auditing requirements on American businesses, substantially increasing the cost of doing business. See, e.g., Thomas G. Donlan, Undermining the Corporation: The Latest Law in Pursuit of Fraud May Do More Harm Than Good, BARRONS, Aug. 5, 2002, at 35, available at 2002 WL-BARRONS 22178897. At the ceremony to sign the bill, President Bush congratulated himself and Congress on their successful efforts to restore corporate integrity, with nary a mention of whether "restoring corporate integrity" was worth the costs imposed by the bill. See George W. Bush, Remarks on Signing the Sarbanes-Oxley Act of 2002, (July 30, 2002), available at 2002 WL 14547680.


16 See supra note 7.
B. The Extent of Regulation

Regulation can vary along two important dimensions: its level and its coverage. By the level of regulation, I mean the standard applied to regulated entities — for example, whether to have a .001 p.p.m. or .005 p.p.m. discharge limitation. By the coverage of regulation, I mean the entities required to comply with the standard — for example whether all companies must comply or only manufacturing companies. Level and coverage decisions are the keys to all regulatory exemptions.

1. The Level of Regulation

Obviously, the level of regulation can vary. Environmental anti-pollution regulations must choose an allowable discharge level for each particular pollutant. Employment and safety regulations must choose an appropriate combination of workplace safety rules. Disclosure regulations must specify the amount and type of information to be disclosed. Each possible level of regulation has its own costs and benefits. Often, the benefit of a regulation increases as the regulation becomes more stringent, but so does the cost. If the goal is economic efficiency, the regulator must choose the level of regulation that produces the greatest net benefit — in other words, the level that maximizes $\sum_{i=1}^{n} (TB_i - TC_i)$, where $n$ is the number of regulated firms.\(^{17}\)

2. Coverage

Regulation can also vary in coverage: the set of firms or transactions required to comply. The regulation may cover the entire population, or it may be limited to a single industry, a few firms, or even a single firm.

Coverage decisions also affect the efficiency of a regulation. The overall net benefit of the regulation is maximized by excluding firms or transactions whose regulation results in a negative net benefit.\(^{18}\) Assume, for example, that the net benefit of applying the regulation to all $n$ firms is positive: $\sum_{i=1}^{n} (TB_i - TC_i) > 0$. But assume further that we can identify a subset of firms ($k, l, \ldots, n$) for whom application of the regulation produces a negative net benefit: $\sum_{i=k}^{n} (TB_i - TC_i) < 0$. In Figure 1, this would be the subset of firms to the right of the dashed line.

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\(^{17}\) In making this choice, it must be remembered that no regulation at all, with a baseline net benefit of 0, is always an option. If all possible regulation produces a negative net benefit compared to the baseline no-regulation option, the efficient choice is not to regulate.
The cost of regulating firms to the right of the dashed line exceeds the benefit produced by their regulation, so the net benefit of the regulation as a whole is lower when they are included. Exempting that subset of firms (k, l, ..., n) from the regulation and regulating only the remaining firms (1, 2, ..., j) will increase the overall net benefit of the regulation. Since \( \sum_{i} TB_i - TC_i < 0 \), then \( \sum_{i=1}^{j} TB_i - TC_i > \sum_{i=1}^{n} TB_i - TC_i \).

Legislators understand this point on a basic, intuitive level, even if they are not willing to trade off costs and benefits explicitly. Very few regulatory statutes apply to the population as a whole. Why not? Because not everyone is responsible for every problem. Regulating those who have nothing to do with a problem imposes a cost on those regulated with no offsetting benefit. For example, law professors are not required to file reports on the pollutants they discharge because they discharge no pollutants in their work. Applying anti-pollution regulation to law professors would impose a cost on them with no corresponding benefit. The regulation is more efficient with their exclusion.

Often, regulating a particular firm or transaction will produce some benefit, but the cost of regulating that firm or transaction exceeds the benefit. The efficiency argument for excluding those firms or transactions from the coverage of the regulation is the same, but extending the cost-benefit argument to firms

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18 This assumes that there are no transaction costs associated with exempting those firms or transactions. This assumption will be relaxed later in the article.
19 I will refrain from the obvious joke about law review articles.
20 Persons like this are often excluded not by an express exemption, but by limiting the positive coverage of the regulation. In other words, instead of a universally applicable regulatory requirement with an exemption that says "This exemption shall not apply to C and D," the regulation merely says "A and B shall" do whatever the regulation requires, implicitly excluding C and D. Except for certain procedural issues that might arise in a proceeding to enforce the regulation, such as the burden of proof, this is, of course, purely a matter of semantics. Questions of coverage and questions of exemption are merely two sides of the same coin.
whose regulation produces a non-trivial benefit is often more difficult politically. Politicians and regulators have learned well the lessons of the Ford Pinto case,\(^{21}\) and are often unwilling to make an explicit, public tradeoff between cost and benefit. In addition, imposing a regulatory cost on one set of firms within an industry while exempting competing firms raises cries of unfairness and political favoritism. It is one thing to exclude law professors from anti-pollution regulation; it is entirely different politically to exempt one widget manufacturer when other widget manufacturers must bear the cost of compliance.

3. Tiering: Mixing Level and Coverage Decisions

Decisions about the level and coverage of regulation can be linked, applying different levels of regulation to different classes of firms or transactions. This regulatory device, known as tiering,\(^{22}\) can maximize the net benefit of a regulation by applying to each class the level of regulation (from none to full) that maximizes the net benefit for that class.\(^{23}\) For example, Class A might be completely exempted because no level of regulation produces a positive net benefit for that class. Class B might be fully regulated because that produces the greatest net benefit for Class B. And Class C might be subjected to an intermediate level of regulation because that produces a greater net benefit for the firms in Class C than either full exemption or full regulation.\(^{24}\)

4. Exemptions and Economists

Given the obvious economic argument for exemptions, one might expect to find considerable economic literature on the subject. But economists have paid scant attention to exemptions, and almost all of the economic literature focuses on the exemptions for small businesses that appear in many U.S. regulations.\(^{25}\) A number of studies examine whether the costs of regulatory compliance are proportionally greater for small businesses.\(^{26}\) A much smaller body of literature

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\(^{23}\) This assumes, of course, that tiering involves no transaction costs. Transaction costs must be considered in deciding whether a tiered regulatory system is efficient.

\(^{24}\) For a discussion of why tiering makes sense in the context of federal regulation of securities offerings, see Bradford, Transaction Exemptions, supra note 4, at 618-22.

\(^{25}\) See, e.g., 15 U.S.C. § 18a(a)(2) (Hart-Scott-Rodino premerger notification and waiting period requirements apply only if the acquired and acquiring companies exceed a size threshold); 29 U.S.C. § 203(s)(1)(A) (excluding from enterprise coverage under the Fair Labor Standards Act entities with an annual gross volume of business less than $500,000); 42 U.S.C. § 12111(5)(A) (defining "employer" under the Americans with Disabilities Act to exclude companies with fewer than fifteen employees).

\(^{26}\) See, e.g., Beale & Lin, supra note 5, and sources cited therein.
considers whether this cost difference, if it exists, makes small business exemptions efficient. Almost no attention has been paid to the economic theory underlying exemptions.

III. THE TRANSACTION COSTS OF EXEMPTIONS

In Section II, I explained why exemptions might be efficient, even if a regulation on the whole produces a net benefit: if, for the exempted firms or transactions, the total cost of regulation exceeds the benefit, exempting those firms or transactions may increase the total net benefit of the regulation. But this analysis is incomplete because it ignores an important set of costs — the transaction costs associated with the exemptions themselves. Exemptions are not costless and in deciding whether exemptions are efficient, those costs must be considered. The costs of exemptions include specification costs, the cost of strategic behavior, enforcement costs, and third-party information costs. This section discusses those transaction costs, and the next section explains how those costs affect the economic efficiency of exemptions.

A. Specification Costs

1. The Cost to Create an Exemption

Exemptions obviously do not appear spontaneously. The legislature or a regulatory agency must create them, and their creation is not costless. Nor is this promulgation cost trivial, especially given the expenses associated with the notice-and-comment provisions of the Administrative Procedure Act ("APA").

A regulator incurs several different types of costs to produce a regulatory exemption. First, the regulator must determine the need for an exemption and whether the costs of the regulation exceed the benefits for certain segments of the regulated industry. It is difficult enough to estimate regulatory costs and benefits for the regulated industry as a whole. Obtaining reliable cost-benefit data for subsets of the regulated industry is even more difficult. After examining the costs and benefits of applying the regulation to various types of firms and transactions, if that is possible, the regulator is in a position to decide on the limits of the exemption(s). At that point, the regulator must draft a rule that defines, as accurately as possible, the entities or transactions to be exempted. The problems associated with an inaccurate delineation of the exemption are discussed in the next subsection. Once the rule is drafted, the regulator must take whatever steps are necessary to adopt the rule. If the APA applies, those steps include publishing the proposed rule and fairly substantial supporting documentation, waiting for comments on the proposed rule, reviewing and
responding to those comments, making any necessary revisions to the rule, and, finally, publishing the final rule.\textsuperscript{29}

These are not one-time costs. An exemption is efficient only if, for the exempted group, the costs of regulation outweigh the benefits. As technology and individual preferences change over time, the costs and benefits of the rule also change. Regulation that once was inefficient may become efficient and vice versa. Therefore, both the regulation and its exemptions must be reevaluated as time passes.\textsuperscript{30}

2. The Cost of Error: Over- and Under-Inclusiveness

The purpose of exemptions is to free from regulation those transactions or entities for whom the cost of regulation exceeds the benefit: \( TC_j > TB_j \). However, except in the simplest cases exemptions will not be perfect.\textsuperscript{31} No matter how well-crafted the exemption and no matter how careful and vigorous its enforcement, exemptions will usually be both over- and under-inclusive. There will be false negatives — exempted firms that should be regulated because the benefit of applying the regulation to them exceeds the cost: \( TB_j > TC_j \). And there will be false positives — firms subject to the regulation that should be exempted because the cost of applying the regulation to them exceeds the benefit \((TC_j > TB_j)\). Table 1 illustrates the possibilities. We can group the universe of all entities and transactions into four categories:

1. **True positives (TP)**: Regulated entities for whom regulation is efficient because the benefit of regulation exceeds the cost: \( TB_j > TC_j \).

2. **False positives (FP)**: Regulated entities for whom regulation is inefficient because the cost of regulation exceeds the benefit: \( TC_j > TB_j \).

3. **False negatives (FN)**: Exempted entities for whom regulation is efficient because the benefit of regulation exceeds the cost: \( TB_j > TC_j \).

4. **True negatives (TN)**: Exempted entities for whom regulation is inefficient because the cost of regulation exceeds the benefit: \( TC_j > TB_j \).

\textsuperscript{29} 5 U.S.C. §§ 552-59.

\textsuperscript{30} The frequency of reevaluation that is efficient depends on the cost and benefit of reevaluating the regulation and its exemptions. The benefit of reevaluation, in turn, depends primarily on the expected rate of change of the costs and benefits of regulation over time.

\textsuperscript{31} More precisely, the cost of a perfect separation between exempted and regulated firms far exceeds the gains.
A perfect exemption would exactly track the dividing line between firms whose regulation produces a positive net benefit and firms whose regulation produces a negative net benefit. There would be no false positives or false negatives, and the exemption would maximize the net benefit of the regulation. But, in an imperfect world, this result cannot be realized. Assume that the rectangle in Figure 2 represents the entire universe of entities or transactions that might be regulated. The dotted line bisecting the box separates those entities whose regulation would produce a positive net benefit (to the left of the curve) from those entities whose regulation would produce a negative net benefit (to the right of the curve).

A perfect exemption would track the dotted line perfectly, but that is not possible. The solid line in Figure 3 represents an imperfect exemption. Firms to the right of the exemption line are exempted and firms to the left are regulated. The false positives (regulated entities that should be exempted) fall into the shaded areas of the figure. The false negatives (exempted entities that should be regulated) fall into the cross-hatched areas. The total error cost associated with an imperfect exemption is the sum of the shaded and cross-hatched areas.
Narrowing or broadening the exemption can change the amount of each type of error, but cannot eliminate the error entirely. If we narrow the exemption to eliminate the false negatives, as shown in Figure 4, there are no false negatives. The exemption exempts only firms whose regulation produces a negative net benefit. But the cost of doing this is an increase in the error associated with false positives (regulated firms that should be exempted), as represented by the shaded areas in Figure 4.
An identical problem results if we broaden the exemption to make it more inclusive, as shown in Figure 5. This eliminates the false positives; all firms that should be exempted are exempted. However, it does so only by increasing the number of false negatives (exempted firms whose regulation would produce a positive net benefit). This error cost is represented by the cross-hatched area in Figure 5.

Figure 5

If, in an imperfect world, the regulators cannot eliminate this specification error (or cannot eliminate it at a low enough cost), the second-best solution, not accounting for other possible transaction costs, is to craft the exemption so that the total of the false positives and the false negatives is minimized. To simplify the discussion, let the four variables, TP, FP, FN, and TN, equal the total net benefit associated with each of the four categories — true positives, false positives, false negatives, and true negatives. TP is the total net benefit associated with regulating all the true positives: $TP = \sum_{i=1}^{n} TB_i - TC_i$, where $n$ is the number of true positives. By definition, $TB_i > TC_i$ for each of the entities or transactions in this group, so the total, TP, is positive. FP is the total net benefit associated with regulating all the false positives: $FP = \sum_{i=1}^{m} TB_i - TC_i$, where $m$ is the number of false positives. Since, by definition, $TC_i > TB_i$ for each of the entities or transactions in this group, the total, FP, is negative. FN is the total net benefit that would be obtained by regulating all the false negatives: $FN = \sum_{i=1}^{k} TB_i - TC_i$, where $k$ is the number of false negatives. FN is positive because $TB_i > TC_i$ for each of the entities or transactions in this group. Finally, TN is the total net benefit that would be obtained by regulating all the true negatives: $TN = \sum_{i=1}^{j} TB_i - TC_i$, where $j$ is the number of true negatives. $TC_i > TB_i$ for each of the entities or transactions in this group, so the total, TN, is negative.
The total error cost of an exemption, compared to a hypothetical world of perfect information, is $FN + |FP|$. $FN$ is the value lost by exempting from the regulation entities or transactions whose regulation would produce a net gain. $|FP|$ is the value lost by not exempting from the regulation entities or transactions whose regulation produces a net cost. Specification error is not, of course, the only transaction cost of exemptions, but, if it were, the following rules would lead to economic efficiency:

1. An exemption should be adopted if $|TN| > FN$, because the exemption would increase the net benefit of the regulation. Adopting the exemption produces both a gain and a loss. The gain produced by the exemption is $|TN|$, the cost saved by not regulating firms whose regulation results in a net loss. The loss produced by the exemption is $FN$, the gains foregone by not regulating firms whose regulation produces a net benefit. If $|TN| > FN$, the exemption produces a net benefit. A perfect exemption that costlessly exempted all firms for which $TC_j > TB_j$ and regulated all firms for which $TB_j > TC_j$ (in other words, an exemption for which $TN$ and $FN$ both equal 0) would be preferable, but an imperfect exemption is better than no exemption at all.

2. If $FN > |TN|$, the exemption is not efficient. The cost of the exemption (the gains foregone by exempting the false negatives) exceeds the benefit (the cost saved by exempting the true negatives). A universally applicable regulation produces a greater net benefit than the same regulation with this exemption. Of course, it is still possible that no regulation at all is preferable to a universally applicable regulation, if the regulation applied universally does not produce a net benefit. It is irrelevant that, in a world without error, a regulation which properly segregates firms into regulated and exempted categories would produce a net benefit. Since an error-free regulation/exemption combination is not feasible, the best alternative is no regulation at all.

3. Exemptions should be designed to maximize $|TN| - FN$. The efficient exemption or set of exemptions is the one that produces the greatest net benefit.

B. The Cost of Strategic Behavior

Complying with government regulations is often costly, and regulated firms would prefer to be exempted and avoid some or all of those compliance costs. They therefore have an economic incentive to modify their behavior to fit within

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32 My thanks to my colleague Norm Thorson for raising the issue discussed in this section.
an exemption if the cost of doing so is less than the cost of complying with the regulation. 33 This strategic behavior could be inefficient because some of its costs are external to the firm and therefore will not be considered by a rational firm in deciding what to do. This inefficiency is another cost of regulatory exemptions. 34

The problem of strategic behavior is best illustrated by example. Assume that Acme Corporation is a manufacturer subject to environmental pollution controls. It costs Acme $10 million to comply with the regulation, but Acme’s compliance reduces pollution costs by $15 million. Applying the regulation to Acme produces a net benefit of $5 million if, to simplify the example, we make the unrealistic assumption that Acme’s compliance cost is the only cost of the regulation. 35

To illustrate the strategic reaction to exemptions, assume that there are two types of manufacturing plants, “large” and “small”, and that Acme operates a typical large plant. The cost for “small” plants to comply with the pollution regulation is $9 million and the benefit of compliance is only $8 million, because small plants pollute less than large plants. The regulator exempts small plants because small plants’ cost of compliance exceeds the benefit by $1 million (TB; < TCj).

The exemption appears efficient, but the potential effect of the exemption on Acme’s behavior must be considered. Acme can save money by reducing the size of its plant so it qualifies for the exemption. Operating a “small” plant would reduce Acme’s business profits, let’s say by $6 million, but would save Acme $10 million in regulatory compliance costs. The net gain to Acme of reducing its plant size would be $4 million. 36

33 Regulated firms have an incentive to decrease production and divest regulated subsidiaries to avoid regulation. BrocK & Evans, supra note 5, at 81, 92; see also Milton Z. Kafoglis, Mandated Costs: Impact on Small Business, in Economic Effects of Government Mandated Costs, at 119 (Robert F. Lanzilloti ed., 1978) (explaining why regulatory tiering and exemptions may encourage the growth of small firms); Jay B. Barney et al., Organizational Responses to Legal Liability: Employee Exposure to Hazardous Materials, Vertical Integration, and Small Firm Production, 35 Acad. of Mgmt. J. 328, 342 (1992) (finding a positive association between the threat of legal liability in an industry and the percentage change in the number of small firms in that industry).

34 The discussion in this section focuses on exemptions that exempt firms with particular characteristics, but strategic behavior can also occur with respect to exemptions for particular types of transactions. A transaction exemption gives a firm an incentive to structure its transactions to fit within the exemption. If the modified transaction structure is suboptimal for the firm absent the exemption and if some of the costs of the restructured transaction are external to the firm, the same problem arises.

35 In other words, we are assuming that the regulator’s cost is zero and there are no third-party costs associated with the regulation.

36 The effect on Acme is actually a little more complicated than this simplified example, as Acme will undoubtedly incur transition costs downsizing from a large to a small plant. Acme will reduce the size of its plant only if the present value of the future reduced regulatory cost exceeds the present value of these transition costs.
This reduction in plant size is profitable to Acme, but economically inefficient. The social cost of Acme's strategic behavior includes the $10 million gain due to lower regulatory compliance costs and the $6 million loss from the relative inefficiency of the smaller plant, but there is an additional cost external to Acme — the $8 million in additional pollution the small plant produces because it is not subject to the pollution controls. The net social cost of Acme's change to a smaller plant is $4 million ($10 - $6 million - $8 million = - $4 million). Acme's strategic behavior is inefficient because Acme does not take into account the external benefit of the regulation — the reduction in pollution.

Other "large" manufacturers would face the same incentives as Acme, and would engage in the same inefficient strategic behavior. In addition, small manufacturers who might be considering upgrading to a larger plant due to the increased operational efficiency (the extra $6 million profit) would not do so because of the regulatory cost. And new entrants who could profitably operate large plants would open small plants instead. If an exemption causes inefficient strategic behavior of this sort, that cost must be considered in evaluating the exemption's efficiency.

C. Enforcement Costs

Exemptions also create additional enforcement costs. Enforcement is easier if there are no exemptions. The regulator only has to search for firms not complying with the regulation; any non-compliance observed by the regulator violates the regulation. Exemptions, however, make some non-compliance legal, forcing the regulator to make two determinations: (1) whether a particular firm is complying with the regulation; and (2) if not, whether the firm is exempted. The cost of this second determination is a cost of having exemptions.

Distinguishing exempt entities or transactions from regulated entities or transactions is often difficult. Regulated entities have an incentive to disguise their behavior so that they appear to qualify for an exemption even when they do not.\textsuperscript{37} The regulator in turn incurs additional costs to discover and prevent any cheating.\textsuperscript{38} One way to discourage cheating is to make the exemptions more detailed to eliminate any "wiggle" room. But the more complicated the regulator makes the exemption to prevent unintended firms from benefiting, the greater the compliance cost for firms to determine on which side of the uncertain line between exempted and regulated they fall. These costs are far from trivial, as the following two examples illustrate.

\textsuperscript{37} \textsc{Brock} \& \textsc{Evans}, supra note 5, at 93. From the standpoint of the regulated entity, this strategic behavior is similar to the strategic behavior discussed in the previous section. The difference is one of illegality. In the previous case, the entity is modifying its behavior so that it actually qualifies for the exemption. In this case, the entity is trying to disguise its behavior so that it appears to qualify for the exemption even though it actually does not.

\textsuperscript{38} If the cheating is not discovered, the benefits produced by the regulation are less than they otherwise would be.
1. An Example: The Regulation of Securities Offerings

Consider first the regulation of securities offerings pursuant to the Securities Act of 1933. The Securities Act imposes filing and disclosure requirements on companies issuing securities, but the Securities and Exchange Commission ("SEC") has adopted several exemptions for relatively small offerings. Securities Act Rule 505, for example, exempts securities offerings of less than $5 million, subject to certain other conditions. Since the availability of the exemption turns on the size of the offering, a difficult enforcement problem arises when a single company engages in multiple offerings. Assume, for example, that a single company sells $4 million worth of securities now and $3 million of a similar security two months later. If those two offerings truly are different offerings, each is less than $5 million and at least one of them could qualify for the Rule 505 exemption. If, on the other hand, this is really only a single $7 million offering, that offering is not exempt. A company's incentive to disguise a single offering as two to obtain the exemption is obvious. But should the two offerings be treated as one or, to use the SEC's terminology, should the two offerings be integrated?

To answer that question, the SEC has developed a five-factor test that focuses on the similarity of the two offerings, but the results have been less than satisfying. The criteria are "nearly impossible to apply" and an American Bar Association subcommittee concluded that the SEC staff's interpretations of the integration criteria were "difficult to reconcile even when dealing with similar fact situations involving the same subject matter." According to one scholar, the integration criteria "[engulf] securities issuers in a sea of ambiguity, uncertainty, and potential liability."

2. Another Example: Minimum Wage Requirements

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42 The SEC's five-factor test asks whether,
(1) the different offerings are part of a single plan of financing, (2) the offerings involve issuance of the same class of security, (3) the offerings are made at or about the same time, (4) the same type of consideration is to be received, [and] (5) the offerings are made for the same general purpose.
A second example shows that the SEC’s experience is not unique. The Fair Labor Standards Act imposes minimum wage and overtime pay requirements on employers. An individual employee is covered by the Fair Labor Standards Act if the employee himself is engaged in interstate or foreign commerce or producing goods for transportation in interstate or foreign commerce. But, whether or not an employee is directly involved in interstate or foreign commerce, he is still covered by the Act if he works for an “enterprise engaged in commerce or in the production of goods for commerce.” To be covered, an enterprise must have an annual gross sales of at least $500,000. In other words, enterprises with gross sales of less than $500,000 are exempted from this type of coverage.

This exemption gives larger companies an obvious incentive to split a single, integrated business operation among several legally distinct entities, each with less than $500,000 of sales, in an attempt to qualify for the exemption. To protect against this and to limit the exemption to the small companies it was intended to benefit, the term “enterprise” is defined in the Act to mean

the related activities performed (either through unified operation or common control) by any person or persons for a common business purpose, and includes all such activities whether performed in one or more establishments or by one or more corporate or other organizational units including departments of an establishment operated through leasing arrangements, but shall not include the related activities performed for such enterprise by an independent contractor.

This statutory definition has in turn spawned fifteen pages of interpretive regulations and substantial case law, including a constitutional challenge before the U.S. Supreme Court attempting to determine when entities are sufficiently related to constitute a single enterprise.

D. Third-Party Information Costs

One of the transaction costs of exemptions is incurred by neither the regulated firm nor the regulator, but by parties outside the regulatory

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48 Id.
relationship. Third parties sometimes need to know if a firm is subject to a regulation. If all the firms in an industry are regulated, with no exemptions, third parties incur no cost in making this determination. However, if some firms are exempted, third parties sometimes must incur an information cost to determine if a particular firm is regulated or exempted.

Information costs of this sort most commonly arise when the regulation is intended to protect parties dealing with regulated firms. Assume, for example, that the Consumer Product Safety Commission adopts a regulation requiring all children's toys to comply with certain safety requirements. If no toy-making firms are exempted from these requirements, a toy buyer may assume the toy he is purchasing meets the safety requirements. The toy buyer does not need to examine the toy to determine if it is safe. If some toy manufacturers are exempted, the consumer has a more difficult task. Some of the toys available may not comply with the safety regulations. Before buying a toy, a consumer must determine if the toy he wishes to purchase is manufactured by a regulated firm or by an exempted firm, so he can determine if further safety examination is necessary. If it is not easy to determine whether a particular manufacturing firm is regulated, the buyer may (1) not buy a toy at all; (2) fully inspect all toys, including regulated toys; or (3) inspect no toys and just bear the risk that the toy is unsafe. The option chosen depends on their relative costs, but no matter which choice the toy buyer makes, the exemption has imposed an additional cost on the buyer.

Third-party information costs of this sort usually arise only where the third party deals directly or indirectly with the regulated firm. Others do not usually need to distinguish between regulated and exempted firms. For example, third parties do not ordinarily need to know whether a given firm is subject to pollution controls, even if the third parties benefit from the controls. Knowing whether a firm is regulated or exempted will not affect the third party's behavior. However, third party information costs can sometimes arise even in noncontractual settings like this. Consider, for example, an individual deciding whether to buy a house near a manufacturing plant with a smokestack. The value of the house depends on the pollutants the plant is emitting, and that in turn depends on whether the plant is subject to pollution controls. If, as is probably the case, a home buyer cannot easily determine the amount of pollutants by direct observation, she needs to know whether the plant is regulated or exempted. The

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54 More accurately, if the regulation is adequately policed, the cost to examine the toy outweighs the risk that the toy does not comply with the safety requirements.
55 The costs may be allocated to the sellers if the risk of encountering unregulated toys reduces what the buyer is willing to pay for toys generally. This problem of distinguishing regulated and unregulated firms is an application of Akerlof's problem of the lemons. See George A. Akerlof, The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism, 84 Q.J. ECON. 488 (1970). Regulatory measures, such as requiring toys to be labeled as regulated or exempt, can solve this problem. See, e.g., 17 C.F.R. § 230.502(d) (exemptions from Securities Act registration requirements for securities offerings requiring disclosure to purchasers that the securities purchased have not been registered). However, such solutions themselves have a cost, so the cost of having the exemption is not eliminated.
IV. THE MODIFIED CASE FOR EXEMPTIONS

The discussion in Section III shows that the traditional argument for exemptions is incomplete. The traditional argument is that firms or transactions should be exempted if the cost of regulating them exceeds the benefit, or if, for the exempted group, $\sum_{i=1}^{n} TB_i < TC_i$. This is a necessary condition for an efficient exemption, but it is not a sufficient condition, because one must also take into account the cost of the exemption itself — the transaction costs discussed in Section III. A regulatory exemption increases the net benefit of the regulation by exempting firms whose regulation produces a negative net benefit. The amount of that gain is $\sum_{i=1}^{n} TC_i - TB_i$, where $n$ is the number of exempted firms or transactions. However, a regulatory exemption also reduces the net benefit of the regulation by the amount of the increased transaction costs associated with having the exemption. The exemption is efficient only if the gains it produces exceed these transaction costs.

To determine the gains associated with an exemption, we must first account for the problem of specification error. The gain is not the benefit a perfect exemption might produce in theory, but the actual gain in the real world of false positives and false negatives. When we compute $\sum_{i=1}^{n} TC_i - TB_i$ for the $n$ exempted firms, the $n$ firms are not the firms we would in a perfect world like to exempt, but the firms that actually do slip through the exemption. If the specification error is great enough that the false negatives excused by the exemption dominate the true negatives, we need go no further: the exemption is uneconomic because $\sum_{i=1}^{n} TC_i - TB_i < 0$.

Even if, after considering the false negatives and our inability to exempt the false positives, the exemption produces regulatory gains, one must still account for all the other transaction costs discussed in Section III: specification costs, the cost of strategic behavior, enforcement costs, and third-party information costs. An exemption provides a net benefit only if, for the $n$ exempted firms or transactions,

$$ (\sum_{i=1}^{n} TC_i - TB_i) - S - B - I - E > 0, $$

where $S =$ specification costs,
$B =$ the cost of strategic behavior,
$I =$ third-party information costs, and
$E =$ enforcement costs.

The efficient set of exemptions is the set that maximizes this sum, adding the greatest possible value to the regulation.

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56 In an efficient housing market, the home's market price will be affected by the plant's status, but the market requires information to make that adjustment, so someone still incurs the information cost.
Actually calculating these numbers is not easy or course or, in most cases, even feasible. One cannot accurately calculate many of these costs. But this equation nevertheless can inform policy decisions concerning regulatory exemptions. An exemption is not economically justified unless we account for the transaction costs of the exemption itself.

V. CONCLUSION

The traditional assumption that an exemption is justified if the cost of regulating the exempted group exceeds the benefit is incorrect. The case for regulatory exemptions is more complicated. The traditional view provides only a necessary, not a sufficient, condition for exemptions. The transaction costs of exemptions, such as specification costs, strategic behavior, enforcement costs, and any third-part information costs, must also be considered. A regulatory exemption is economically efficient only if the cost to regulate the exempted firms exceeds the sum of the benefit of regulating the exempted firms and the transaction costs of the exemption.