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An Economic Analysis of the SEC's
Nationally Recognized Statistical Rating Organization (NRSRO) Standard

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*The most important single policy is to keep the barriers to competition at a minimum.
Nothing raises prices faster or slows the pace of innovation as quickly as walling off
firms and markets from actual or potential rivalry.*

—Paul Samuelson

The Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University is dedicated to advancing knowledge of the impact of regulation on society. As part of its mission, RSP conducts careful and independent analyses employing contemporary economic scholarship to assess rulemaking policy from the perspective of the public interest. Thus, this analysis of the U.S. Securities and Exchange Commission's (SEC's) *Nationally Recognized Statistical Rating Organization (NRSRO) Standard* does not represent the views of any particular affected party or special interest group, but is designed to evaluate the effect of the standard on overall consumer welfare.

This analysis of the current SEC standard—which establishes Nationally Recognized Statistical Rating Organizations—proceeds, as the title suggests, from an economic perspective. An economic perspective implies that the constitutional and legal analysis is minimal. Many others have already furnished legal analysis, which are part of the public record; however, comparatively little economic analysis has been conducted.

1 Introduction

Currently introduced legislation¹ in the United States House of Representatives seeks to correct a 1975 ruling by the U.S. Securities and Exchange Commission, which established a purported duopoly in the credit ratings services industry through the SEC's designation, "Nationally Recognized Credit Rating Organizations." Through a series of subsequent regulations (such as net capital requirements for broker/dealers, investment quality standards for mutual funds, and so on), the NRSRO designation has come to have a great deal of significance in the investing industry.

Given the slow rate at which new rating organizations have been admitted, on its face the SEC's 1975 ruling appears to restrict entry.² If the NRSRO designation operates as a

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¹ *Credit Rating Agency Duopoly Relief Act of 2005*, HR 2990, introduced June 20, 2005, by Mr. Fitzpatrick of Pennsylvania.

² Currently, only five credit rating agencies hold the SEC's NRSRO designation: Moody's, Standard & Poor's (a division of The McGraw-Hill Companies), Fitch Inc., Dominion Bond Rating Services (Canada), and A.M. Best. For many years, only Moody's and Standard & Poor's held the NRSRO designation, and

barrier to entry (creating, in effect, a duopoly or oligopoly), then it should leave a distinct imprint on the companies who furnish credit ratings services under the NRSRO standard. One should see, for example, high prices, reductions in the quantity of services supplied to the industry (as compared to the outcome under full competition where barriers to entry are minimal), with the result that incumbent firms (i.e., those holding the NRSRO designation) earn super-normal profits. This paper evaluates:

- a) whether the duopoly characterization is plausible;
- b) the effects of barriers to entry and possible correctives thereto; and
- c) to what extent HR 2990 resolves the issues identified.

After this introduction, a brief and simple excursion into the economic theory of monopoly follows. This necessary step lays the foundation for the remainder of the analysis. We apply the theoretical foundation to the largest firms in the credit rating industry, looking for telltale signs of monopoly using publicly available financial data. As we will see, the financial evidence suggests that a duopoly/oligopoly may exist. With economic efficiency as a standard, some basic suggestions follow for improving the industry. Finally, the analysis concludes with some brief comments on how well HR 2990 succeeds in addressing the economic issues identified.³

2 Theory

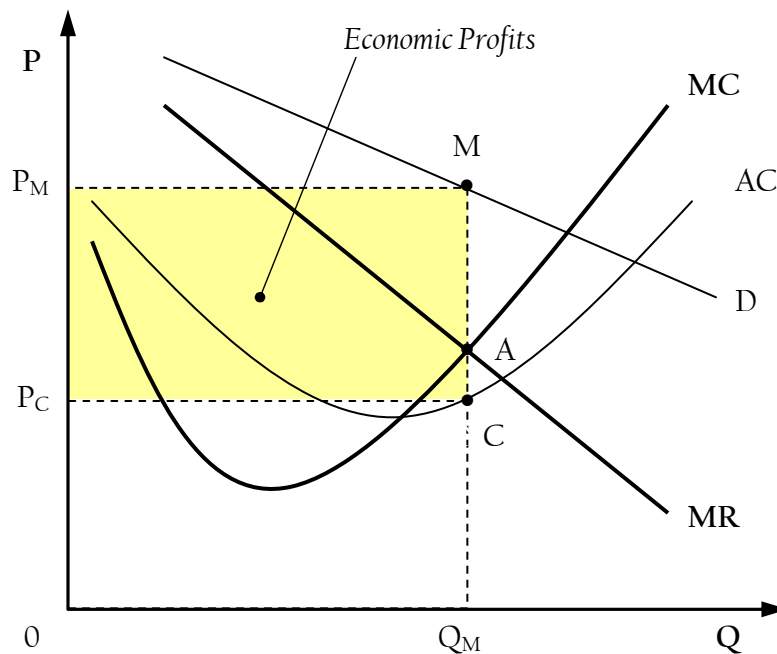
At the outset, it is important to recall that the monopolist follows the profit maximization condition that her counterparts do in the competitively organized industries. That is, the monopolist, like the competitive firm, continues producing (that is, keeps adding to her production costs by increasing output), until the increased revenue from higher output just offsets her increased costs—that is, until marginal revenue (MR) equals marginal cost (MC). The crucial difference for the monopolist is that instead of being a price taker, she is a price setter; that is, she faces the entire industry demand curve rather than just a small portion of it since, by definition, the monopolist is the only supplier.⁴

even today, the two firms reportedly still hold about four-fifths of the market for credit rating services. Over the years, other firms have been designated NRSROs, but have merged or otherwise left the market. See the SEC's Concept Release, "Rating Agencies and the Use of Credit Ratings under the Federal Securities Laws," especially note 3. <http://www.sec.gov/rules/concept/33-8236.htm>

³ Of course, economic efficiency is not the only or perhaps even most important criterion for making a policy decision. Political and social concerns might enter, as might considerations of equity, for example. However, without the economic criteria, we risk making those other decisions on a less-informed basis.

⁴ Although the theoretical part of this analysis uses the term "monopoly," the analysis and results do not change appreciably if the industry is organized along duopolistic or oligopolistic lines. The chief difference is that with more than one supplier (in duopoly there are two, and in oligopoly there are more than two), each supplier faces only a part of the total industry demand curve. The important similarities remain, however; namely, that each firm can influence market conditions (because of restricted competition), and can, therefore, earn economic profits (rents).

Figure 1
An Industry with Barriers to Entry and Economic Profits



In Figure 1, at point A, marginal revenue equals marginal cost.⁵ Tracing down from A to the x-axis gives us the most profitable quantity of goods (Q_M) for the monopolist to produce. Similarly, tracing upward from A to the demand curve (point M) and then across to the y-axis, gives us the price (P_M) at which this most-profitable quantity sells. One important point remains; that is, the point where Q_M crosses the average cost curve (AC) at point C. Tracing leftward from C to the y-axis tells us the average unit cost of producing Q^* (or, P_C). Thus, her total costs of production are described by the rectangle, $0P_C CQ_M$ (or, algebraically, by $P_C \times Q_M$).

Similarly, the rectangle $0P_M M Q_M$ (or $P_M \times Q_M$) gives the monopolist's total revenue. Since profits are the difference between a firm's total revenues and its total costs, the monopolist earns profit equal to the shaded rectangle ($P_C P_M M C$). As Figure 1 is drawn, the monopolist earns what economists call "economic profits" or rents—that is, returns

⁵ If this were a competitive industry, characterized by many suppliers, each individual firm would face a perfectly elastic (flat) demand curve at the price that corresponds to the intersection of MC and AC. Because the competitive firms are price takers in the competitive case, the demand curve and marginal revenue are identical. That is, no supplier's action can affect the market price in the perfectly competitive world. Given free entry and exit, any attempt to raise P above the competitive level invites competitors to enter, while pricing below the competitive level induces losses. Also, any change in quantity by any one supplier changes his revenue by an amount equal to the per unit price (P). Thus, $P=MR$ in the perfectly competitive case.

exceeding what is economically necessary to keep the factors of production (capital, labor, and land) employed in this industry instead of in alternative employments.

3 Applied Theory

Properly speaking, the credit ratings industry under the NRSRO designation is not a monopoly since there is more than one supplier. However, it appears to share characteristics of a duopoly or oligopoly and thus the general theoretical framework still applies, including the observation that industries characterized by barriers to entry (such as an oligopoly) tend to earn rents, or economic profits.⁶

To evaluate whether the dominant credit rating agencies earn economic profits, consider the data presented in Figure 2, which plots six years worth of return on assets data.⁷ Figure 2 also shows the returns on assets for two relatively similar firms engaged in publishing and information distribution (Dow-Jones and the Washington Post Co.) as well as figures for U.S. manufacturing to provide points of comparison.⁸

Since 2000, Moody's and Standard & Poor's have earned average annual returns on assets of 37% and 39% respectively over the six-year period. This compares to the average return on assets over the same period earned by U.S. manufacturing firms of less than 5% per year, and for Dow-Jones and the Washington Post Company of 10% and 6% respectively.⁹

Over this same period, ratings revenues from Moody's Investor Services (MIS) division¹⁰ contributed an average of more than 80% of the parent company's revenue stream (the remainder coming from investment research and credit consulting services), and the ratings core of the MIS division contributed nearly all of the firm's operating income. Results of McGraw-Hill's Financial Services division¹¹ are similar if less dramatic. S&P

⁶ Although higher-than-competitive prices and sub-optimal quantities are features of monopolistic industries, they are difficult to observe in practice without the reference point of prices and quantities from a similar but competitive industry. Moreover, price need not be the deciding criterion of monopoly or imperfect competition since many firms have a measure of discretion in determining prices. An alternative criterion, therefore, for detecting monopoly or oligopoly is whether a firm (or firms) consistently earns above-normal profits—profits that in a more competitive market would be competed away by new entrants.

⁷ The remaining competitors hold small shares of the overall credit rating services industry.

⁸ The data in Figure 2 begin in 2000, because Moody's was spun off from Dun & Bradstreet that year. In addition, returns on assets, rather than returns on equity, are used because Moody's had negative shareowners' equity for the most of the period except 2004. Return on equity and return on asset figures are linked in any case through the firm's leverage ratio. See Figure 2 for data sources.

⁹ Dow-Jones and the Washington Post were chosen as information and publishing firms operating in competitive environments. While traditional print publishing may be an industry in decline, the relatively steady financial performance of these two firms offers some evidence against that conclusion. Moreover, their performances are largely consistent with other competitive industries.

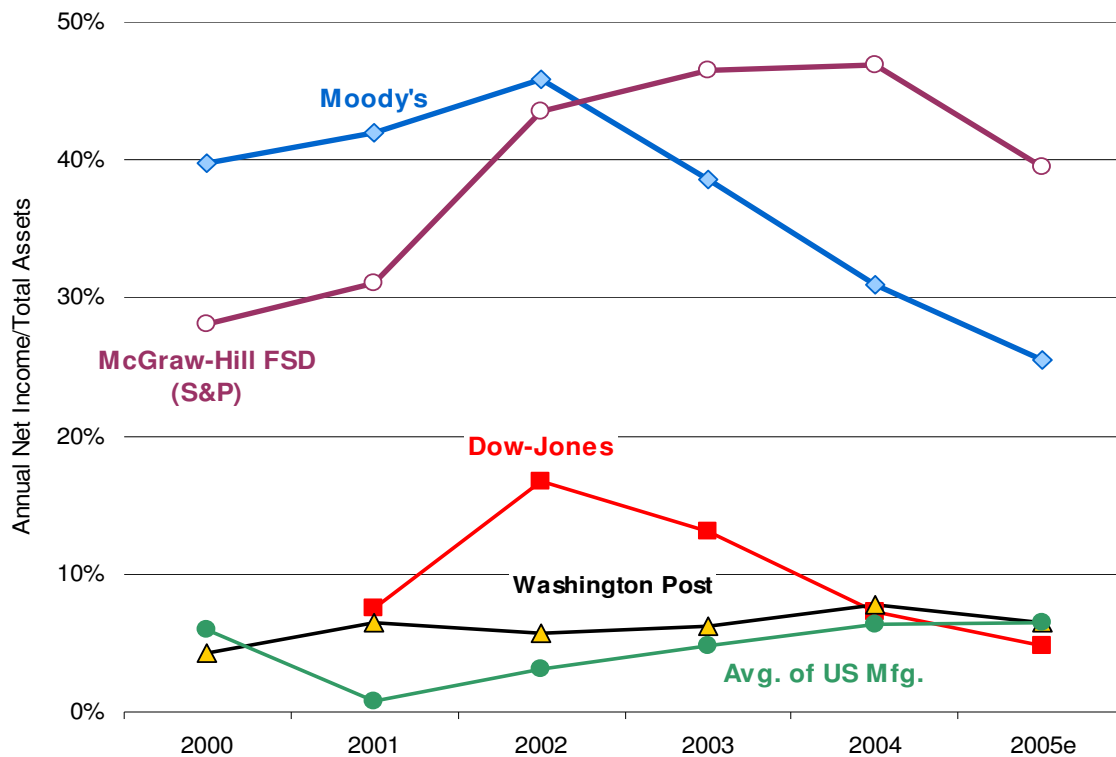
¹⁰ Moody's Investor Services division provides credit ratings services as well as investment research. Revenue and operating income data by division taken from the company's 10-K and 10-Q reports.

¹¹ "The Financial Services segment operates under the Standard & Poor's brand as one reporting unit and provides credit ratings, evaluation services, and analyses globally on corporations, financial institutions,

contributed roughly a third of the parent's average annual revenue, and more than 60% of its annual operating profit over the six-year period. Interestingly, the recent increase in NRSRO designated firms coincides with declines in Moody's and S&P's profitability.¹²

Figure 2

Comparative Returns on Assets, 2000 to 2005



Notes:

- a) Data sources, Company 10-K Filings and Annual Reports to Shareholders, various years. Average ROA of U.S. Manufacturing from Census Bureau's *Quarterly Financial Report* (Table 1.0), various years.
- b) Dow-Jones reported net loss in 2000.
- c) Moody's returns based on consolidated results (apportioning based on contributions of Investor Services Division, makes ROA slightly higher).
- d) McGraw-Hill Financial Services Division (S&P) results pro-rated based on Operating Division results reported in footnotes to 10-K and 10-Q. Interest expenses apportioned based on reported depreciation expenses; income taxes apportioned based on operating contribution of Financial Services Division to Consolidated Operating Income.
- e) 2005 estimates based on annualized half-year results reported in 10-Q, and first quarter of Census QFR for U.S. Manufacturers.

securitized and project financings, and local, state and sovereign governments.” (From the McGraw-Hill 2005 10-K report, p. 54). Data on the share contributed by ratings services was not available.

¹² Dominion became an NRSRO in February 2003 and A.M. Best in March 2005. The decline might also stem from secular factors, including economic recession. Weak macroeconomic performance seems unlikely, since the most recent recession ended in 2002, and the declines in Figure 2 occur after this date.

It is important to stress that these observations cover only a limited time and as such must be viewed with caution. Moreover, the data only provide some evidence to support the inference that barriers to entry may have been effective. These data are not, by themselves, conclusive evidence. Nevertheless, it is instructive that the data (limited as they are) point clearly in the direction that theory suggests; namely, that barriers to entry in this case seem to be an effective means of increasing profitability, as compared to more competitive industries.

4 Resolving Issues the NRSRO Standard Creates

The epigraph that opens this study is from Samuelson's principles text, *Economics* (14th ed.), the textbook that has introduced most undergraduates to economics. His statement, taken in context with the NRSROs, suggests that the way to bring economic efficiency to this industry is to remove the SEC's artificially constructed barriers to entry (i.e., to remove the NRSRO designation). The most straightforward solution would be to open the field to all potential entrants. This approach rests on the recognition that most credit ratings users are sophisticated investors who are capable of evaluating the relative quality of the information they are receiving.

However, such a change could prove disruptive during the transition as the industry adjusts to a different mode of operation. Moreover, free entry could invite less-scrupulous providers to enter. While the first objection is no doubt true (though the duration of the adaptation phase is open to question), the second objection is less salient if one accepts that users of credit ratings are, in the main, sophisticated investors (such as pension fund managers, investment bankers, and so on).

If, however, concerns persist especially in connection with less-sophisticated users, such concerns could be addressed if the SEC were to operate an information clearinghouse on behalf of the various credit rating organizations and credit ratings users. The clearinghouse would collect data on (a) ratings and ratings accuracy of the credit rating firms, and (b) the general methodologies each firm uses to arrive at a given rating. One motivation behind a clearinghouse would be to equalize the amount of information held by the users and providers of credit ratings.

By providing publicly available data, a clearinghouse might also spur competition among the credit rating firms. Accuracy and timeliness of ratings would become an important dimension along which the firms could differentiate themselves—rather than the current practice of differentiation based on a government-approved designation. Equally as important, both sophisticated and novice users of credit ratings data can benefit from a greater transparency of and accountability for ratings results that publicly available data are likely to instill.

With respect to ratings accuracy, firms should be encouraged to provide data from which not only absolute accuracy can be gauged, but timeliness as well. In other words, the clearinghouse data would not only answer whether ratings were right or wrong about a borrower's creditworthiness in some absolute sense, but by including timeliness

criteria, the data would also allow users to evaluate how far ahead in time credit ratings allowed investors to anticipate a given default.

Finally, under a clearinghouse solution, credit rating agencies would not be required to participate unless they chose to rate or publish information about U.S. Treasury or federal agency obligations, or the instruments held in public trust funds or federal pension plans. Rating organizations who opted to participate in the SEC's clearinghouse would be given NRSRO designations. Furthermore, the SEC's discretion to deny NRSRO designations would be limited to instances where it could demonstrate bad faith or fraud, and any rejections of NRSRO status would be subject to outside review at either the civil or administrative law levels.

5 Potential Issues with HR2990

Given the foregoing analysis and suggestions, how well does HR 2990 perform? Clearly, the bill aims squarely at the core of the problem: namely, the removal or mitigation of artificial barriers to entry in the provision of credit rating services. The bill tries to resolve the issues with limited SEC recognition by changing the "recognized" in NRSRO to registered, and in this, it closely aligns with the notion of a clearinghouse mentioned earlier. The bill also tries to foreclose possible avenues for abuse by mandating that credit rating organizations have at least 3 years rating experience before being designated as "registered" organizations.

In comments and testimony on the proposed bill, some have suggested that mandatory registration may be problematic constitutionally, on First Amendment grounds. From an economic perspective, this observation seems strained, if one views credit ratings similarly to audit opinions and other evaluations of financial fitness. However, the mandatory (all-or-nothing) approach taken to registration, combined with the fact that there is no plainly identified avenue of recourse to denied registrants, seems to grant the SEC too much discretion that could, in turn, be used to erect or maintain barriers to entry.

In addition, with respect to the 3-year minimum, it is true that three years are superior to two in terms of sorting good ratings agencies from poor ones; but equally clearly, five years are superior to three. A minimum threshold, like the one in the current bill, seems essentially arbitrary. Such a threshold cannot be determined by economic means, and so must rely on other standards for its determination. In considering this standard, it may be well to recall the observation that the users of credit ratings information are primarily (if not exclusively) sophisticated investors. That sophistication in combination with transparently provided performance information should allow ratings users to determine who the suppliers of credible ratings information are.¹³

¹³ One issue left unaddressed in this study or in the bill is whether credit ratings ought to hold such a prominent position in the determination and evaluation of borrowers' creditworthiness, and in regulatory policy. To be sure, credit ratings distill a lot of information into one symbol, but at what cost do they do so? Just as importantly, does such a simple 100-year old device accurately portray the financial products of the 21st century? I do not have the answers to these difficult questions, but I do know that when value-laden questions such as the foregoing arise, it is often a signal that market participants should be called upon for the answer.

6 Conclusion

Artificial barriers to competition in the credit ratings industry (such as the undefined NRSRO designation) should be removed. They lead to monopoly rents and economic inefficiency, as suggested above.

The foregoing analysis has identified some ways in which the barriers could be removed or mitigated, and has considered the attempts by HR 2990 to do so. A handful of comparatively minor defects in the bill were identified (such as mandatory registration and the arbitrary 3-year waiting period). Importantly, it should be noted that these are defects from the perspective of economic efficiency and may not necessarily be defects from other perspectives. The bill's overarching virtue is that it tries to correct a glaring defect that should never have existed in the first place, and certainly should not have been allowed to persist for 30 years.