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Focusing More on Outputs and on Markets: What Financial Regulation Can Learn from Progress in Other Policy Areas

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Abstract: This paper draws on the progress that has occurred in other areas of regulation -- specifically, the "cap-and-trade" program to control SO2 emissions; spectrum auctions; and "dedicated-access-privilege" programs for fisheries -- to suggest that financial regulation would benefit from an expanded focus on outputs and on markets.

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I. Introduction

Despite three decades of "deregulation" and "regulatory reform" in the U.S., financial regulation -- the regulation of banks and other depository institutions,[1] of insurance companies, of pension funds, of securities and other financial instruments, of the markets in which these instruments trade, and of corporate disclosure and governance -- continues to cut a wide swath through the U.S. economy.[2] This persistence and pervasiveness is understandable, if not always excusable, because financial institutions and processes are often complex and difficult to understand by the parties that rely on them.

Regardless of the reasons for regulation, however, public policy should always be looking for opportunities to make regulation more efficient and effective. In this regard, financial regulation and financial regulators (and policy makers) have much to learn from progress in other regulatory policy areas. Though the hold of "command-and-control" regulation remains a powerful force across the regulatory spectrum, there are noticeable signs of progress in a few areas: a movement away from an inputs-oriented process and toward a focus on outputs and a greater reliance on

[1] Unless otherwise indicated, references to "banks" in this paper will refer generally to all depositories and thus will include savings institutions and credit unions, as well as commercial banks.

[2] The recognition of this persistence and pervasiveness is not meant to belittle the regulatory progress that has been made. There is no question that the removal of interest rate ceilings on most bank deposits, the lifting of most restrictions on the branching of banks, the lifting of the restrictions on banks' securities and insurance activities (and vice-versa), the instituting of "prompt corrective action" for faltering banks, etc., were worthwhile achievements. The point of this paper, however, is that financial regulation should look more broadly for better ways of setting and achieving regulatory goals.

markets. It is these "outputs and markets" regulatory initiatives that warrant greater attention by policy makers for financial regulation.

This paper will discuss a few of these initiatives and why they are important and should serve as role models for change in financial regulation. By contrast, concrete examples of "outputs and markets" initiatives in financial regulation are difficult to find -- indeed, that's a major point of this paper -- but I will identify two reforms that have been suggested (but have never been implemented) as illustrations of the directions in which creative financial regulation could move.

Sections II and III of this paper will establish a framework and vocabulary for discussing regulation and provide examples of successful reforms that are in the "outputs and markets" spirit. Extensive references will be made to environmental regulation, so as to provide useful references that illuminate important points. Section IV will return the discussion to financial regulation and will draw parallels to the earlier examples. Section V offers a brief conclusion.

II. Classifying Regulation

As a prelude to and guide for the discussion of regulation that follows, it will be useful to develop a broad classification scheme for the types of regulation that are observed in the U.S. economy. A useful byproduct that can be distilled from this classification scheme is the realization that there are strong parallels between financial regulation and other types of regulation and thus that the lessons that are being learned in other regulatory areas may well have relevance for financial regulation. A second classification scheme will describe common methods of regulatory implementation.

A. A broad classification scheme for types of regulation.[3]

At first glance, governmental regulation may appear to be an undifferentiated mass of government intervention into the workings of markets. However, it is possible and useful to classify regulation generally into three broad categories:

-- Economic regulation: control over firms' prices, entry, exit, and/or profits;

-- Health-safety-environment regulation: control over firms' production processes, inputs, and/or outputs; and

-- Information regulation: control over the types and formats of information provided by firms.

Though this categorization is not airtight and there are surely ambiguities and fuzzy areas at the boundaries, the framework nevertheless is useful for organizing a discussion of regulation and, in the current context, for drawing the parallels between financial regulation and the other forms of regulation that are found in the U.S. economy. For example, in the category of economic regulation, bank regulators' former ceilings on deposit interest rates or limits on entry or on branching were little different from the fare-setting restrictions that were imposed by the former Civil Aeronautics Board (CAB) on the airline industry. In the category of health-safety-environment regulation, bank regulators' safety-and-soundness requirements that are imposed on

[3] This discussion draws heavily on White (1996a, 1996b).

banks or the Securities and Exchange Commission's (SEC) competency requirements for securities brokers are little different from the Federal Aviation Administration's (FAA) safety requirements that are imposed on the airline industry and its pilots. And in the category of information regulation, the disclosure requirements of the SEC are little different from the Department of Transportation's (DOT) regulation of the fare announcements of the airline industry.

Though the SEC's regulation of corporate governance might be thought to be outside of this broad categorization, the goal of corporate governance regulation -- assuring investors of a fair outcome -- is not all that different from the safety goals of many non-financial regulators, such as the FAA or the Consumer Product Safety Commission (CPSC).

B. Classifying types of regulatory implementation.

At its best, regulation should be aimed at remedying market failures: dealing with market power problems; addressing problems of asymmetric information; and/or dealing with externality/spillover phenomena. Of course, as students of regulation well understand, much government intervention, even when cloaked in the mantle of addressing market failures, is really about rent seeking by interested parties rather than about correcting market failures. Still, even when the political motives are "pure" and well-intended, the execution of regulatory corrective measures may well yield excessively costly outcomes.

"Command-and-control" regulation is a general regulatory mode for dealing with perceived market-failure problems that warrant a policy response. Rather than rely on incentives and the power of harnessing individuals' self-interest, this is an effort by the regulator to impose centrally devised (macro) solutions at the local (micro) level.

Within the ambit of command-and-control regulation, two types of intervention are prominent. A common feature is "technology standards", whereby regulations require that firms adopt specific technologies in order to satisfy the regulatory targets. The second route is that of "performance standards", whereby the regulations instead specify a performance target and then allow the regulated entities to find their best ways to achieve that target.

The environmental policies of the 1970s provide good illustrations. The political recognition that air pollution, for example, was a problem that warranted correction led to the Clean Air Acts of 1970 and 1977 and the creation of the Environmental Protection Agency (EPA). The initial instincts of the engineers and lawyers who set policies for the agency was to insist on "technology standards" -- on specifications of the technologies that individual polluters would have to adopt so as to reduce their polluting emissions.

In essence, this was a focus on inputs. However, for a focus on inputs to be efficient, the regulator would have to possess (and be able to disseminate and enforce) detailed knowledge of the characteristics of the polluting party and of which technology (and at what levels and qualities) would best allow the polluting party to reduce its emissions at the least cost. Such knowledge was unlikely to be in the hands of the regulator. But in its absence, a "one-size-fits-all" technology standard would likely be the regulatory choice, with obvious costs of a poor fit for many of the regulated entities.

A different approach was being suggested at the time: "performance standards". In essence, instead of monitoring inputs and input choices, the regulator would monitor output. If, say, the goal of public policy was to reduce ambient levels of sulfur dioxide (SO_2), the inputs-oriented technology-standards approach would specify the details of the type of equipment that electric utilities and other emitters of SO_2 would be required to install and maintain for each source of emissions. By contrast, a performance-standards approach would specify the quantity of $S0_2$ that each emissions source would be allowed to emit -- perhaps expressed as an emissions rate -- and then leave it to the polluting party to figure out the least costly way to meet that standard.

One can understand the regulatory and political preference for the technology-standard/inputs-control approach. It provides the appearance of a direct assault on the problem, which satisfies political concerns. It offers a direct technological prescription. Further, inputs are often easier for regulators to measure and monitor. Finally, interested parties may be able to exert

political influence that favor the specific inputs that they produce.[4] But it is clear that such an approach is insensitive to costs and, as a consequence, can (and is likely to) be inflexible and costly. At least in partial recognition of the inflexibility and the cost insensitivity, in the environmental area technology standards often gave way to performance standards, as policy makers recognized the superiority of performance standards.

Even performance standards, however, are relatively inflexible, since they usually are insensitive to the relative ease or difficulty (or costliness) with which particular pollutant sources or technologies can meet the specified standards.

A third step in the evolution of regulatory standards was a "bubble" concept. In most instances, a performance standard would specify a positive level of emissions rather than zero. Consequently, if a company had multiple emission (e.g., SO_2 sources within a compact region -- e.g., an "airshed" -- then what would matter (from an environmental perspective) was whether the aggregate of emissions from all of those sources met the standard and not whether the emissions from any individual source met the standard. In essence, one could imagine that all of the emission sources were merged under a glass or plastic bubble, and the regulatory constraint should apply only to the aggregate emissions (or emission rate) rate that emerged from the bubble. This would allow the emitter a further degree of flexibility and of cost reduction: The emitter could meet the overall standards by reducing emissions to a greater extent at those sources for which reductions could be achieved at relatively low marginal costs while reducing less at those sources with relatively high marginal costs of reductions.

These three forms of regulatory controls are currently applied simultaneously in the three important dimensions of regulatory policy that pertain to motor vehicles: safety regulation, pollution control regulation, and fuel economy regulation. In the area of safety regulation, there is a mixture of technology standards and performance standards: Particular types of devices -- e.g., airbags, dual

[4] See, for example, Ackerman and Hassler (1981) for a discussion of the costliness of the political compromises embodied in the standards of the Clean Air Act of 1977 that, in essence, specified electric utilities' uses of particular types of coal as the means for reducing SO_2 emissions.

braking systems, padded dashboard and visors, impact-absorbing steering wheels and columns, impact-absorbing bumpers, etc. -- are specified per vehicle, although performance standards govern exactly what levels of protection the devices must achieve. In the air pollution area, performance standards prevail: Maximum exhaust emission rates for pollutants per vehicle (per mile) are specified. In the fuel economy area, fuel economy standards (miles per gallon) are specified but at the manufacturer-average level (the so-called "corporate average fuel economy", or CAFE standard) for automobiles and (separately) for trucks, which allows a motor vehicle manufacturer to meet the standard by averaging across its (sales-weighted) vehicle sales.[5]

A further step beyond the bubble (or CAFE) approach is to allow companies to trade their requirements among themselves. The next section will discuss three important regulatory examples.

[5] In addition, the CAFE standards have an extra element of flexibility by allowing a limited amount of carry-forward, carry-back allowances across calendar years.

III. Going Beyond "Command-and-Control": Embracing "Outputs and Markets"

The limits of command-and-control regulation, even with the greater flexibility of performance standards and of "bubble" possibilities, are clear. There is still too much inflexibility, too much of an insistence on one-size-fits-all.

However, just as the bubble approach would allow an individual emitter to gain greater flexibility and efficiency (and lower costs) by adjusting emissions across sources, a group of emitters could similarly achieve greater flexibility and lower costs among themselves: The parties with the lower marginal costs of emissions reductions would be able to trade (in return for a monetary payment) their additional reductions to other emitters that have higher marginal costs of reductions. The trades establish a market price for reductions and provide the opportunity costs that emitters can use to decide whether they should devote effort to reducing emissions below the standard (and thus be sellers of their "excess" reductions) or whether such efforts are not worthwhile and those emitters should be buyers. Equivalently, if one thinks of the allowable emissions under the standard as embodying permits, then the low-cost reducers would be selling permits and the high-cost reducers would be buying permits. The aggregate amount of emissions is unchanged, but the aggregate amount of costs associated with the reductions necessary to meet the standard is further reduced by the opportunity for trading across firms.[6]

This important additional flexibility has been added to three noteworthy regulatory programs, which will be discussed below: (a) the "cap-and-trade" system for controlling SO_2 ("acid rain") emissions from electric utilities; (b) the use of auctions for allocating uses of the electromagnetic spectrum; and (c) the use of designated access programs to control overfishing of fisheries.[7]

A. The "cap-and-trade" program for controlling SO_2 emissions.

[6] The first major recognition of this possibility is found in Dales (1968).

[7] The following discussion draws heavily on White (2006b).

The Clean Air Act of 1990 provided the added flexibility for controlling SO_2 (acid rain) emissions by electric utilities.[8] An aggregate national quota for maximum annual allowable SO_2 emissions was established by the Act (to go into effect in 1995), with individual annual quotas ("caps") of emission permits (that collectively summed to the national total) that were allocated to individual electric utilities based on a fraction of their historical emissions. Electric utilities could emit quantities of SO_2 only up to the levels for which they owned permits[9] -- but they could trade permits among themselves. This program has been described as "cap-and-trade" and has been considered to be highly successful as a way of achieving sizable SO_2 emissions reductions at costs that were substantially below the levels that had been forecast prior to the enactment of the Act.[10]

Notice how far environmental policy -- at least in the area of SO_2 emissions -- has come. Rather than the inputs-oriented technology standards that were often favored three decades ago, the cap-and-trade approach focuses on an "output" target -- allowing no more than a specified aggregate annual amount of SO_2 emissions (permits) -- and allows trades among emitters that create a market in the permits and that thus allow efficient reallocations of emission-reduction efforts among emitters, as well as providing a greater incentive for emitters to discover low-cost ways of reducing emissions.[11]

B. Spectrum auctions.[12]

Prior to the 1990s, federal policy with respect to the allocation of the electromagnetic spectrum for broadcasting and communications purposes could be easily classified: It was clearly a "technology standards" version of "command-and-control" regulation. The regulatory problem was

[8] Descriptions of the program can be found, for example, in Joskow et al. (1998), Stavins (1998), Schmalensee et al. (1998), Joskow and Schmalensee (1998), Ellerman et al. (2000), and Raymond (2003, ch. 3). As Hahn (1989) points out, there were earlier instances, on a smaller scale, of this kind of approach in the environmental area.

[9] Enforcement of these limits by the EPA has been quite effective.

[10] See, especially, the discussion in Ellerman et al. (2000).

[11] On this latter point, see, for example, Downing and White (1986).

[12] This section draws heavily on White (2001),

that of dealing with "interference": One party's broadcast transmissions will interfere with a second party's transmissions, if the two are at the same place, time, and frequency band. From the mid 1920s onward, federal regulatory policy for dealing with interference involved the designation of specific broadcast locations, specific frequency bands, specific power limits, specific uses for the broadcast transmissions (e.g., radio, TV, telephone, satellite, etc.), and the specific holder of a license who could use the spectrum at that location and frequency band for that specified purpose.

Prior to the 1980s, where there were competing candidates for a specific license, the Federal Communications Commission (FCC) would hold comparative hearings (which became known as "beauty contests") to determine which candidate was best suited for the specific use designated by that license. This beauty contest format collapsed in the early 1980s when the FCC was swamped with applications for the burgeoning business of providing cellular telephone service. The Congress passed legislation that instead allowed lotteries among pre-qualified applicants. The subsequent large windfalls that transpired when lottery winners were bought out by other companies provoked a political reaction, which led (along with Congress's desire to increase budgetary revenues) in 1993 to legislation that authorized the FCC to design and conduct auctions for cellular telephone spectrum and similar frequency bands.

The spectrum auctions, which began in 1994 and have continued to the present, have raised tens of billions of dollars for the U.S. Treasury while allowing the purchasers/users substantially greater flexibility in use and technology than has been true for the traditional command-and-control spectrum license. The spectrum auction system -- which (like the SO_2 permits) involves a greater focus on outputs (getting the spectrum into the hands of those who place the highest value on it) and on markets -- is considered a highly successful innovation in the way that spectrum is allocated.[13]

C. Dedicated-access-privilege programs for overfished fisheries.[14]

[13] Discussions of the auctions can be found, for example, in McMillan (1994), McAfee and McMillan (1996), Cramton (1997, 1998), and White (2001).

[14] This section draws heavily on White (2006b).

As fishing technologies have improved (better boats and engines, better nets and tackle, etc.), the threat -- and reality -- of overfishing of open-ocean fish stocks by commercial fishing fleets has grown. As of 2005, the National Marine Fisheries Service (NMFS) reported that, of the 251 fish stocks whose status could be ascertained by the NMFS, 73 (29%) were overfished, subject to overfishing, and/or approaching an overfished condition.[15] These stocks include such well known fish categories as cod, haddock, flounder, hake, sea scallop, monkfish, red snapper, grouper, black sea bass, conch, yellowfin tuna, marlin, sailfish, and albacore.

With overfishing, the stock of available fish declines because too few fish remain for replenishment. Perhaps the most dramatic is the story of the U.S. Atlantic cod fishery. The cod fishery catch peaked in 1980 at 118 million pounds but then declined severely. In 2004 the cod catch was only 16 million pounds, less than 14% of its peak level 24 years earlier.

Where fisheries are recognized to be overfished, the NMFS has often tried to restrict the size of the catch (so as to allow replenishment) by setting a target limit for the annual catch and then trying to meet this target by instituting restrictions on fishermen's use of inputs -- the essence of the technology standards version of command-and-control regulation. These limitations have included limits on the number of calendar days during which a fishery is open for fishing; limits on the type of gear that can be used while fishing; limits on the size or type of vessel that can be used in fishing; limits on the number of one-day trips that boats can make into the fishery; and limits (licenses) on who can do the fishing.

These input limitations -- especially the limits on the number of calendar days for fishing -- have led to "fishing derbies" or "races for the fish", in which fishermen try feverishly to maximize the amount of fish harvesting that they can accomplish within the limited time period available to them.[16] Further, where the restrictions have taken the form of limits on gear and vessels, fisherman

[15] The NMFS issues annual assessments of the state of U.S. fisheries. The report for 2005 was issued on June 20, 2006 and can be accessed at: http://www.nmfs.noaa.gov/docs/Report_text_FINAL3.pdf.

[16] In addition to the sheer inefficiency of such "derbies", the frenzied pace also increases accidents among fishermen as well as accelerating accidents to and losses of fishing gear and vessels.

ingenuity and technological improvements have often foiled and overcome the limiting intent of the restrictions. Together with the frenzied derbies, the result is likely to be an aggregate exceeding of the target catch. Such overages often lead to yet tighter restrictions.

The "poster child" for this process was the contraction of the Alaska halibut season. From an open season of over 150 days in the early 1970s, the season length shrank to only 47 days by 1977 *and then collapsed to an average of only 2-3 days per year between 1980 and 1994*.[17] Similarly, the collapse of the surf clam fishery in the Mid-Atlantic region caused a progressive shortening of allowable fishing time until, in 1990, surf clam vessels were permitted to fish *only 6 hours every other week*.[18]

At the heart of the overfishing problem is the absence of property rights in the fish until they are caught. Unlike the standard model for agricultural production -- that of the owner-occupier farmer who owns the land, tills the soil, cultivates the crops, harvests the crops, and brings them to market -- the open-seas model for fishing provides the individual fisherman/harvester with no such ownership of the harvesting environment. Instead, the open seas generally provide open access to all on a first-come, first-served basis.[19] In essence, the open seas are a watery "commons" and thus are susceptible to "the tragedy of the commons".[20]

The recognition of this absence-of-ownership problem has led to a few regulatory programs in the U.S. (and more abroad) that are an alternative to the NMFS's command-and-control limitations on inputs. Instead, these programs -- which are variously described as "dedicated-access-privilege" (DAPs) or "individual fishing quotas" (IFQs) -- adopt an "output" focus, which is often supplemented by markets. An annual "total allowable catch" (TAC), which will allow for adequate replenishment, must be established by the regulator (in the U.S., the NMFS). Percentage

[17] See, for example, NRC (1999, pp. 71-72, 304-307), Gates (2005), and Leal (2006).

[18] See, for example, Wang (1995).

[19] Even after the U.S. extended its exclusive economic zone (EEZ) to 200 nautical miles in 1976, access to fisheries within the EEZ generally remained open to U.S. fishermen.

[20] Hardin (1968).

allocations of the TAC must then be allocated among fishermen in some fashion. Although auctions (following the spectrum example) might seem to be a natural method, they are not used in the U.S. and are rarely used abroad. Instead, following the SO_2 model, individual allocations (IFQs) are based on historical fishing patterns, and/or there is a delegation of the allocation process to local groups or communities (who then decide on individual allocations among their members). The IFQ holder then has a quasi property right, which is often transferable (and thus markets are brought into the picture).[21]

There are seven fisheries under federal management in the U.S. that currently use this "output" (TAC) allocation system for limiting fish harvests.[22] In addition, TAC allocation systems are in widespread use in New Zealand and Australia and have been used in some fisheries by Canada, Iceland, the Netherlands, Norway, Greenland, Japan, Chile, Russia, and Estonia. The experiences with these TAC allocation systems have generally been favorable.[23]

[21] And, as was true for the SO_2 program, enforcement of the IFQ limits is essential.

[22] These are the Alaska pollock, Alaska halibut, Alaska sablefish, Alaska king crabs, Pacific whiting, South Atlantic wreckfish, and Atlantic surf clam/ocean quahog fisheries. The Gulf of Mexico red snapper fishery is scheduled to implement an IFQ program in early 2007. Wyman (2005) identifies three additional fisheries that were under international or state management that, as of 2002, were using output allocation systems.

[23] The results for the U.S. are reviewed by the NRC (1999, ch. 3 and App. G), and favorable reviews can also be found in Iudicello et al. (1999) and Leal (2000, 2002, 2005, 2006). The NRC (1999, ch. 3 and App. G) provides details on the experiences of New Zealand (see also Newell et al. (2005)) and Iceland and provides a bibliography on other countries' experiences.

IV. Financial Regulation

As was noted in the Introduction, financial regulation covers a broad range of institutions, instruments, markets, and processes. And across this range, command-and-control regulation continues to be the norm. Often regulations are "technology standards" and input-focused, such as the requirement that the bonds held by banks cannot be below "investment grade" or that short sales of stock can only occur on an "uptick" (or on a zero-plus uptick) or that the CEOs of publicly traded companies must personally attest to the accuracy of their companies' financial statements. Sometimes the regulations are more like "performance standards", such as the minimum capital requirements (as a percent of assets) that banks and other depositories, insurance companies, and broker-dealers must meet, where the institutions are given flexibility (e.g., invest in higher quality assets or reduce the size of liabilities) in how they meet the requirements.

One is hard-pressed, however -- or, at least, this author is hard pressed -- to find examples of financial regulation that would qualify for the "outputs and markets" orientation of the regulatory examples discussed above. Indeed, I am aware of none.

However, so as to forestall the claim that financial regulation is so different from other kinds of regulation (which it surely is not, as was argued in Section II) that the "outputs and markets" orientation is simply not relevant, I will offer two past suggestions for changes in specific pieces of financial regulation that would have brought them into the "outputs and markets" framework.[24] It is noteworthy that neither suggestion has been embraced by regulatory policy. The first concerns a piece of bank regulation: the Community Reinvestment Act (CRA) of 1977. The second concerns a piece of SEC regulation: the SEC's little-known regulation of the bond-rating industry since 1975.

A. A "cap-and-trade" system for the CRA.[25]

[24] These are the only two proposals of which this author is aware. I welcome suggestions for additions to this list or for examples of actual financial regulations in place that embody the "outputs and markets" orientation.

[25] This section draws heavily on Klausner (1995).

The Community Reinvestment Act (CRA) of 1977 requires banks[26] to "meet the credit needs of the local communities in which they are chartered consistent with the safe and sound operation of such institutions."[27] The CRA requires federal bank regulators to assign each bank a CRA rating of "outstanding", "satisfactory", "needs to improve", or "substantial noncompliance". These ratings are based largely on the bank's record of lending in the low- and moderate-income neighborhoods within the area in which the bank operates. Although low CRA ratings carry no direct consequence, bank regulators are required to take the ratings into account when a bank or its holding company applies to charter a new bank, establish a new branch, relocate, or merge with or acquire another bank. Enforcement of the CRA occurs through "compliance" examination and supervision.

The CRA is clearly in the model of "command-and-control" regulation. The initial mode of enforcement was more focused on bank efforts and was thus inputs-oriented and in that sense much like a technology standard. In the mid 1990s bank regulators revamped CRA enforcement, so as to emphasize actual volumes of lending and its dispersion; in that sense, regulators were embracing a performance standard.

In 1995 Michael Klausner, a Stanford Law School Professor, proposed a "cap-and-trade" system for banks' CRA obligations, which was consciously modeled on the SO_2 cap-and-trade system. Under Klausner's proposal, a bank's annual CRA quota would be defined specifically -- for example, as a dollar amount that was a specified percentage of its assets or its deposits -- in terms of loans to residents, businesses, and projects in the bank's low-income neighborhoods that were originated and/or bought and held by the bank. This obligation could be transferred to other lenders, and thus a market in these obligations could develop. Banks with higher costs originating and/or holding such loans could seek other lenders (which need not be banks) with lower costs and pay

[26] The CRA covers commercial banks and savings institutions, but not credit unions.

[27] Further discussion of the CRA, including critiques, can be found, for example, in White (1993, 2000, 2002b), Macey and Miller (1993), and Klausner (1995). It is important to note that the CRA is a community-based lending obligation and is independent of the Equal Credit Opportunity Act of 1974, which prohibits discrimination in lending on the basis of race, color, religion, national origin, gender, marital status, or age.

them to acquire the former's obligations. The aggregate amount of such lending would be satisfied at lower aggregate costs than is incurred under the current administration of the CRA.

Klausner's suggestion has never been implemented.

B. An "outputs" orientation for the SEC's regulation of the bond rating industry.[28]

In 1975, the SEC proposed minimum capital (net worth) requirements for broker-dealers and wanted those capital requirements to be related (inversely) to the quality of the assets held by a broker-dealer. For assessing the quality of a broker-dealer's bond assets, the SEC wanted to use the ratings issued by leading bond rating firms (such as Moody's, Standard & Poor's, and Fitch). In this respect it was following the lead of federal bank regulators, who in the 1930s had begun relying on ratings for judgments about the safety of bonds in banks' portfolios.[29]

Whose ratings should the broker-dealers heed? This question had not been adequately addressed by the bank regulators, who had made vague references only to "recognized rating manuals" (and apparently everyone involved understood that these references were to Moody's, S&P, and Fitch). But what was to prevent the bogus "XYZ" rating firm from offering to provide AAA ratings for the bonds of any company that was willing to pay a suitable price to XYZ? And what was to prevent a broker-dealer from claiming that the XYZ's ratings were "recognized"?

To deal with this problem, the SEC created a new regulatory category -- "nationally recognized statistical rating organization" (NRSRO) -- and immediately "grandfathered" Moody's, S&P, and Fitch into the category. Over the next 25 years, between 1975 and 2000, the SEC designated only four additional rating firms as NRSROs, and by 2000 mergers among the new firms and with Fitch had reduced the number of NRSROs back to the original three.

In essence, though the SEC's NRSRO designation had dealt with the "whose ratings?" problem, it had now created an artificial regulatory entry barrier that protected the incumbent

[28] This section draws heavily on White (2002a, 2002-2003, 2006a, 2006c).

[29] State insurance regulators had also followed the bank regulators' lead when they used bond ratings for the determination of insurance companies' capital requirements, starting in the 1940s.

NRSROs and that made entry into the bond rating business more difficult (though not impossible). Since other financial regulators had adopted the SEC's NRSRO category to solve their "whose ratings?" problems, a broad array of regulated financial institutions were now *required* to heed the ratings of this (literally) handful of "anointed" bond raters when these institutions considered buying bonds for their own portfolios; and thus the bond issuers would now focus their attention on the incumbent NRSROs as well.

Compounding this entry barrier was the lack of transparency in the SEC's methods: The SEC never defined the characteristics of a NRSRO, and applicants for NRSRO status could only submit a written request and then wait indefinitely -- sometimes for years -- for a response from the agency's staff. Even when the SEC staff did grant NRSRO status to an applicant, it would do so through a "no action" letter, which promised that the Division of Market Regulation would not recommend enforcement action to the full Commission against any broker-dealer that used the applicant's ratings for determining its capital requirements. The SEC didn't even issue a press release at these times (and additionally insisted in the no-action letter that the applicant not market itself as a NRSRO).

In 1997 the SEC proposed a set of criteria for designating a NRSRO. Unfortunately, but not surprisingly, the criteria focused largely on the input characteristics of a bond rating company (e.g., "adequate staffing, financial resources, and organizational structure...systematic rating procedures...extent of contacts with the managements of issuers...internal procedures to prevent misuse of nonpublic information...") -- as well as insisting (as a "Catch 22") that a bond rating company achieve "national recognition" in order to be designated as a NRSRO. Fortunately, the SEC never finalized these proposed criteria.

In 2001 (as well as 2002 and 2006), this author proposed two different routes for NRSRO regulation. The best route would be to abandon the NRSRO category entirely (and have the financial regulators cease their delegations of their safety judgments to a handful of bond rating

companies[30]) and thus allow financial markets participants to make their own judgments as to which ratings by which rating companies could be trusted.

However, this first route was recognized to be a deregulatory pipedream, and a second route was also proposed: The NRSRO designation would be retained, but the SEC would have to cease being an artificial (and opaque) barrier to entry. Instead, the SEC should establish a transparent process for judging applicants and reviewing incumbents that uses criteria based on *outputs* -- a firm's efficacy in predicting bond defaults -- which is the primary characteristic of ratings about which the financial markets care.

This output orientation for NRSRO regulation has never been acted upon.[31]

[30] Note that this delegation of safety judgments to a handful of bond rating companies is not the same as the principle of relying on (impersonal) markets that has been advocated.

[31] In 2005 the SEC again proposed a set of criteria for NRSRO designation; and again the criteria were focused on inputs. However, in September 2006 new legislation -- the Credit Rating Agency Reform Act of 2006 -- was enacted that may force the SEC to open entry into the NRSRO category but that still focuses on inputs (and that may give the SEC the opportunity, if it is so inclined, to impose instead a rigid model on the bond rating business that will favor incumbents and restrict entry). A discussion of this legislation can be found in White (2006c).

V. Conclusion

An "outputs and markets" orientation would surely be a worthwhile change of direction for financial regulation. The examples from outside of financial regulation discussed above -- the SO_2 cap-and-trade program, the spectrum auctions, and the fishery designated access programs -- provide successful role models.

I have described specific suggested changes that could be made in two important pieces of financial regulation that would bring them within this "outputs and markets" orientation. There are surely more areas of financial regulation that could similarly be brought within this framework. I urge regulators and policy makers to think creatively to make such changes a reality.

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