

SECOND-ORDER BENEFITS FROM STANDARDS

FRANK PARTNOY*

Abstract: This Article contributes to the new governance literature by analyzing how private parties profit from standards. Scholars previously have focused on what I call “first-order” profits from the right to extract rent directly from the ownership or application of standards. But some parties also make “second-order” indirect profits by engaging in some new enterprise not directly related to the value of the relevant standard. For example, an accounting firm can offer lucrative consulting services based on its reputation as a standard bearer. Second-order profits are most substantial for strong form standards, which arise when the government designates a private entity as standard setter and assigns it the task of enforcement and regulation. This Article suggests that the question of whether such privatization is beneficial depends not only on first-order rents, but also on second-order costs and benefits. It considers two examples from the financial markets: over-the-counter derivatives and credit rating agencies.

INTRODUCTION

This Article explores the different ways private parties profit from standards. Recently, scholars have devoted a great deal of attention to public-private partnerships and the costs and benefits of delegating regulatory authority to private entities.¹ One consequence of this shift in governance is that standards increasingly have a private nature. The government designates private standard setters and embodies

* Professor of Law, University of San Diego School of Law. I am grateful for comments from Bill Bratton, Larry Cunningham, Stacey Dogan, Mark Lemley, and Fred Yen.

¹ See generally Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543 (2000) (discussing private participation in governance and implications for administrative law); Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Thought*, 89 MINN. L. REV. 342 (2004) (discussing governance as a collaborative effort between the public and private sectors); Sidney A. Shapiro, *Outsourcing Government Regulation*, 53 DUKE L.J. 389 (2003) (analyzing the impact of private actors' involvements in government regulation on transaction costs).

private standards in law.² Inevitably, these standard bearers seek to profit from the privatization of standard setting.

This Article argues that the literature and policy regarding standards should distinguish between two different types of behavior. First, parties might seek to extract rent directly from the ownership or application of standards. For example, the owner of a standard might extract financial gain by charging other parties to use copywritten material, or the owner might profit by influencing the standard in a particular way. I label this type of direct standards-related activity a "first-order" action. First-order activity relates primarily to the expected income streams associated with the rights to use the relevant standards. In general, first-order activities are direct attempts to monetize the value of the intellectual property associated with standards.

In addition, parties might seek to exploit standards in a second distinct way, by engaging in some new enterprise not directly related to the value of the relevant standard. For example, firms might use standards (1) to exploit informational asymmetries, (2) to profit from regulatory entitlements, (3) to create ambiguities that enable them to extract gains that otherwise would be captured by public entities, or (4) to hold up downstream producers of related products.³ I label these types of indirect standards-related activities "second-order" actions.

I argue that this categorical distinction is useful, and that, although the current scholarly literature focuses on first-order activities, second-order activities are increasingly common. Whereas first-order activities are reasonably straightforward and well understood, second-order activities are more complex. From a policy perspective, the general economic approach to first-order activities is to balance the costs and benefits of standards, in line with traditional antitrust or intellectual property law and economics. Second-order activities present additional difficulties, however, and can generate costs that are not offset by any benefit associated with ownership of the relevant standard.

One area in which second-order actions are particularly important is financial markets. Financial market participants engage in first-order actions, to be sure. For example, the intellectual property rights

² See generally Lawrence A. Cunningham, *Private Standards in Public Law: Copyright, Lawmaking and the Case of Accounting*, 104 MICH. L. REV. 291 (2005) (creating a framework for analyzing private standards "embodied" in public law).

³ See Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking* 4 (May 31, 2006) (unpublished manuscript, available at <http://ssrn.com/abstract=923468>).

associated with accounting standards resemble the rights associated with copyrightable standards in other industries. Organizations seeking profits from generally accepted accounting principles are, in part, seeking the same kinds of expected income streams as organizations seeking to profit from copyright.

However, first-order profits often are small relative to second-order profits. For example, the International Swaps and Derivatives Association ("ISDA") promulgates standards embodied in master swap agreements and related definitions, and profits directly from selling such agreements to end-users of swap products. ISDA member firms profit far more, however, from certain indirect benefits associated with selling derivatives contracts in an unregulated private contracting regime. For example, ISDA member firms benefit more from second-order profits associated with informational asymmetries than from first-order profits associated with the direct value of the relevant property rights.

Similarly, bond credit rating agencies establish standards for rating public debt issues and make those standards available at no direct cost on their websites. It is the second-order benefits, not the first-order benefits, that are the focus of credit rating agency activity. The agencies extract very high economic rents from the outputs of the standardization process, primarily through charging fees to debt issuers, not investors. These fees are high due to regulatory licenses—in other words, the rights of debt issuers to be in compliance with regulations that depend on those agencies' ratings. Credit rating agencies also profit indirectly from the creation of transactions designed to take advantage of various aspects of the promulgated standards.

Financial actors also benefit from second-order profits associated with the ambiguity of standards. Ambiguous financial standards generate little direct value *ex ante*, but the ambiguity is valuable from a second-order perspective, *ex post*. Securities dealers and other financial intermediaries profit from such second-order factors. For example, dealers profit from open-ended language in standard form contracts because such language may be interpreted *ex post* under circumstances that favor the dealers. Similarly, financial gatekeepers can profit from standard form documents because the documents leave important issues open to interpretation or litigation *ex post*.

In sum, the private benefits of standards are indirect in many areas of the financial markets. Participants benefit from standards, not so much by extracting value from the intellectual property value of the standard itself, but by leveraging the use of the standard to capture profits in other aspects of their business.

This analysis suggests a further question: Do financial markets differ substantively from other markets in ways that make second-order activities more important? Or, do second-order activities exist in other areas, such that the analysis of standards in financial markets might inform the analysis of the use of standards in non-financial areas? These are difficult questions. In general, scholarship addressing standards has focused primarily on non-financial standards arising in software, manufacturing, and other technology-driven non-financial businesses. The literature has described and analyzed the intersection between a wide range of private organizations and the intellectual property rights associated with the standards governing those organizations.⁴

In a recent article, Professor Lawrence A. Cunningham examined some aspects of financial markets in seeking to create a comprehensive framework for assessing standards that are promulgated and copyrighted by non-governmental organizations.⁵ In the areas Professor Cunningham considered—including accounting principles, corporation codes, and manuals for stock exchange listings—the actions of financial market participants did not differ markedly from those of participants in other economic contexts. Professor William Bratton also has considered standards in the accounting context, where he has favored rules over principles for a number of reasons.⁶ This Article examines some other ways private actors in the financial markets have developed and profited from standards and explores whether these findings generate any insights for the broader literature on standards.

There are several reasons why financial markets might be different in principle. Financial markets move very quickly, making it difficult to extract first-order value from standards. Although there has been a proliferation of intellectual property rights claims in the financial markets, these rights do not generate a substantial share of

⁴ See generally Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889 (2002) (analyzing intellectual property rules in standard-setting organizations); Janice M. Mueller, *Patenting Industry Standards*, 34 J. MARSHALL L. REV. 897 (2001) (discussing the assertion of patent rights over industry standards created by private parties); Mark R. Patterson, *Inventions, Industry Standards, and Intellectual Property*, 17 BERKELEY TECH. L.J. 1043, 1046 (2002) (arguing that owners of standards that create interoperability "should be allowed to negotiate license fees with the patentee of an invention incorporated in the standard").

⁵ See Cunningham, *supra* note 2, at 293.

⁶ See William W. Bratton, *Enron, Sarbanes-Oxley and Accounting: Rules Versus Principles Versus Rents*, 48 VILL. L. REV. 1023, 1036–37 (2003).

financial actors' profits. Although the amount of money at stake in financial markets is very substantial, perhaps more so than in any other industry, the intellectual property component of standards is relatively small.

The nature of the finance business differs as well. For many technology companies, standards are inextricably bound with the value of the underlying product. For instance, DVD production standards directly affect the ability of the manufacturer to make money selling DVDs. The same is true of software. In contrast, the direct benefits of standards to financial firms are relatively small. For example, the move by the Securities and Exchange Commission (the "SEC") to facilitate securities reporting with eXtensible Business Reporting Language ("XBRL") will benefit analysts and investors directly by reducing the costs associated with analyzing financial statements. However, if moving to XBRL enables firms to profit indirectly by selling securities at higher prices or earning additional fee income, those firms would embrace the new standards even if they were not able to capture any first-order benefits.

Despite the fact that financial markets are somewhat unique, there are some general conclusions one can draw from the second-order actions of financial market participants. In particular, this Article focuses on "regulatory licenses," rights granted by the government to private parties that enable those private parties to determine whether market participants obtain gains or incur costs associated with standards. I argue that the "regulatory license" is a useful concept in other areas of public-private governance outside finance.

Part I explores the differences between first-order and second-order use of standards. It sets forth a framework for analyzing these different aspects of standards and emphasizes the analysis of regulatory licenses. Part II presents some empirical evidence about how participants in certain aspects of the financial markets—in particular, the over-the-counter financial derivatives and bond credit rating businesses—have used standards, with a particular focus on second-order standards.

I. FIRST-ORDER AND SECOND-ORDER USE OF STANDARDS

In this section, I review and assess Professor Cunningham's description of different types of standards. Although Professor Cunningham and I disagree about the relative efficiency of strong form standards, we agree in many areas and I believe his rubric is extremely useful. This section also discusses the theory of "regulatory licenses" and explains why this theory matters to the assessment of standards.

A. Cunningham's Taxonomy of Standard Strength

Various scholars have developed taxonomies of standards. Professor Larry Cunningham has suggested that there are three types of standards, depending on how the standards relate to public law.⁷ Weak form standards make their way into law simply by being mentioned.⁸ For example, a court or legislature might point to private sector standard setters in justifying a particular holding or statute. Semi-strong form standards make their way into law through formal adoption.⁹ A court or government authority might notice that a private standard setter has generated a useful approach or rubric, and might explicitly adopt it. Strong form standards begin as a public pronouncement and then essentially are forced into the private sector.¹⁰ For instance, a court or legislature might explicitly designate a private entity as standard setter and assign the task of government enforcement and regulation to the private entity.

Professor Cunningham has suggested that the class of strong form standards "appears likely to have few members at present, but could become an increasingly appealing government policy option."¹¹ This suggestion deserves careful consideration. In my view, there are potential problems associated with the explicit designation of a private entity as a standard setter.¹²

Specifically, strong form standards effectively give the private standard setter a monopoly. As with any monopoly, the grant tends to reduce the quantity and increase the price of the relevant product. Of course, the cost associated with the grant of monopoly rent might be offset by some benefit. A private standard setter might be superior to a government standard setter, even after accounting for the monopoly. Still, it is important to consider the incentives for private parties to engage in behavior to extract financial gain directly from these grants. Such behavior would fall into the category of first-order activ-

⁷ Cunningham, *supra* note 2, at 297-99.

⁸ *Id.* at 298.

⁹ *Id.*

¹⁰ *Id.* at 298-99.

¹¹ *Id.* at 299.

¹² In Part II, *infra* notes 40-66 and accompanying text, I describe some examples of what I believe are strong form standards in the financial area. Government policy related to strong form standards in these areas has been less than optimal. Both the over-the-counter derivatives and credit ratings businesses illustrate some of the negative effects of strong form standards.

ity. Likewise, strong form standards also might be more likely to generate opportunities for second-order profits, as described below.

Before I discuss these arguments in greater detail, I want to embrace and amplify Professor Cunningham's classification by distinguishing between first-order and second-order profits with respect to each type of standard. One might imagine a two-by-three grid, setting forth six different types of use of standards.

Weak first-order	Semi-strong first-order	Strong first-order
Weak second-order	Semi-strong second-order	Strong second-order

Weak first-order activities generate direct profits from the recognition of standards in statutes or case law, just as semi-strong first-order activities produce profit directly from the public adoption of standards. Weak second-order activities and semi-strong second-order activities leverage their recognition or explicit adoption into new indirect income streams. Likewise, strong first-order activities generate direct monopoly or oligopoly profit from the government-approved private standard, while strong second-order activities in turn leverage that approval into new indirect income streams.

Professor Cunningham provided several examples of how private materials might become embodied in law following the weak form route.¹³ For example, state legislatures might reference valuation books on insured property as a basis for establishing insurance loss payouts.¹⁴ Or, a federal agency might reference medical coding systems as a basis for processing reimbursement requests.¹⁵

Private actors might profit from weak form government adoption of standards in two ways. First, they might charge higher prices or provide a lower-cost product to profit from the enhanced value associated with the standard. For instance, reference valuation books that are used to establish insurance loss payouts are more valuable than those that are not. Likewise, medical coding systems that are a basis for processing reimbursement requests are more valuable than those that are not. A first-order response by private actors whose standards are referenced in public law would be simply to charge purchasers of their product a higher price.

¹³ Cunningham, *supra* note 2, at 334.

¹⁴ *Id.*

¹⁵ *Id.*

Alternatively, or in addition, these private parties might take second-order action. For example, they might use the same labels or marketing approach for *all* of their products to convince customers that *all* of their standards had been designated by the government—not just the ones that were mentioned in statutes or cases. The beneficiaries of weak form standards also might try to leverage the references into ancillary businesses, such as consulting services regarding insurance payouts or medical reimbursements. Or they might threaten competing suppliers of similar products with litigation.

As a policy matter, governments should take into account the potential for both first-order and second-order actions when deciding whether to reference a particular private actor's standards. Put another way, policymakers should consider the cost not only of the increased price of the referenced standard, but spillover cost as well. It might be the case that the benefits associated with a weak form standard exceed the costs, but it is important to account for all costs.

The distinctions between first-order and second-order actions with respect to semi-strong standards also are important. For example, some legislative bodies have adopted private building codes formally, rather than merely referring to them. Likewise, some federal statutes direct agencies to incorporate private standards. Professor Cunningham cites the Consumer Product Safety Act, which directs the Consumer Product Safety Commission (the "CPSC") to adopt private standards when possible and consistent with regulatory objectives.¹⁶ The CPSC explicitly incorporated standards promulgated by private organizations in its regulations governing the testing of bicycle helmets.¹⁷

How might a private party whose helmet testing standards were adopted in semi-strong fashion achieve some financial gain? It might simply charge more for its product. A safety test by this company might cost substantially more than it had before the standards were adopted in regulation. In addition, the private party might seek to charge bicycle helmet manufacturers for advisory services regarding compliance with testing. Or it might seek to profit from increased sales related to its motorcycle helmet standards. Again, the distinction between behavior directed to achieving direct benefits and behavior intended to produce indirect benefits is important; government agen-

¹⁶ *Id.* at 337.

¹⁷ See 16 C.F.R. § 1203.3 (2006) (incorporating by reference the draft ISO/DIS 6220-1983 standard from the International Organization for Standardization and recommended practices from the Society of Automotive Engineers).

cies should account for both when adopting standards promulgated by private parties.

Finally, with respect to strong form standards, Professor Cunningham points to the Public Company Accounting Oversight Board (the "PCAOB") as an example of the anointment of a non-governmental strong form standard setter.¹⁸ PCAOB accounting standards are incorporated into federal law, and the federal government has designated the PCAOB as the exclusive source for standard setting in the accounting area.

However, the PCAOB is an unusual entity: it is a private not-for-profit corporation funded by federal government-mandated fees paid by public companies and their auditors.¹⁹ Its annual budget is approved by the SEC and consists largely of personnel expenses.²⁰ Its operating revenues are derived almost entirely from the fees paid pursuant to federal government mandate.²¹ In many respects, the PCAOB acts as an instrumentality of the federal government, although it is not formally recognized as a federal agency.²² In sum, because the PCAOB is a unique agency, it is not an exemplar for purposes of analyzing the costs and benefits of strong form standards. Arguably, it is not a strong form example at all.

Moreover, from a standards perspective, it is of crucial significance that the PCAOB has adopted a policy that it will not bring copyright infringement claims with respect to the publication, distribution, or sale of its accounting standards that are incorporated into federal law.²³ In other words, the PCAOB's standards are publicly available for free, not because it is a strong form type of standard setter, but because it is a standard setter that makes its standards available for free pursuant to its unique relationship with the federal gov-

¹⁸ "To date, PCAOB appears to be the sole example of a governmental standard setter Congress designates as residing outside the formal boundaries of the federal government." Cunningham, *supra* note 2, at 333.

¹⁹ See Public Company Accounting Oversight Board Home Page, <http://www.pcaobus.org/> (last visited Oct. 5, 2006); see also 15 U.S.C. § 7211 (Supp. II 2003) (establishing the PCAOB as a non-profit corporation); *id.* § 7219 (describing how the PCAOB is funded).

²⁰ See, e.g., PUB. CO. ACCOUNTING OVERSIGHT Bd., 2006 BUDGET, at 2 (2006), available at http://www.pcaobus.org/About_the_PCAOB/Budget_Presentations/2006.pdf; see also 15 U.S.C. § 7219(b) (providing that the PCAOB's budget must be approved by the SEC).

²¹ PUB. CO. ACCOUNTING OVERSIGHT Bd., 2005 ANNUAL REPORT, at 27 (2006), available at http://www.pcaobus.org/About_the_PCAOB/Annual_Reports/2005.pdf.

²² See 15 U.S.C. § 7211(b) ("The [PCAOB] shall not be an agency or establishment of the United States Government.").

²³ See Policy Regarding Use of PCAOB Materials, <http://www.pcaobus.org/Copyright.aspx> (last visited Oct. 5, 2006).

ernment. Moreover, somewhat ominously, the PCAOB explicitly states that it might amend this policy from time to time and that it continues to assert copyright in its standards.²⁴

Imagine the following: Suppose Congress decides to reduce the mandatory fees paid to the PCAOB, and provides instead that the PCAOB can generate revenue from the sale of its copyrighted accounting standards. Would the same alleged benefits associated with the PCAOB's status as an allegedly strong form standards setter accrue?

Probably not. Instead, the PCAOB would have overwhelming incentives to engage in both first-order and second-order activities with respect to its accounting standards. First, it likely would charge private parties for copies of its accounting standards. Those costs might not be substantial, but the PCAOB probably would not make such standards available for free, as it does now. The PCAOB would be particularly unlikely to provide its detailed policy statements and questions and answers at no cost.²⁵

Second, the PCAOB also would have incentives to leverage its copyright into other areas. It might charge firms for advice as to how they could comply with particular standards. Or it might offer to certify financial statements as being in compliance with PCAOB standards, for a fee. If the government enacted a system in which the PCAOB determined whether a company was in compliance, the PCAOB's determinations would be far more valuable. In such a regime, the PCAOB would be able to charge substantially higher fees. From a policy perspective, these second-order actions seem more problematic than first-order actions. It is one thing for an entity to extract some extra fee income based on the fact that the government deemed it to be a useful standard setter. It is quite another for the entity to extract additional value from the government's grant of regulatory entitlements. These second-order activities are, at least arguably, tainted by self-interest and perverse incentives.

²⁴ *Id.*

²⁵ For an example of the PCAOB's policy statement and question and answer resources, see Policy Statement, Public Company Accounting Oversight Board, Policy Statement Regarding Implementation of Auditing Standard No. 2 (May 16, 2005), http://www.pcaobus.org/Rules/Docket_008/2005-05-16_Release_2005-009.pdf; Public Company Accounting Oversight Board, Staff Questions and Answers: Auditing Internal Control over Financial Reporting (July 27, 2004), http://www.pcaobus.org/Standards/Staff_Questions_And_Answers/2004/06-23.pdf.

The thought experiment is useful in pointing out why any benefits accrue from the PCAOB's provision of standards. It is not because the PCAOB is a strong form standard setter; rather, it is because the PCAOB is a unique quasi-public, quasi-regulatory entity that has agreed not to exploit its copyrights, at least for now.

Additionally, it is important to note that, in assessing the costs and benefits associated with strong form standard setting, the private or public nature of the relevant entity (or, if it is a hybrid entity, the extent to which it has private versus public attributes) is of crucial importance. Private for-profit entities are most likely to seek second-order profits. Private not-for-profit entities still have incentives to pursue these profits, but they are more likely to consider the public interest (or perhaps their own idiosyncratic non-profit incentives). Public entities, on the other hand, have an entirely different set of government-driven incentives.

Professor Cunningham says that, in his tripartite categorization of standards, copyright is not recognized in the strong form area, while it generally is recognized in the weak form area.²⁶ Semi-strong form copyright issues are on intermediate ground, and copyright might be recognized in some instances.²⁷ According to this formulation, the PCAOB does not assert copyright to its standards because it is a strong form standard setter. However, in reality the PCAOB does not assert copyright for unique reasons that have little to do with its purported strong form status. As the above discussion has illustrated, the scope of copyright enforcement does not necessarily decline as the strength of standard setting increases. Indeed, because the potential profitability of standards copyrights increases as the strength of standard setting increases, the relationship might be precisely the opposite.

B. Regulatory Licenses

In other works, I have discussed some of the issues relating to government endorsement of standards in the context of credit rating agencies, although without the benefit of standard-setting labels.²⁸ Specifically, I have argued that government statutes and regulations

²⁶ Cunningham, *supra* note 2, at 313.

²⁷ *Id.* at 314.

²⁸ See generally Frank Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, in FINANCIAL GATEKEEPERS 59, 64–68 (Yasuyuki Fuchita & Robert E. Litan eds., 2006) [hereinafter Partnoy, *Credit Rating Agencies*]; Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619 (1999) [hereinafter Partnoy, *Financial Markets*].

give an oligopoly right to a handful of credit rating agencies to determine whether private actors are in compliance with regulation.²⁹ I labeled this right a "regulatory license."³⁰ I now want to attempt to generalize this concept.

If an applicable regulation imposes costs, and a favorable private action eliminates or reduces those costs, then private actors will be able to sell regulatory licenses to enable market participants to reduce their costs. Private actors will sell regulatory licenses until the marginal cost of acquiring and transferring regulatory licenses exceeds the marginal benefit from payment by market participants. If the applicable regulation enables only a few private actors to acquire and transfer regulatory licenses, or if it imposes barriers to entry or other costs on new entrants, the private actors will acquire market power in the sale of regulatory licenses, and will be able to earn oligopoly profits.

The regulatory license view can be generalized to any area in which the regulator privatizes a function by incorporating the standards of a fixed number of private actors into substantive regulation. For example, suppose the government is concerned about the quality of a consumer product.³¹ Individuals, who also are concerned about quality, might undertake search costs to determine the quality of each product they are considering purchasing, but it is more efficient for groups of purchasers to pay a certifier to assess the products. There is a free-rider problem associated with the nature of the certifier's assessment as a public good, although this problem can be solved in part by having sellers pay the certifier directly and then pass the cost of certification on to the purchaser.

Suppose a private company has been formed to certify product quality. Purchasers will rely on the company's ratings only to the extent they are accurate and credible. Over time, if the company publishes accurate assessments, it will accumulate reputational capital, which will lead buyers to trust the assessments in making their purchases. If the company is able to sustain the accuracy of its assessments, it will increase its stock of reputational capital.

Suppose the cost to the company of assessing or certifying a product is equal to $C < M >$. Further suppose the expected benefit to purchasers from obtaining a rating is equal to B , and the aggregate cost to purchasers of certification is equal to $C < P > = \sum C < p >$, $p=1$,

²⁹ See Partnoy, *Credit Rating Agencies*, *supra* note 28, at 60.

³⁰ See *id.* at 82; Partnoy, *Financial Markets*, *supra* note 28, at 623, 681.

³¹ The following discussion and hypothetical are drawn from Partnoy, *Financial Markets*, *supra* note 28, at 683-85.

... , n (where n = number of purchasers). Purchasers, either directly or indirectly through sellers, will pay for a rating if B is greater than $C < P >$, and the company will provide a rating at a price between B and $C < M >$. In a competitive market, the company will be able to charge only $C < M >$. If the company is a monopolist, it will be able to charge B .

If the company is constrained by its reputation and has no regulatory licenses, the quality of the product should be closely related to the ratings. If it is not, B will decline, and purchasers will not be willing to pay for the ratings (alternatively, the rater will not be able to charge a price high enough to cover its costs).

Now suppose the government promulgates a rule stating that purchasers can buy only products with a particular level of certification (for instance, Grade A). At first, the government considers supplying certifications on its own, but eventually decides that a private entity would be able to certify at a lower cost and without the burdens of a government bureaucracy. Initially, the government does not impose limitations on who may provide a certification, but due to safety or other prudential concerns, the government decides to allow only approved assessors to certify the products.

These decisions by the government have two effects. First, they give approved certifiers market power in providing their assessments. This will result in an increase in the cost of certification, $C < P >$, which will be passed on to purchasers in the form of an increase in the cost of the product. There will be deadweight losses of the type typically associated with monopoly or market power. The severity of these losses and the magnitude of the increased costs will depend on the number of approved certifiers and the severity of the barriers to entry.

Second, the government's decision to delegate the certification of products removes some of the reputational constraints on the certification business. The assessing company need not worry excessively about its reputation and, consequently, may give certifications to lower quality products (in other words, the portion of the value of B attributable to the certifier providing information may decline), so long as it is able to retain its status as a government-approved certifier. Now, the limitation on the certifiers' behavior is not the certifiers' reputation in the market; it is the certifiers' reputation—or level of influence—with the government.

Suppose sellers would like to begin selling lower quality products, which have lower costs. In a competitive market, the certifying company could not risk certifying such products because of concerns about losing reputational capital. Now, in contrast, the company can

certify lower quality products, so long as the government does not revoke its status as an approved certifier. If there are close substitutes to the products that the government would be unlikely to detect, then the rating company can give those products a positive assessment, at a higher rating cost.

As the number of regulations depending on approved certifications grows, approved raters become both more powerful and more profitable (in other words, *B* increases, despite the fact that the assessors are providing little informational value). The assessors' reputations may tarnish, so long as their approval status remains. Eventually, political pressure on regulators, perhaps from public outcry over the deterioration in product quality, may lead to regulatory changes, although if the approved raters can earn sufficient profits to pay the regulators to maintain approval status—indirectly through campaign contributions, or even directly through bribes—certifiers may be able to remain in a position of profit and power indefinitely.

The above theory of regulatory licenses may explain the growth of certain types of certification agencies (for instance, religious dietary certifiers), and may indicate some of the risks of privatizations in which the government remains involved in monitoring the private entities. On the other hand, the theory also is consistent with the view that certain private raters are able to accumulate and retain reputational capital and provide a valuable certification function over a long period of time without governmental regulation (for instance, *Consumer Reports* magazine or the *Zagat* restaurant guides).

Regulatory license theory suggests that one of the drawbacks to standard strength is the increased cost associated with the grant of regulatory licenses. Put simply, weak form standard setters receive weak regulatory licenses, whereas strong form standard setters receive strong ones. Of course, strong form standard setters might generate other benefits. However, to the extent regulatory licenses matter, strong form standards are likely to generate greater costs, particularly if the regulatory licenses are awarded to private non-profit entities.

This last point is significant. The type of entity that is setting standards matters crucially to optimal standard designation policy. If the government designates a quasi-public or public entity to set standards, it will not need to control that entity's behavior explicitly. For example, if the entity agrees not to enforce its copyright in the relevant standards, as the PCAOB has done for now, that agreement may be enough to keep the entity in check. The task is more difficult for private entities, although the government might impose the same kinds of restrictions on private standard setters that it has sought from the

PCAOB. In exchange for receiving a regulatory license, the standard setter would have to agree to certain restrictions on its ability to exploit the standards. Specifically, the government might attempt to restrict the entity's ability to extract second-order profits from the standard. The entity's reward for creating quality standards would be limited to the first-order rents it could extract from charging for access to the standards. Alternatively, the government could subsidize the entity and require that it provide standards-related information at no cost.

One prominent example, which fits regulatory license theory, at least in part, is Underwriters Laboratories, Inc. ("UL").³² In November 1901, some insurance companies established UL to provide uniform testing of various types of appliances and to generate credible information about hazards associated with the tested products.³³ UL began providing labels for approved products, and, by the early 1920s, consumers were relying on these labels in assessing the safety of products. Once companies realized consumers were depending on the UL labels, they began developing products with a view to secure the UL label.³⁴

As of the 1920s, UL was a non-profit organization that was not supported by regulation and did not favor particular manufacturers; consequently, its labels were credible.³⁵ By the 1990s, UL had become a giant in safety certification, employing 3900 people and testing 75,000 products; the UL mark appears on more than six billion new products each year.³⁶

Reputation alone, however, does not entirely explain UL's role, and, in certain respects, the regulatory license view is more accurate. In recent years, regulations have been promulgated that relate to the

³² This discussion is drawn from Partnoy, *Financial Markets*, *supra* note 28, at 685–86.

³³ See Harry Chase Brearly, *A Symbol of Safety: The Origins of Underwriters Laboratories, in REPUTATION: STUDIES IN THE VOLUNTARY ELICITATION OF GOOD CONDUCT* 75, 77–79 (Daniel B. Klein ed., 1997) [hereinafter *REPUTATION STUDIES*].

³⁴ Once the manufacturer of the product becomes involved in securing the rating, there is ample opportunity for bribery and collusion. Brearly describes one instance of an excited manufacturer giving each of four engineers a \$1000 watch after his product passed the required tests. *Id.* at 82. The engineers notified the UL President, and "after a stormy hour in the private office, the manufacturer left, carrying his four watches, and never thereafter attempted to repeat his offense." *Id.*

³⁵ Brearly noted, "As a result, the labels of Underwriters' Laboratories mean something. They are recognized as incontrovertible evidence that the goods which bear them really possess the qualities of their rating." *Id.* at 83.

³⁶ See Daniel B. Klein, *Trust for Hire: Voluntary Remedies for Quality and Safety*, in *REPUTATION STUDIES*, *supra* note 33, at 97, 114–15.

UL mark. For example, one incentive for manufacturers to use the UL mark is insulation against liability.³⁷ Another explanation is that the Occupational Safety and Health Administration ("OSHA") has specified UL (and also the Factory Mutual Research Corporation ("FMRC")) as an authorized independent testing and certifying organization for certain OSHA procedures. Daniel Klein has described this specification as resulting in an "OSHA monopoly" for UL and FMRC.³⁸ More recent OSHA guidelines have opened the business of certifying to "nationally recognized testing laboratories" and have specified how OSHA would approve such laboratories.³⁹

Generally, the impetus for the regulation of raters, including UL, is the same as the impetus for the flexible, market-based regulation that has contributed to the privatization of so many previously public activities and industries in the last fifteen years. However, when the regulator retains the power to approve of raters, such privatization may lead to second-order inefficiencies of greater consequence than those of the original, inefficient regime. Second-best economics suggests that privatization may be sub-optimal for various reasons. Regulators, wittingly or not, may try to assist the raters in a manner that creates market power and moral hazard for raters. Subsidization of raters, even if indirect, may exacerbate market failure. Purchasers of ratings may face rater oligopolies, monopolies, or the potential of moral hazard. Approved raters are sheltered from new entrants and from foreign competition. This protection eliminates the incentive to maintain quality ratings. Consequently, the regulatory license view suggests that certain activities should not be privatized if markets are to function properly. At a minimum, regulators should account for second-order costs.

II. SOME EXAMPLES FROM FINANCIAL MARKETS

There are numerous examples of each of the categories of standards in the financial markets. A full treatment is beyond the scope of this Article, but it is worth noting that Professor Cunningham's taxonomy fits the financial markets nicely. Professors Cunningham and Bratton have addressed various issues that arise from ownership of

³⁷ See *id.* at 115.

³⁸ See *id.* at 115 n.32.

³⁹ See Definition and Requirements for a Nationally Recognized Testing Laboratory, 29 C.F.R. § 1910.7 (2005); OSHA Recognition Process for Nationally Recognized Testing Laboratories, *id.* § 1910.7 app. A.

weak and semi-strong form standards in the financial markets.⁴⁰ Firms try to appropriate the value of their models, but once the models become public it is difficult. There are numerous examples of private actors trying to capture the value of standards in the financial markets, including a substantial increase in filings for patents on financial innovation and the proliferation of copyright assertions on financial documents (even securities lawyers now assert copyright protection for the complaints they file).

Section 10(b) of the Securities Exchange Act of 1934 gives rise to weak form standards to the extent it refers to private conduct.⁴¹ Industry practice is important in deciding cases. Notions of corporate governance also derive from private conduct. Individual law firms use standard form agreements based on the promulgation of federal regulators.

Semi-strong standards have included, most prominently, generally accepted accounting principles. Other examples include standard form securities documents, merger agreements, industry standards of conduct, suitability standards, and certain standardized data services, including private and exchange-based indices (such as ISDAFIX). It is unclear whether this expansion of protection adds value, but that is a topic beyond the scope of this paper.

Instead, this paper focuses on strong form standards. There are more strong form standards than one might first imagine. Indeed, corporate law itself arguably consists of a set of strong form standards, whereby the legislature empowers individual corporations by setting forth a set of default rules, but permitting private parties to supplant those rules with their own terms. Every company is in some sense its own strong form standard setter.

The two types of standards I wish to focus on in this Article involve over-the-counter ("OTC") derivatives and credit rating agencies.

A. *OTC Derivatives*

I have written elsewhere about the International Swaps and Derivatives Association ("ISDA") and the OTC derivatives market, and I will not repeat that level of detail here.⁴² ISDA is a global trade asso-

⁴⁰ See generally Bratton, *supra* note 6; Cunningham, *supra* note 2.

⁴¹ See Securities Exchange Act of 1934 § 10(b), 15 U.S.C. § 78j(b) (2000).

⁴² See FRANK PARTNOY, *INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS* 46–47, 52, 61, 142, 148, 151–52, 154, 397–98 (2003) [hereinafter PARTNOY, *INFECTIOUS GREED*]; Frank Partnoy, *ISDA, NASD, CFMA, and SDNY: The Four Horsemen of Derivatives Regulation?*, in *BROOKINGS-WHARTON PAPERS ON FINANCIAL SERVICES* 213, 213–25

ciation that represents the leading market participants in the OTC derivatives industry.⁴³ ISDA promulgates standards and standard-form documentation for the vast majority of OTC derivatives transactions. In terms of notional value, ISDA is the source of standards related to a greater value of transactions than any other standard-setting organization.⁴⁴

Some evidence suggests that ISDA standards are extremely weak. ISDA is not referenced in any federal statute,⁴⁵ and is mentioned in just three regulations, for purposes that have little to do with the primary source of the value of ISDA standards.⁴⁶ The statutory exemptions for OTC derivatives do not mention ISDA, although ISDA played a prominent role as a lobbyist pushing for these exemptions.⁴⁷

Ultimately, Congress cemented the status of OTC derivatives as unregulated and outside federal jurisdiction in the Commodity Futures Modernization Act of 2000 (the "CFMA").⁴⁸ The CFMA does not

(Richard Herring & Robert E. Litan eds., 2002); Frank Partnoy, *The Shifting Contours of Global Derivatives Regulation*, 22 U. PA. J. INT'L ECON. L. 421, 429-42 (2001).

⁴³ See International Swaps and Derivatives Association, Inc. Home Page, <http://www.isda.org> (last visited Oct. 5, 2006).

⁴⁴ According to the Bank for International Settlements, there was approximately \$285 trillion notional worth of total OTC derivatives contracts outstanding as of the end of 2005. See Bank for International Settlements, Table 19: Amounts Outstanding of Over-the-Counter (OTC) Derivatives by Risk Category and Instrument, <http://www.bis.org/statistics/otcder/dt1920a.pdf> (last visited Oct. 14, 2006).

⁴⁵ A search of the United States Code electronic database on LEXIS on September 7, 2006 revealed no references to ISDA or the International Swaps and Derivatives Association.

⁴⁶ See 12 C.F.R. § 956.6 (2006) (providing that standard ISDA language may be used to satisfy certain documentation requirements for Federal Home Loan Bank use of derivative instruments); 26 C.F.R. § 1.1441-4(a)(3)(ii) (2006) (mentioning an ISDA agreement as an example of a "master agreement that governs the transactions in notional principal contracts between the parties"); *id.* § 1.6041-4 (same).

⁴⁷ PARTNOY, *INFECTIOUS GREED*, *supra* note 42, at 152-54. Specifically, although OTC derivatives can have the characteristics of "securities" or "futures," those instruments are regulated under separate statutory regimes. See, e.g., 7 U.S.C. § 1a(31) (2000) (defining "security future"); *id.* § 2(a)(2) (establishing the Commodity Futures Trading Commission); 15 U.S.C. § 77b(a)(1) (2000 & Supp. II 2003) (defining "security"). Indeed, regulatory competition between the SEC (which regulates "securities") and the Commodity Futures Trading Commission (which regulates "futures") led to an extended turf battle over OTC derivatives, which resulted—not in some optimal regulatory regime, as might have been predicted by advocates of regulatory competition—but rather in a heated dispute and stalemate, which was resolved in part when Congress banned certain derivatives contracts as illegal and unenforceable. See 7 U.S.C. § 6(a) (2000).

⁴⁸ Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, § 1(a)(5), 114 Stat. 2763, 2763A-365 (codified in scattered sections of the Commodity Exchange Act, 7 U.S.C. §§ 1-27 (Supp. II 2003)); see also S. 2697, 106th Cong. (2000); H.R. 4541, 106th Cong. (2000).

reference ISDA, however. Instead, because it simply exempts OTC derivatives contracts from regulation, it leaves these instruments subject to private contracting, however such contracting might arise.

Notwithstanding the absence of ISDA from the CFMA, one might argue that Congress implemented a de facto strong standards regime, relying on ISDA, based on ISDA's dominance at the time. Judicial reliance on ISDA standards would support such a strong interpretation. More than eighty published cases have relied on ISDA in reaching decisions.⁴⁹

Moreover, numerous statutes and regulations rely on certain provisions that are incorporated into standard form OTC derivatives counterparty contracts, even though they do not explicitly reference ISDA. For example, ISDA standard form documents provide that OTC derivatives payments will be netted and will fall outside the bankruptcy estate in the event of a counterparty default.⁵⁰ Such reliance on ISDA terms, albeit not explicitly reliance on ISDA, is a sign that ISDA standards are very strong.

In analyzing ISDA-related standards, the strength of the standards matters less than the strength of the copyright. In this case, ISDA's copyright assertion is extremely strong. It charges fees for all of its documents and restricts access to information related to those documents.⁵¹ In providing information, ISDA strongly favors its dealer members over the public and end users.⁵²

Although ISDA generates significant first-order profits from the sale of its standardized documents, the most substantial profits related to ISDA standards have been the second-order profits of its members. ISDA members benefit from being able to sell OTC derivatives in a largely unregulated market, and not only because they receive contrac-

⁴⁹ There were eighty-five cases referencing ISDA based on a search of the LEXIS Federal & State Cases, Combined database on September 25, 2006.

⁵⁰ For excellent discussions of the relationship between ISDA contracts and bankruptcy rules, with particular references to netting, see Franklin R. Edwards & Edward R. Morrison, *Derivatives and the Bankruptcy Code: Why the Special Treatment?*, 22 YALE J. ON REG. 91, 97 (2005); Edward R. Morrison & Joerg Riegel, *Financial Contracts and the New Bankruptcy Code: Insulating Markets from Bankrupt Debtors and Bankruptcy Judges*, 13 AM. BANKR. INST. L. REV. 641, 649-52 (2005).

⁵¹ See International Swaps and Derivatives Association, Inc., Online Bookstore, <https://www.isdadocs.org/cgi-bin/indexbookstore.html> (last visited Oct. 5, 2006).

⁵² See ISDA Home Page, <http://www.isdadocs.org> (last visited Oct. 5, 2006) (follow "Membership" hyperlink) (describing information available exclusively to ISDA members).

tual preferences in the event of bankruptcy. Members also receive very substantial benefits associated with standard form documentation.⁵³

ISDA's role has been controversial, and some courts have found that ISDA's approach benefited dealers to the detriment of their customers.⁵⁴ However, my point here is not to decide the policy question of whether the benefits from ISDA's special place as a standard setter are worth the cost.⁵⁵ Instead, my point is that this policy question hinges crucially on second-order benefits and costs. Of course, ISDA directly profits from selling standard-form documents, and those first-order profits certainly are relevant. Unlike the PCAOB, ISDA is funded voluntarily by dealers, and its first-order profits help it sustain a costly operation. However, ISDA develops and uses standards primarily because of their second-order effects. The debate should focus on ISDA's much more substantial second-order profits and costs, and the extent to which these profits and costs affect both ISDA's dealer members and their customers.

B. Bond Credit Rating Agencies

A second category of financial market standards relates to bond credit ratings. Bond credit rating agencies provide ratings divided into categories, based on the perceived credit quality of the rated financial instrument.⁵⁶ Generally, a bond rating was intended to indicate the likelihood of default or delayed payment for that bond.⁵⁷ As with many ratings, the historical practice was to assign the letter A or the number 1 to the highest grade, with A1 signifying a high, if not

⁵³ See Stephen J. Choi & G. Mitu Gulati, *Contract as Statute*, 104 MICH. L. REV. 1129, 1139–42 (2006). ISDA's record in developing standard-form documents has been subject to extensive criticism, including pointed remarks by Alan Greenspan, one of the most prominent and ardent supporters of OTC derivatives markets. See, e.g., Richard Beales et al., *Banks Face Further Regulatory Pressure on Derivative Trading*, FIN. TIMES, Sept. 25, 2006, at 1.

⁵⁴ See, e.g., *Eternity Global Master Fund Ltd. v. Morgan Guar. Trust Co. of N.Y.*, 375 F.3d 168, 178 (2d Cir. 2004) (reversing judgment dismissing plaintiff's claim that ISDA documentation was ambiguous); *Caiola v. Citibank, N.A.*, 295 F.3d 312, 328–29 (2d Cir. 2002) (rejecting defendant's claim that a disclaimer in its ISDA documents barred plaintiff from suing based on defendant's misrepresentations).

⁵⁵ I have argued elsewhere that there are reasons to be concerned about the negative effects of ISDA's monopoly. See PARTNOY, *INFECTIOUS GREED*, *supra* note 42, at 151–55, 397–98.

⁵⁶ See TIMOTHY J. SINCLAIR, *THE NEW MASTERS OF CAPITAL: AMERICAN BOND RATING AGENCIES AND THE POLITICS OF CREDITWORTHINESS* 36–39 (2005) (providing a summary of bond rating symbols and definitions).

⁵⁷ *Id.* at 7.

the highest, grade.⁵⁸ Relative rankings, in descending order, would be B or 2, then C or 3, and so on.

The dominant rating agencies (for instance, Standard & Poor's and Moody's) use similar scales, with each agency employing both ordinal (for instance, A, B, C) and cardinal (for instance, Aaa, Aa, A) ratings.⁵⁹ Each agency uses three subcategories for each broad rating category (for instance, three levels of "As," three levels of "Bs," and so on).⁶⁰

Credit rating agencies can earn first-order and/or second-order profits. Before the 1970s, most agencies earned only first-order profits, by selling their ratings to investors.⁶¹ During this time, the credit rating industry was small and not particularly profitable. Nor was there extensive regulation related to credit ratings.

In contrast, during the period from 1973 to the present, credit ratings have been incorporated into hundreds of rules, releases, and regulations, in various substantive areas, including securities, pension, banking, real estate, and insurance regulation. The cascade of regulation began in 1973 when, following the credit crises of the early 1970s, the SEC adopted Rule 15c3-1, the first securities rule formally incorporating credit ratings and thereby approving the use of certain credit rating agencies as Nationally Recognized Statistical Ratings Organizations ("NRSROs").⁶² Rule 15c3-1 set forth certain broker-dealer "haircut" requirements, and required a different haircut for securities based on credit ratings assigned by NRSROs.⁶³

Since 1973, there have been credit-rating dependent rules and regulations promulgated under the Securities Act of 1933, the Securities Exchange Act of 1934, the Investment Company Act of 1940, and various banking regulations. NRSROs even have been cited in federal district court opinions. I have documented the growth of ratings-based regulation elsewhere.⁶⁴

I will not attempt to summarize all of the legal rules that depend on NRSROs. Instead, the chart set forth below gives some indication of

⁵⁸ *Id.* at 36–39.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ See generally Partnoy, *Financial Markets*, *supra* note 28.

⁶² 17 C.F.R. § 240.15c3-1 (2006).

⁶³ *Id.* § 240.15c3-1(c)(2)(vi).

⁶⁴ See generally Partnoy, *Credit Rating Agencies*, *supra* note 28; Partnoy, *Financial Markets*, *supra* note 28; Frank Partnoy, *The Paradox of Credit Ratings*, in RATINGS, RATING AGENCIES AND THE GLOBAL FINANCIAL SYSTEM 65, 65–95 (Richard M. Levitch et al. eds., 2002).

the number and location of these rules. There are both statutes and regulations that depend on NRSRO credit ratings, in various areas.

	<i>CFR</i>	<i>Statute</i>
Agriculture (Title 7)	3	0
Banks and Banking (Title 12)	34	3
Commerce and Trade (Title 15)	0	0
Commodity and Securities (Title 17)	30	2
Education (Titles 20, 34)	1	1
Transportation (Titles 23, 49)	1	1
Telecom (Title 47)	0	1
Total	69	8

Where do credit rating agencies fit within Professor Cunningham's regime? One argument is that because the rating agencies are not explicitly mentioned in statutes or regulation, their standards are weak form. On the other hand, although the agencies are not mentioned directly, the federal government has explicitly designated a group of entities, the NRSROs, as the standard setters. It is up to the NRSROs to decide ratings and to publish their methodologies. Through the no-action process, the SEC has effectively anointed a handful of agencies as strong standard setters.

There is extensive evidence that the NRSROs have extracted very substantial first-order and second-order profits.⁶⁵ Rating agencies have operating margins in the range of fifty percent, and Moody's Corporation, the one NRSRO with publicly traded shares, has a market capitalization of roughly \$20 billion and financial ratios that suggest it is far more profitable than any financial publisher.⁶⁶

The NRSROs' second-order actions are arguably of even greater cost. First, the NRSROs face serious conflicts of interest: they continue to be paid directly by issuers, they give unsolicited ratings that at least potentially pressure issuers to pay them fees, and they market ancillary consulting services related to ratings. Credit rating agencies increasingly focus on structured finance and new complex debt products, particularly credit derivatives, which now generate a substantial share of credit rating agency revenues and profits. With respect to these new instruments, the agencies' standard setting has created and sustained a multi-trillion dollar market.

⁶⁵ See Partnoy, *Credit Rating Agencies*, *supra* note 28, at 64-68.

⁶⁶ *Id.* at 66.

As with the discussion of OTC derivatives, my point here is not to resolve the policy debate about credit rating agencies. Instead, my point is that in the taxonomy of standards, the crucial benefits and costs are second-order, not first-order. Indeed, credit rating agencies are an example of standard setters that began in a first-order regime, profiting directly by charging investors, and then switched to a second-order regime, profiting indirectly by charging debt issuers (and in other ways). The shift was a dramatic one: it generated oligopoly rents for the agencies, derived from the benefits associated with regulatory licenses, and it led to policy challenges that did not exist in the previous first-order world.

CONCLUSION

There is no single lens through which to examine standards. The strength of the standard matters, but so does the strength of any attendant copyright. Likewise, whether the standard setter is a private or public entity, or some hybrid thereof, will affect the calculus of expected costs and benefits. As the new governance literature suggests, private entities can be more efficient and public-private partnerships can generate synergies, but one must keep in mind that private entities naturally will seek profits, including monopoly profits from the exploitation of standards.

In this Article, I have attempted to contribute to the literature by arguing that scholars should distinguish between two types of actions parties might take in exploiting standards: first-order actions resemble typical monopoly rents, whereas second-order actions resemble a kind of tying, and can generate much greater profit, as well as serious conflicts of interest and regulatory challenges. Second-order incentives are especially acute when standards are strong and the standard setter is a purely private actor, as is the case with ISDA and credit rating agencies. Regimes that give private entities regulatory licenses while adopting strong form standards are likely to generate substantial costs. One might conclude that these costs are justified, but the analysis should focus on what I have called second-order activities.