THE EXCHANGE AS REGULATOR

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INTRODUCTION

SHOULD the regulation of securities markets and their participants be the function of state (or provincial), national, or multinational agencies? Examples exist of each of the three. The primary regulator in the United States is the Securities and Exchange Commission ("SEC"), an independent agency of the federal government. States share regulatory authority over securities professionals and offerings of securities within their jurisdictions. In Canada, provincial governments have primary responsibility for securities regulation.1 The United States and Canada have created a system under which a new-issue prospectus used in one jurisdiction can, with minor modifications, be used in the other.2 The European Union has adopted several directives relating to corporate disclosure and market structure to which national legislation must conform.3 An international body known as the International Organization of Securities Commissions acts as a forum for national regulators to work for increasing cooperation among themselves.4

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The trend, however, is toward greater centralization, meaning either regulation by higher-level governmental units or more uniformity among existing regulators. The United States added a large layer of national regulation to preexisting state regulation in the 1930s and in recent years has moved to reduce state governments' regulatory role. The SEC has identified "harmonization," or the minimization of differences between regulatory systems, as a central goal for international securities markets. The rationale is that to the extent regulatory systems differ, issuers and sellers of securities will exploit these differences in ways that will reduce the protections available to investors.

This Article is premised on the idea that the benefits of increased capital mobility will be better realized through regulatory decentralization than greater centralization. It thus takes as its starting point the arguments in favor of regulatory competition. Competition among different regulatory systems will force regulators to be responsive to investors' needs, but will exist only if buyers and sellers of securities have some ability to choose the system that will govern their transactions and if regulators may change the rules in response to the signals thus received.

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My objective is not to repeat the arguments in favor of regulatory competition, but rather to ask who should be the competitors. Much of the debate over regulatory competition explicitly or implicitly assumes that the competition will be among national (or possibly state or provincial) regulators. I will argue, by contrast, that the benefits of regulatory competition would be most effectively achieved by devolving more regulatory authority to the bodies that were the first regulators—the securities exchanges themselves. In particular, exchanges should be the primary writers and enforcers of rules relating to disclosure by listed companies, standards of conduct for member broker-dealers, and market structure.

The argument proceeds in three Parts. The first offers a conventional analysis of the reasons why exchanges should have strong incentives to provide rules and enforcement mechanisms that increase investors' returns, thereby increasing investors' demand for listed securities. The second recounts the reasons why this analysis was rejected in the United States in the 1930s and exchanges were subjected to government oversight. Those reasons center on a perception that the exchanges made little effort to stop their members and listed companies from defrauding investors. Academic commentary has cast doubt on the accuracy of that perception, even in the supposed heyday of improper market practices in the late 1920s. I review the evidence and conclude that exchanges provided adequate protections for investors. The final Part of the Article analyzes a separate argument in favor of governmental regulation—that exchanges have a systematic tendency to suppress competition among their members. Exchanges often have restrictive rules, such as fixed commissions or limits on off-exchange trading by exchange members, that appear on their face to reduce competition and raise investors' costs.

With regard to the last argument, I note that some restrictive rules may be consistent with shareholder welfare. In order to understand the dynamics of market regulation, we must consider the difficult problem faced by an exchange that wishes to

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See Choi & Guzman, supra note 7; Edwards, supra note 7; Fischel, supra note 7; Romano, supra note 7.
attract investors with low transaction costs, efficient prices, and transparency while simultaneously earning a competitive return on the investment its members make in exchange facilities. Most of the assets of an exchange are intangible—its rules and procedures, and the valuable information it generates (prices, bids and offers, and trading volumes)—and non-members cannot be easily prevented from capturing their value. That complicates the members' pursuit of a return sufficient to justify establishment of an exchange in the first place. The argument is analogous to the standard arguments regarding intellectual property rights.9 One common solution to the problem is to have restrictive rules that substitute for enforceable property rights in the exchange's assets.

To the extent exchanges do not face substantial competition, exchange members will be tempted to carry restrictive rules beyond the point necessary to earn a competitive return, to the point where they earn rents for exchange members. This suggests that there could be an important opportunity for a governmental regulator to serve as the protector of exchanges' property rights, leading to a more pro-competitive and socially beneficial set of exchange rules.

A comparison of restrictive rules in lightly regulated markets with those in more heavily regulated markets, however, strongly suggests that governmental regulation does not provide a superior balance of property rights and competition compared to exchange regulation. This matters, because governmental regulators, unlike exchanges, can create a uniform set of rules sheltered from competitive pressures. Given the difficulty of determining optimal rules, a system of competing markets should do a better job of furthering investor welfare than a system in which a regulator creates and enforces uniform rules.

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I. THE THEORY AND PRACTICE OF EXCHANGE REGULATION

A. Theory

Stock markets, meaning organized markets in which professional, specialized intermediaries trade securities pursuant to a common set of rules, have existed since the seventeenth century. Governments paid attention to, and tried to restrict the activities of, these markets from the outset, but for most exchanges, comprehensive governmental regulation of rules and procedures is a twentieth-century phenomenon. For most of their history, then, exchanges have been the primary regulators of securities markets. They mediated between buyers and sellers and between issuers and investors. They determined how bargains would be struck and performed, what standards of financial responsibility brokers must meet, and what information listed companies must disclose to investors. Those rules supplemented generally applicable rules of contract, agency (including the fiduciary duties owed by the broker to the customer), negotiable instruments, and so on.

Exchanges should have strong incentives to adopt rules that benefit investors. I will not belabor the arguments because they are the same ones that apply to the incentives of any producer to supply goods or services that consumers desire, and in any event, they have been made elsewhere. Exchanges are typically owned by their members, who are stockbrokers or other professional intermediaries. Because their incomes rise as the volume of transactions rises, intermediaries create stock markets, which attract investors by offering liquidity. As a provider of liquidity, an exchange competes with other exchanges and over-the-counter markets, both to attract companies to list and to induce investors to purchase listed securities. The securities

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11 See, e.g., An Act to Restrain the Number and Ill Practice of Brokers and Stock Jobbers, 1697, 8 & 9 Will. 3, ch. 32 (Eng.).

market as a whole also competes for investor funds with real estate, precious metals, collectibles, and so on.

The desirability of investment in listed companies depends in part on the institutional structure of the trading market. A market may offer more or less liquidity, price impact, speed of execution, and reliability of performance, among other things, and at a greater or lesser cost. Investors differ in their preferences; some might prefer lower trading costs to more rapid execution, and others might prefer a less liquid but anonymous market to a more liquid but transparent market. We might therefore observe different markets adopting different rules and procedures to cater to different clienteles. Nevertheless, an exchange will survive only if a sufficient number of investors find it worthwhile to use the exchange’s facilities to purchase the securities listed on the exchange. Note also that the effectiveness of this competition should increase as barriers to the movement of capital decline. The larger the set of (geographically) separate markets that can compete for business, the stronger the incentives of each market to adopt optimal rules.

The competition for investor funds also depends on the desirability of listed companies as investment vehicles. An individual company can attract investor interest only by offering a sufficient risk-adjusted return. One important source of risk is the divergence of investor viewpoints about the company’s performance. The company can reduce this divergence by making financial and other disclosures.

There may be, however, a collective action barrier to companies choosing an optimal level of disclosure. Disclosures about a particular firm are useful to all investors but the cost of disclosure is borne only by the shareholders of that firm. Moreover, if that logic leads most firms to choose not to disclose, the resulting “lemons discount” for non-disclosing firms will be relatively

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14 See Lawrence Harris, Consolidation, Fragmentation, Segmentation and Regulation, Fin. Markets, Institutions & Instruments, Dec. 1993, at 1, 5-13; Fischel, supra note 7, at 125-27.
small.\textsuperscript{15} By contrast, if most firms disclose, the problem of high-disclosure firms subsidizing low-disclosure firms' shareholders will be much smaller and the lemons discount larger.\textsuperscript{16} It is not clear whether this problem actually has a large effect on companies' decisions about disclosure. If it does, a third party such as an exchange, with the ability and incentive to seek contractual commitments to disclose from a broad cross-section of firms, will choose a more nearly optimal set of disclosure rules than would firms acting without coordination. An exchange can also specify a uniform format for the presentation of information (if that is what investors want) and spread the cost of development among all listed firms.

The necessity of attracting investors who have ample alternatives should lead exchanges to choose rules and listing standards that produce benefits to investors until the value investors attach to further benefits is outweighed by the cost of providing them. Self-interested stock exchange members will produce rules that investors want for the same reasons that self-interested bakers produce the kind of bread that consumers want.

\textbf{B. Practice}

The organization and rules of stock exchanges throughout their history demonstrate members' awareness of the link between their well-being and that of their customers. A set of rules adopted by New York stockbrokers in 1791, the earliest surviving organizational document for the New York stock market, was concerned principally with defining the terms of contracts and the procedures for their performance.\textsuperscript{17} The rules, for example, provided for a sale to be identified as a "cash" transaction (to be settled the next day) or a "time" transaction (to be


\textsuperscript{16} This is fairly closely analogous to the arguments made by Easterbrook and Fischel in favor of mandatory disclosure. See Frank H. Easterbrook & Daniel R. Fischel, Mandatory Disclosure and the Protection of Investors, 70 Va. L. Rev. 669 (1984).

settled at a mutually agreed later date). They set out the procedures for transfer of title and the procedures for cover if either party failed to perform. Similar issues were dealt with in the first constitution and by-laws of the New York Stock Exchange ("NYSE" or "Exchange") of 1817 and in the constitution and rules as they stood in 1933.

Like a trade association, the brokers created a private body of contract law that, because more specialized, could be more precise than the generally applicable law of contracts and, because backed by the sanction of removal from a profitable business, could command even greater adherence than judicially enforced rules. In part this reflected the exchange members’ preference for quick and predictable resolution of disputes. Beginning in 1792, however, a private legal system became a necessity because the New York legislature made most “time” bargains unenforceable. Because the brokers were primarily agents rather than principals, they were effectively “selling” to their customers the private legal system they had created. The meticulous attention they paid to the details of contract creation, performance, and remedy suggests that they viewed the quality of that product to be an important competitive advantage.

Exchange members also recognized the value of market integrity in attracting business. The 1817 constitution contains a provision prohibiting fictitious transactions on pain of expulsion from the Exchange. By 1933, the rules of the Exchange more

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18 Id., reprinted in Werner & Smith, supra note 17, app. c at 191.
19 Id.
20 NYSE Const. of 1817, reprinted in Werner & Smith, supra note 17, app. d at 192-95.
24 NYSE Const. of 1817, art. XVIII, reprinted in Werner & Smith, supra note 17, app. d at 194.
broadly prohibited fictitious trades and other fraudulent acts and gave the governing board the power to alter the time of delivery of securities in the event that it deemed a corner to have taken place.

A third important class of rules sought to assure the creditworthiness of Exchange members and to deter defaults. The Exchange screened potential members for creditworthiness. A member who failed to comply with his contracts faced suspension. While other Exchange members obviously benefited from such provisions, so did their customers. This is clear from instances in which the governing body suspended a member on complaint by a customer that the member had breached a contract with the customer. Later, the Exchange instituted a rule requiring the segregation of customer and proprietary securities as a means of protecting customers against the insolvency of their brokers.

Stock exchange rules were also concerned with the quality of securities sold on the exchange. Trading in forged, invalid, or otherwise worthless securities harms broker-agents, but to an even greater extent harms their principals. Thus, the attention stock exchanges have paid to such matters reflects brokers' recognition that their prosperity depends on customers' perceptions that they are receiving value for their money.

Stock exchange rules have long been concerned with the validity of shares traded on the exchange. The earliest standing committee of the NYSE was a “Committee on Securities” which was charged with resolving disputes concerning forgeries and other irregularities in stock and bond certificates. By 1869, the Exchange had instituted a listing requirement aimed principally at assuring that market participants had accurate information about

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25 See NYSE Const. of 1931, art. XVII, § 3, reprinted in Meyer, supra note 21, at 807.
26 See id. art. XVII, § 2, reprinted in Meyer, supra note 21, at 807.
27 See id. art. III, § 7, reprinted in Meyer, supra note 21, at 781.
28 See Banner, supra note 23, at 318-19.
30 See Banner, supra note 23, at 318-19.
31 NYSE Rules, ch. XII, §§ 2, 5, reprinted in Meyer, supra note 21, at 851, 852.
32 See Eames, supra note 29, at 44.
each company's capitalization (that is, the number of shares, bonds, and other liabilities outstanding). The Committee on Stock List, however, also made inquiries into the validity of a company's incorporation and title to its properties as well as the reputation of its products or services. Eventually, the agreement that companies entered into with the Exchange in order to be listed required those companies to make comprehensive financial and other disclosures, which will be discussed in greater detail later.

In summary, many stock exchange rules in the era before governmental regulation were premised on the idea that to attract investors, the exchange had to provide elementary protections against defaults, forgeries, fraud, manipulation, and other avoidable risks. Thus stock exchange rules dealt with most of the broad categories of issues with which modern securities regulations are concerned.

C. Limitations of the Analysis

The efficiency of regulation by self-interested exchange members is a first approximation that holds under idealized conditions of perfect competition and the absence of externalities. The theoretical argument that exchanges will choose rules that are nearly optimal to investors must therefore be qualified. While identifying the qualifications, however, we should also keep in mind that a governmental regulator that sets out to determine optimal exchange rules starts from a substantial disadvantage in information, experience, and incentives compared to an exchange. Thus the familiar caveat holds—we must not only identify reasons to think that exchanges will produce sub-optimal rules, but also reasons why a regulator will produce more nearly optimal ones.

Stock exchange rules may sometimes have external effects. Some of these arise at the level of microstructure. For example, many markets have a rule of time priority—if there is more than one bid or offer at a particular price, the offer first in time is executed first. Traders farther back in the queue may opportunis-

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33 See id. at 51-52.
34 See Banner, supra note 23, at 324-26.
35 See infra text accompanying notes 42-63.
36 See, e.g., NYSE Rule 72(a), N.Y.S.E. Guide (CCH) ¶ 2072, at 2651 (June 1993).
tically threaten to move to another market that does not enforce
time priority. The existence of this second market, therefore, un-
dercuts the ability of the first market to enforce its rules. Exchange rules also have positive externalities. For example, an exchange that requires its specialist to maintain a continuous mar-
et market incurs costs in doing so. Traders who want to minimize their share of those costs can trade in a cheaper, less liquid market when enough contraside interest exists there, and trade on the exchange only when insufficient interest exists in the cheaper market.

It has also been argued that exchanges have insufficient incen-
tive to prevent manipulation by exchange members. The arg-
ument is that trading volumes (and, therefore, the wealth of exchange members) depend on the desire of marginal traders to trade, whereas manipulation transfers wealth principally from inframarginal traders to manipulators. Competition from other exchanges may not solve the problem. Because trading in a par-
ticular stock has some characteristics of natural monopoly (liq-
duity tends to create more liquidity), exchanges may not compete as vigorously as theory suggests. As a consequence, an exchange may be subject to some of the same disadvantages as a govern-
mental regulator, in that its decisions may be influenced by rent-
seeking subsets of exchange members with interests that diverge from those of the membership as a whole. The implications of this analysis go beyond the control of manipulation and suggest broadly that stock exchanges may lack the incentive to adopt optimal rules.

While these arguments point to specific departures from pure competition, they do not necessarily provide a strong basis for substituting government agencies for exchanges as the principal regulators. The magnitude and impact of these effects are not clear, nor is the likelihood that they can be easily solved through administrative action. The remainder of this Article will accord-
ingly deal with generalized versions of these externality and mar-
ket failure arguments. It first examines specific factual claims regarding exchanges’ failures to prevent fraud and manipula-

37 See Harris, supra note 14, at 20-23.
38 See id. at 24-25.
tion. It then asks whether exchanges are sufficiently insulated from competition to be in a position to act as a members’ cartel and whether governmental regulation has reduced that risk.

II. THE REJECTION OF EXCHANGE REGULATION: A CRITICAL HISTORY

In the wake of the stock market crash of 1929 and the subsequent depression, the United States decisively rejected the notion that exchanges would promote investor welfare if left to their own devices. Congressional and public opinion drew a causal link from the behavior of exchange members to the Crash and from the Crash to the Depression. I will not deal with the latter, other than to note that few if any contemporary economists believe that the Crash precipitated the Great Depression.

The idea that there was a substantial divergence between investor welfare and the behavior of exchanges and their members has had much more staying power. Policymakers and commentators of the 1930s and after concluded that the NYSE had been run as a “private club” (the phrase was a favorite of one-time SEC Chairman William O. Douglas). Behind that phrase lurked the strong but unarticulated idea that the incentives of exchange members, compared to those of other producers, were insufficiently aligned with those of their customers.

While it is often difficult to penetrate the vituperative language of 1930s policymakers and understand the precise nature of their claims, we might for purposes of argument take them to be making externality claims similar to those outlined above, but with a strong dose of casual empiricism behind them. The central factual claims, which have survived largely intact to the present day, were: (1) that disclosure practices of listed companies were deficient, implying that exchanges lacked either the will or the means to encourage adequate disclosure; (2) that exchange members routinely manipulated prices so as to make trading profits at the expense of the investing public; (3) that banks and brokers extended excessive margin credit to purchasers, fueling short-term speculative trading and short-term volatility; and (4) that ex-

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change members sold stock short in deliberate attempts to ignite panic selling, a practice known as "bear raiding." I will review the current state of knowledge about the facts underlying these claims.

A. Disclosure

The most prominent feature of securities regulation in the United States is the mandatory disclosure system. The Securities Act of 1933 ("Securities Act") requires extensive disclosures in connection with public offerings of securities. Similarly, the Securities Exchange Act of 1934 ("Exchange Act") requires ongoing periodic disclosures by publicly traded companies.

The new-issue disclosure requirement does not directly conflict with exchange regulation. Many public offerings (particularly initial public offerings) are made by non-listed companies not subject to the periodic disclosure requirements of an exchange. It is more analytically tidy to consider new-issue disclosure as a species of corporate law (albeit federal corporate law) than as a portion of the regulatory system for securities markets. Indeed, most of the Securities Act was borrowed from the Companies Acts, which were part of the general corporate law of England.

The Exchange Act's periodic disclosure system, however, was a direct response to the perceived shortcomings of the NYSE's disclosure requirements. As initially enacted, the periodic disclosures were mandated only for companies listed on an ex-

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41 See, e.g., Letter from the President of the United States to the Chairman of the Committee on Banking and Currency with an Accompanying Report Relative to Stock Exchange Regulation, 73rd Cong. (1934) (report of the Dickinson Commission to the Secretary of Commerce), reprinted in 5 Legislative History of the Securities Act of 1933 and Securities Exchange Act of 1934, item no. 16 (J.S. Ellenberger & Ellen P. Mahar eds., 1973) [hereinafter Legislative History].
change, so they were explicitly designed to improve the quality of disclosures provided by listed companies.  

How poor were pre-1934 disclosure practices? Let us start with NYSE-listed companies. By 1934, the NYSE had for many years required listed companies to provide stockholders with a balance sheet and income statement in advance of each annual meeting. By 1928, the annual financial statements had to be audited by an independent auditor. Beginning in the early 1920s, the Exchange began to push for companies to agree to quarterly reporting, and such undertakings were already common in listing agreements by the mid-1920s. The newly created SEC paid the NYSE's disclosure requirements a great compliment: The first SEC disclosure forms borrowed heavily from the NYSE's listing standards.

The evidence does not support the common claim that these requirements were ignored. George Benston has conducted extensive studies of pre-1934 disclosure practices. In general, he found nearly universal compliance with the requirement for an annual balance sheet and income statement and a substantial ten-

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dency to provide more information, or information of a higher quality, than required (for example, most listed companies’ annual financial statements were audited by outside accountants before the NYSE’s rules required the practice).

The level of detail in the disclosures was much lower than today, but the essential question is whether the additional disclosures constitute information (or, more precisely, would have constituted information in the context of the economy and markets of the 1920s). Here, too, there is some data. Benston finds evidence that the post-1934 requirement that an income statement disclose gross sales (a number that some, but not all, companies disclosed before that time) did not increase the informativeness of stock prices. In general, there is substantial evidence that the mandatory disclosure system does not produce information. The price effects of SEC filings are negligible.

Further support for the proposition that governmental regulation does not increase the informativeness of prices of exchange-traded stocks comes from studies of the informational efficiency of more lightly regulated markets. Several studies have attempted to measure the comparative efficiency of U.S. and foreign markets or to determine the extent to which the adoption of U.S. disclosure practices enhances the efficiency of prices. The results do not support the argument that U.S. disclosure practices increase informational efficiency.

The fact that public offerings of non-NYSE companies could take place outside this disclosure system provides some support for new-issue disclosure statutes such as the Securities Act. I have argued elsewhere that understood in their original context—a codification of common law rules that forced corporate promoters to disclose any hidden interests they may have had in a company they were floating—the Securities Act’s disclosure requirements were probably consistent with investor welfare. That said,

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50 Benston, Required Disclosure, supra note 49, at 141-49.
51 See Benston, Appraisal, supra note 49, at 52-53.
there is scant support for the idea that new-issue disclosure practices were substantially defective prior to 1933. It appears that investors may have attached more importance to the reputation of the investment bank that managed the issue than to an exhaustive set of disclosures, and therefore, pre-1933 prospectuses were much briefer than their modern incarnations.

This again begs the question whether investors needed or wanted the additional information. It may have been rational for investors to focus first on the reputation of the underwriter. Late nineteenth-century and early twentieth-century companies often had a very close relationship with their investment banks, usually including bankers on their boards of directors. J. Bradford De Long argues that these arrangements facilitated monitoring of management's performance and evaluation of projects that would be financed by new capital.54 He presents evidence that the presence of a J.P. Morgan banker on a board of directors increased the value of the company by approximately 30%.55 In a similar vein, Carlos Ramirez notes that the capital investments of Morgan-affiliated companies were less sensitive to the company's cash flow than those of non-Morgan-affiliated companies.56 In other words, having J.P. Morgan & Co. as underwriter reduced the cost of external financing, a result consistent with the hypothesis of superior evaluation of projects.

There is also strong evidence that investors' ex post outcomes were not worsened by reliance on voluntary disclosures plus the banker's reputation. Studies comparing investors' returns before and after enactment of the Securities Act have concluded that mean returns were comparable.57 On the other hand, the disper-

55 Id. at 205.
sion of returns (risk) was greater prior to the Securities Act. One possible reason is that the Securities Act made it difficult for newer and riskier companies to tap the public markets. Another possible explanation is that companies traded only over the counter had difficulty solving the collective action problems associated with disclosure and, consequently, they tended to disclose less than the socially optimal amount. Carol Simon has demonstrated that investors' forecast errors before 1933 were significantly lower for NYSE-listed companies than for unlisted companies. In fact, based on the pre- and post-1933 risk-adjusted returns, one would conclude from Simon's study that the NYSE's listing requirements were as effective as the SEC's disclosure requirements.

Why, then, did a generation of policymakers and other reformers conclude that corporate disclosure practices were inadequate? They may have noticed how difficult it was for the NYSE to gain compliance with its disclosure requirements and concluded that the NYSE could not force adequate disclosure. When the NYSE first instituted those requirements in the late nineteenth century, many listed companies were effectively family businesses with a minority public stake. The original proprietors were reluctant to abandon their instinct for secrecy, which they viewed as an important competitive weapon. Nevertheless, the NYSE prevailed. Beginning with the abolition of unlisted trading in 1910, the Exchange's Committee on Stock List carried out a vigorous and successful campaign to improve the quality and quantity of disclosure. One might suspect that the Exchange's efforts to solve the collective action problems posed by corporate disclosure were undercut by companies deliberately choosing not to list, but the data do not support this proposition. After the NYSE abolished unlisted trading, most of the Exchange's unlisted companies (in other words, those companies with the strongest desire not to disclose) applied for a full listing even though it meant

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* See Stigler, supra note 57, at 122.
* Simon, supra note 47, at 308-10.
* Hawkins suggests that this was a significant factor in the slow development of modern disclosure practices. See Hawkins, supra note 46, at 166-67.
complying with the disclosure requirements.\textsuperscript{61} It is worth noting that one of the leading historical accounts of the development of financial disclosure identifies the turning point for disclosure practices as 1900, rather than 1933.\textsuperscript{62}

We should also recognize that critics of corporate disclosure policies were not concerned solely with investor welfare. Many, like Louis Brandeis and William O. Douglas, firmly believed that corporations were too large and powerful and supported greater or lesser degrees of general governmental oversight of business.\textsuperscript{63} They wanted to force corporations to disclose sufficient information to help the government identify and eliminate excessive profits whether or not investors regarded the information as important. Some of their attacks on the NYSE's disclosure requirements, therefore, were not solely concerned with investor welfare.

\textit{B. Manipulation}

The charge of market manipulation occupied more of Congress's attention from 1932 to 1934 than did the charge of insufficient disclosure. One of the central purposes of the Exchange Act was to eliminate manipulation, and indeed its disclosure requirements were largely seen as a means to this end.

There has been little careful study of manipulation in the securities markets. From the very beginnings of organized securities markets, there have been deceitful practices that are sometimes aggregated under the heading "manipulation." The simplest is spreading a false rumor in order to influence prices. A notorious example is that of a group of traders who successfully spread a rumor in February 1814 that Napoleon was dead and that a treaty of peace between England and France would soon be concluded, which had the effect of raising the price of English government securities.\textsuperscript{64} This form of misconduct in securities markets pres-

\textsuperscript{61} See Simon, supra note 47, at 298.
\textsuperscript{62} See Hawkins, supra note 46, at 167.
\textsuperscript{63} While it has come down to us as a pro-disclosure manifesto, Brandeis's famed book \textit{Other People's Money} is more concerned with concentration of economic power than it is with disclosure. Louis D. Brandeis, \textit{Other People's Money} (Richard M. Abrams ed., Harper & Row 1967) (1914). The same can be said of Douglas's concerns. See Douglas, Democracy, supra note 40.
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...ents no new problems; it is fraud, and as such it is deterred by the full panoply of legal rules used to stop fraud in other markets. Indeed, the manipulators in the above-described scheme were criminally prosecuted and convicted.

Another practice more accurately depicted as "manipulation" involves creating market power through a corner or squeeze. For example, assume that most of the stock of a particular company is held by a small group, with a smaller amount publicly traded (a common occurrence in the nineteenth century). Assume further that a trader (the "short") obtains unfavorable, non-public information about the company and attempts to profit from it by selling short. Another trader (the "long") discovers or infers what is going on and begins buying all the stock the short is selling and any other stock available in the market. Simultaneously, the long approaches the large stockholders and gets them to agree, perhaps for a side payment, that they will not sell their stock for some period of time. The long may successfully create a situation in which the short cannot acquire enough stock to cover his short position except from the long. At this point, the long can exercise monopoly power over the short. Once again, the key to success is deceit; the short must overestimate the availability of the stock.

There is a large popular literature that suggests that manipulation was ubiquitous in the American financial markets before the turn of the century, but little detailed evidence of such manipulation exists. In most instances manipulation is inferred from large price swings. Commentators have also argued that the NYSE failed to enforce its rules against manipulation, noting the paucity of disciplinary actions during the nineteenth century. The strength of the point depends on whether there was much manipulation for the NYSE to discipline. It is worth keeping in mind

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6 An amusing variation on the theme is said to have arisen from the contest for control of the Erie railroad. Holbrook reports that after Cornelius Vanderbilt had apparently obtained control of the corporation, Jay Gould bribed a judge to rule that the Erie bonds that Gould held were convertible into common stock, thus dramatically increasing the number of outstanding shares and causing Vanderbilt to suffer considerable losses. See Stewart H. Holbrook, The Age of the Moguls 29-33 (1954).

6 See, e.g., id.; Edwin Lefèvre, Wall Street Stories (1901); Dana L. Thomas, The Plungers and the Peacocks (1967).

6 See Banner, supra note 23, at 341-42; Werner & Smith, supra note 17, at 32.
the understandable tendency of disappointed purchasers or sellers to claim manipulation and recognizing that there is little hard evidence from which to assess the merit of those claims. Moreover, exchanges did take action when they determined that a corner had been established, sometimes relieving cornered short sellers of their obligation to make delivery.

In any event, one would expect manipulation to have been much less frequent in the 1920s than in the nineteenth century. Long-distance communication was much improved, and therefore so was the ability of traders to verify rumors. As companies had on average a larger public float and trading volumes were greater, the creation of a corner was more difficult.

Yet the legislators who drafted and supported the Exchange Act were convinced that manipulation was ubiquitous, rather than disappearing, in the late 1920s. The principal evidence upon which they relied was the existence of the “pools,” temporary joint ventures through which traders bought and sold a particular stock. The Senate Banking and Currency Committee, which carried out extensive hearings from 1932 through 1934 into stock market practices, concluded that the purpose of the pools was to manipulate prices and that they often succeeded in doing so.

Most importantly for present purposes, Congress believed that pools routinely and blatantly flouted the NYSE’s rules against fictitious trades as well as the rule forbidding specialists from divulging the contents of their “book” of limit orders. Indeed, Congress concluded that the NYSE should have banned pools altogether, and its failure to do so demonstrated that it acted in the interests of its members even when they diverged from the interests of investors.

Some commentators have expressed skepticism regarding these claims. Both Benston and Harold Bierman note that the record of the Senate hearings contains little substantiation for the claims

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68 See Banner, supra note 23, at 324-25; Werner & Smith, supra note 17, at 32.
70 See id. at 37-41, 47-50.
of manipulation. More recently, I examined the pools in some detail and found no evidence that they represent successful manipulations. The hearings produced no evidence that the pools engaged in wash sales or other fictitious trades. The reasons for the Senate's conclusions on this score are straightforward: Many Senators used the term "wash sale" in the sense tax lawyers use it—a purchase followed promptly by a sale, or vice versa—rather than to refer to a fictitious trade. Nor does the price behavior of the pool stocks support the charge of manipulation. Using an event study of stocks that the Senate identified as having been manipulated, I failed to find the rise-and-fall pattern in abnormal returns that we would expect were manipulation occurring.

C. Margins

Another significant feature of the Exchange Act was its grant of authority to the Federal Reserve to set minimum margins for stock purchases. A stock is bought "on margin" if the purchaser borrows some of the purchase price (typically from his broker). Prior to the Exchange Act, exchanges or brokers determined the minimum margin, or cash downpayment. The Exchange Act's transfer of this function to the Federal Reserve was premised on the notion that exchanges had set excessively low margins, resulting in excessive speculation and "sudden and unreasonable fluctuations of security prices.”

Note that if a high volume of margin lending leads to volatility and brokers understand this relationship, they would charge very high interest rates once loan volumes rose to dangerous levels because greater volatility would imply greater risk of non-repayment. That would make the problem self-deterring. We will therefore assume that the framers of the Exchange Act believed that brokers allowed short-term self-interest to blind them

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73 Id. at 24-31.
to the longer-term risk they were running. The claim, in any event, is that the Federal Reserve, unlike the private sector, will choose margin levels so as to minimize volatility. Fortunately, this is a testable proposition. David Hsieh and Merton Miller, using several different statistical procedures, found no evidence of a causal link between the Federal Reserve’s margin levels and price volatility. They did, however, confirm earlier studies that show some causality in the opposite direction—the Federal Reserve tended during some periods to raise margin levels following periods of increased volatility.

D. Short Selling

Many of the early sessions of the stock exchange hearings were devoted to a hunt for “bear raiders” whom the Senate believed to be the forces behind the stock market’s sharp declines in 1932. The hunt was unsuccessful, became the object of ridicule in the press, and was quickly abandoned. The remainder of the Senate’s attack on short selling consisted principally of the presentation of competing theoretical views about whether short selling causes price declines. No actual “bear raids” were uncovered.

E. Summary

When examined closely, none of the main charges made by legislators and commentators of the early 1930s against the NYSE’s rules and enforcement procedures bear much weight. This is not to say that today’s regulatory provisions, made with the benefit of an additional sixty years’ experience, might not be better in various ways than the NYSE’s pre-1933 rules. The relevant comparison would be to the rules that an equivalently large and liquid, but more lightly regulated, exchange would adopt today. That comparison is one about which we can only

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77 Id.
78 See, e.g., Stock Exchange Practices: Hearings Before the Senate Comm. on Banking and Currency, 72d Cong. 289 (1932) (testimony of Matthew C. Brush); id. at 321 (testimony of Percy A. Rockefeller).
79 See, e.g., The Great Senate Bear Hunt, Literary Dig., May 7, 1932, at 8-9.
speculate, but there is considerable evidence that more lightly regulated exchanges set rules with a view to satisfying investors' needs.

III. IS A MIX OF GOVERNMENTAL AND SELF-REGULATION BEST?

One might advocate governmental regulation on different grounds than those employed by Congress in 1934. The alternative argument would concede that exchanges have appropriate incentives to adopt market structures that maximize investors' returns. Thus an exchange's decision to have a single specialist rather than competing market makers for each stock or to run a continuous auction rather than a periodic call of securities is presumptively efficient. Yet while exchanges may try to offer a superior product, they may seek whenever possible to charge a monopoly price for that product.

The argument, then, is that an exchange may curtail competition among its members by acting as the enforcer of a brokers' cartel. This argument finds support in the many restrictions that exchanges have from time to time placed on their members, such as fixing commission rates, limiting off-exchange trading, requiring that member dealers trade only through member brokers, and so on. These restrictive rules prevent exchange members from competing as vigorously as they might otherwise do, raise the cost of trading, and impose the familiar social costs of monopoly.

Some commentators therefore argue that governments need not regulate market structure but must nevertheless regulate to insure adequate competition among markets and market participants. Through inadvertence or design, then, the United States may have a nearly optimal regulatory structure. In theory, the SEC leaves the choice of market structure to the exchanges and the National Association of Securities Dealers, acting as "self-regulatory organizations." (Whether this is also true in fact is a more complicated question.) At the same time, the SEC has sought to increase competition among markets and their mem-

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80 See infra text accompanying notes 100-123.
bers by banning fixed commissions,\textsuperscript{82} curtailing restrictions on off-exchange trading,\textsuperscript{83} and requiring markets to share information about quotations and orders so that customer orders can be routed to the market offering the best price.\textsuperscript{84}

This account of the regulatory system hinges on three critical assumptions: (1) that major exchanges like the NYSE face insufficient competition from other markets to deter them from acting like cartels; (2) that restrictive rules are inefficient; and (3) that governmental regulators can identify and eliminate inefficient rules while keeping those that create wealth. The remainder of this Part will explore these assumptions.

I will not draw definitive conclusions regarding the first two, but will note that there are plausible arguments against each. A stronger claim can be made with respect to the third assumption. The observed behavior of governmental regulators is inconsistent with the pro-competition explanation for governmental regulation. There is no sharp contrast between exchanges and governmental regulators where restrictive rules are concerned; each has vacillated from time to time between support for and opposition to restrictive rules. It is difficult for a governmental regulator to maintain distance between itself and the industry it regulates, and we should therefore not expect a governmental regulator to be substantially more resistant to pressure from exchange members than is the exchange itself.\textsuperscript{85} Moreover, the choice of optimal rules is not a trivial problem. As I hope the discussion below will show, some rules that appear anticompetitive may be designed to protect exchange members' property rights in exchange assets.


\textsuperscript{83} Rule 19c-3, 17 C.F.R. § 240.19c-3 (1997).

\textsuperscript{84} Rules 11Ac1-1 to -2, 17 C.F.R. § 240.11Ac1-1 to -2 (1997).

On balance, I argue that the case for regulation by exchanges is stronger than the case for governmental regulation even when we take into account the possibility that exchanges will try to suppress competition. Enough doubt can be cast on each prong of the argument for governmental regulation—particularly the ability of a regulator to implement a more pro-competitive set of rules—to make the cumulative force of these arguments quite weak.

A. Do Exchanges Compete?

An exchange's attempts to charge a monopoly price for its members' services will harm only the members if the exchange faces sufficient competition from other markets. Other exchanges will capture trading volume by offering lower transaction costs and investors will be no worse off by virtue of a foolish attempt to charge a monopoly price in a competitive market. If stock markets face sufficient competition, then, restrictive rules will survive only to the extent they are efficient.

The question whether and how much exchanges compete with one another is complex. It is often argued that exchanges are a natural monopoly because liquidity tends to breed liquidity. This is certainly true with respect to the market for any one security, but it does not explain why different securities could not gravitate to different markets. Perhaps economies of scale in trading stocks are so great as to make it unlikely that there will be lots of competing markets. This is to some extent borne out by the relatively small number of exchanges in most countries, typically half a dozen or fewer.

While it is difficult to assess how much competition exchanges face in absolute terms, we can make two comparative points. First, the presence of governmental regulation itself influences the amount of competition, probably negatively. An apparently universal feature of governmental regulation is licensing of brokers and exchanges, which increases fixed costs and thereby encourages greater concentration. There were thirty-four stock exchanges in the United States at the time of the Exchange Act

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86 See Pirrong, supra note 39, at 154.
87 See Senate Report of 1934, supra note 69, at 5.
compared to seven registered exchanges today. Although one might think that the NYSE dominated the scene prior to 1934, this is not accurate. The NYSE did not serve all securities and all investors, and it faced competition even within its own market niche.

Other regulatory programs, such as exchange controls, also limit competition between stock markets by blocking capital flows. In broad terms, prior to World War I there was a period of relatively free movement of capital and international competition for listings and trading volume. This was followed by a collapse of international capital flows and competition (and a marked growth in governmental regulation of securities markets worldwide) after the war. This stagnation in international competition among exchanges continued until the general abandonment of exchange controls beginning roughly in 1980, at which point competition again grew at a rapid pace.

This gets us to the second comparative point—competition among markets is increasing. The NYSE faces vigorous competition from the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), which began operations in the 1970s. To a growing extent, the New York and London stock exchanges compete with one another for listings and trading volume in multinational corporations. This competition helps to explain the bitter fight the NYSE waged with the SEC over whether foreign companies would have to comply with U.S. accounting standards in order to list on a U.S. exchange. The need for governmental oversight of securities markets should be decreasing—not increasing—as markets become more international.

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91 See Michie, supra note 10, at 667-68.
B. Are Restrictive Rules Inefficient?

As described above, it is commonplace for stock exchanges to have rules limiting the freedom of their members to deal with one another and/or with the public on any terms they wish. Although the specifics of such rules vary from one place and time to another, restrictive exchange rules are ubiquitous geographically and temporally. Is this so because there is so little competition among markets or because these rules serve some socially valuable end?

1. Restrictive Rules as Property Rights

The desire to enforce a cartel is not the only reason exchange members might adopt restrictive rules. Such rules may also protect exchange members’ property rights in the assets of the exchange. An exchange is a firm that sells a specific product: liquidity. The existence of an exchange on which securities may be converted into cash on short notice increases investors’ demand for securities. The brokers and dealers who constitute the owner-members of an exchange and invest in its facilities do so to increase the profits they make from acting as intermediaries and providing liquidity. They will make those investments only if they believe that they will earn an adequate return.

That those who invest in a stock exchange must anticipate a return on that investment is critical to understanding the organization and rules of exchanges. It is costly to create a market. Optimal investment in a market will be forthcoming only if the investor receives a competitive return. Unfortunately, there are some features of markets that complicate their creators’ pursuit of profit.

These problems can be summarized by noting that markets generate public goods. Markets benefit investors or consumers generally, and it is often infeasible for those who create a market to obtain compensation from all who receive those benefits. The problem is general and not limited to securities markets. Consider a group of merchants who wish to set up a market for a product (widgets) in which they deal. Assume that sellers and buyers of widgets are widely dispersed and the costs of transportation and communication are high. The merchants therefore expect to increase the volume of trade to their own profit by
solving the problem of matching buyers and sellers as well as by providing a set of rules regarding how bargains are made and a standardized set of terms of those bargains. Thus, the merchants invest in a physical facility, some publicity, and a set of rules. Once these investments are made and the market is created, other widget merchants who did not bear a share of the cost may be able to free ride on the existence of the market. The merchants who create the market (the "members") may own the physical facilities in which the market operates. Consequently, they may exclude any merchant who is unwilling to share the cost of creating and maintaining those facilities through a membership fee, a rental charge for each stall, or some form of transaction-based fee. A fee, however, cannot completely eliminate free riding. Once the market becomes the natural gathering place for widget buyers, non-member widget merchants may be able to set up near the market and attract the attention of buyers without purchasing a membership, entering the facility, or otherwise paying the relevant fee. If this scenario seems far-fetched, consider the itinerant pedlar, who bought at the source of production and sold away from the organized market (sometimes just outside), thus short-circuiting the market and its costs and earning the enmity of more settled merchants.

The physical facility, moreover, may not be the most important asset comprising the market. Markets generate valuable information in the form of prices, and unless it is possible for the members to limit access to price information, non-members may free ride on the prices, reducing their own search costs. Other transactional data, such as bids and offers, trading volumes, and identities of traders, may convey valuable information to other traders. The rules of the market are also valuable and can be copied without paying compensation.

These free rider problems may result in markets being underprovided unless their creators can somehow obtain compensation for the benefits they provide the community. One standard

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means of overcoming these problems is for the government to provide public goods. Merchants may try to convince a broader polity to bear the cost of creating a market through taxes. In the municipalities of medieval and early modern Europe, for example, the market in effect became the local government, empowered to regulate and tax in order to provide public goods (for example, streets, magistrates, weights and measures, and merchants' courts) that facilitated trade within the cities. Free riding was further reduced by restricting the right to sell within the city to citizens or those who had otherwise paid a share of the cost of the public goods. On a more primitive level, it is not surprising to see the spontaneous creation of markets in the cities of the former Soviet Union in public spaces like subway stations and municipal parks—the sellers did not have to pay to create the facilities and the whole polity bears the cost of maintaining them.

Government provision is not, however, the only solution to public goods problems. As Coase argued, an appropriate set of rules that serve as de facto property rights can allow private entrepreneurs to provide public goods. The privately owned lighthouses in Britain that Coase studied received a royal grant of authority to collect tolls from ships calling at nearby ports. While this fell short of the ability to deny the beams of light to anyone who would not pay, it was a sufficiently good substitute to induce private enterprise to build lighthouses. Particularly relevant to our present concern is Coase's observation that financing the construction and operation of lighthouses through tolls, although not a perfect solution to free riding, made decisions about lighthouses sensitive to the preferences of their users in a way that

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[Full citizens of medieval towns] enjoyed perfect freedom of trade in the towns, whilst the foreign handicraftsmen, and those who were not full-citizens, had to buy from the lords of the town the right of carrying on trade, and had to purchase, by various burdens and imposts, the privilege of using the market-halls and institutions established for buying and selling.

47 See id. at 364.
would be lost were the financing provided through general government revenues.  

Thus, a market, instead of seeking financing from general tax revenues, may seek only to prevent free riding by writing restrictive rules. For example, a market may require members to agree that they will not transact in other markets and limit dissemination of the recent history of price moves. In other words, contracts that restrict the freedom of members to deal on any terms they like may form a substitute for more carefully specified property rights. Schumpeter recognized the issue as one of general applicability:

Long-range investing under rapidly changing conditions, especially under conditions that change or may change at any moment under the impact of new commodities and technologies, is like shooting at a target that is not only indistinct but moving—and moving jerkily at that. Hence it becomes necessary to resort to such protecting devices as patents or temporary secrecy of processes or, in some cases, long-period contracts secured in advance.  

2. Restrictive Rules Revisited

Restrictive exchange rules may appear more benign when viewed as a means of preventing free riding and appropriation by non-members. Let us begin with the most obvious. So far as I am aware, all exchanges that have a trading floor limit access to the floor to members or their nominees. This assures that only those who share in the financial burdens of membership may use the physical facility. It is important to recognize that absent concern about free riding, we should denounce such a restriction on access to a market as monopolistic. Indeed, that was the initial reaction of the federal government to the practice. In the 1890s, the government sued under the newly-enacted Sherman Act to enjoin the Traders’ Live Stock Exchange from limiting access to the trading yard to members.  

98 Id. at 373-74.
100 Anderson v. United States, 171 U.S. 604 (1898).
However, rejected the government’s argument, concluding that “[t]here is no feature of monopoly in the whole transaction.”

A century earlier, a group of London brokers had entered into an agreement with the proprietor of Jonathan’s coffee house (their regular meeting place) giving them the exclusive use of the establishment. A broker who refused to pay the subscription price, however, sued to gain access. Lord Mansfield concluded that Jonathan’s was a public accommodation from which the broker could not be excluded. This provided the impetus for the first Stock Exchange building, which as a private institution could deny admission to non-members. The building was purchased by a group of brokers who charged other brokers a daily admission fee.

The Supreme Court’s conclusion that it is socially beneficial to permit an exchange to exclude non-members from its facilities would likely be shared by any modern commentator, who would recognize that this minimal level of protection of exchange members’ property rights in the market is no different in principle than the corner grocer’s right to possess his store to the exclusion of rival sellers. Other restrictions, by contrast, are more controversial, but also less uniform.

Exchanges have throughout their existence tried to strike a delicate balance between permitting too much versus too little public access to the prices and other information generated by dealings on the exchange. An exchange wants investors to have access to a reliable report of representative prices in order to generate interest in trading and to bond brokers’ representations about the value of particular securities. Immediate and costless access, however, makes it easier for investors to avoid the exchange altogether; granting such access amounts to giving away one of the exchange’s most valuable assets. What results is a decrease in the volume of transactions on the exchange and a subsequent decrease in liquidity—in effect, a reduction in the quality of the exchange’s principal product.

101 Id. at 614.
Mulherin, Netter, and Overdahl provide an insightful discussion of how the NYSE tried to deal with this problem over time. From the very beginning of the NYSE’s formal existence (its first constitution was adopted in 1817), the Exchange delegated to one of its officers the decision when to release prices for publication. Individual members were not permitted to publicize prices. A similar provision appears in the first set of written rules of the London Stock Exchange, adopted in 1812. The NYSE was sufficiently concerned that members would use their knowledge of market conditions to transact away from the Exchange that one of its first by-laws prohibited members from leaving the room during the daily call of stocks.

The complexity of the problem intensified with the invention of the stock ticker. Brokers found it very useful to have an almost instantaneous record of transactions transmitted directly to their offices, but this possibility raised the issue whether the Exchange had the legal authority to control the dissemination of these prices once they were in the hands of a common carrier telegraph company (note the similarity to the problem of limiting access to Jonathan’s coffee house). Mulherin, Netter, and Overdahl describe the lengthy and vigorous battle the financial exchanges waged in the courts against the “bucket shops,” informal intermediaries that took customer orders and later paid or received the customer’s gain or loss without incurring the expense of actually purchasing the security. Depending on one’s point of view, they were gambling establishments or the creators of early cash-settled futures contracts. In either event, their raison d’être was to avoid payment of a broker’s commission, transfer fees, transfer taxes, and other transaction costs, and they could operate only if they had access to the prices on the exchange. The exchanges suffered some early judicial setbacks, which led the NYSE to take into its own hands the transmission of prices.

103 Mulherin, Netter & Overdahl, supra note 93.
104 See id. at 597.
105 See Morgan & Thomas, supra note 102, at 75-76.
106 Third Bye-Law of the NYSE Board, 1820, reprinted in Eames, supra note 29, at 23.
107 Mulherin, Netter & Overdahl, supra note 93, at 604-25.
from its premises. 108 This affirmative step finally helped the NYSE to convince courts that it had a property right in those prices. 109

Over time, most securities markets found that they had more to gain from selling prices in near-real time than from trying to keep them secret. In 1996, for example, the NYSE received just over $82 million, or approximately 15% of its total revenues, from selling market data. 110 At the end of 1996, the NYSE announced that it would for the first time sell real-time price and volume data to television networks; two cable television networks began broadcasting real-time prices on December 12, 1996. 111 Of course, U.S. exchanges now have nothing to fear from bucket shops, which are prohibited. 112 The governmental prohibitions on bucket shops are better understood as a recognition and protection of exchanges' property rights in prices than as an attempt to deter gambling.

That an exchange would want to deny bucket shops continuous access to its prices is obvious. Less obvious is the notion that rules restricting the market activities of the exchange's members may protect the collective property right in information. Consider, for example, restrictions on off-exchange trading. Exchange members have access to the exchange floor and therefore to the prices, bids, and offers. It is in the collective interest of the membership that each transact only on the floor of the exchange, maximizing both liquidity and the members' collective access to information about prospective and completed transactions. Any individual member, however, is indifferent whether his transaction takes place on the exchange. Once in possession of up-to-the-minute price information, a member is in a position to transact away from the exchange and will do so whenever it is

108 See id. at 613-15.
109 See id. at 615-17.
112 Among other things, Rule 15c3-3 under the Exchange Act requires that a broker "shall promptly obtain and shall thereafter maintain the physical possession or control" of all securities purchased on behalf of a customer for which the customer has paid. 17 C.F.R. § 240.15c3-3(b) (1997). Bucket shops are also made illegal by Section 4b of the Commodity Exchange Act. 7 U.S.C. § 6b (1994).
cheaper or more convenient than transacting on the exchange. The collective action problem, then, is straightforward.

So is the solution. The exchange may require its members to expose all orders to the "crowd" on the floor of the exchange, thus assuring that the exchange "sells" the liquidity that is facilitated by the exchange's information. Thus by the late nineteenth century, the NYSE had a rule prohibiting Exchange members from trading listed stocks off the Exchange while the Exchange was open, and the rule survives in a diluted form today despite congressional and regulatory misgivings.113

The London Stock Exchange developed a different response to the same problem. The London Stock Exchange has long been a dealer market; competing "jobbers," or market makers, provide liquidity by trading for their own account. From at least the eighteenth century, the exchange had a rule of "single capacity": A member could act as broker or jobber, but not both.114

The motivation for separating the broker and dealer functions may be similar to the motivation for restrictions on off-exchange trading. It is in the interests of the exchange to permit members to act as jobbers because they increase liquidity. At the same time, once jobbers have access to prices, they may offer to transact directly with the public off the exchange. The single capacity rule forbade this by restricting the role of the jobber. The jobber could not deal directly with the public. Instead, it had to transact only through brokers, which is to say only on the exchange.

After considerable debate and study, the rule was made more stringent in the late nineteenth and early twentieth centuries in response to technological changes (particularly the telephone) that made it easier for jobbers to contact investors directly.115 The explicit justification for the stricter rule was the prevention of free riding, at least as the chairman of the exchange expressed it: "By direct communication with our Dealers, country brokers were enabled to deal on the London market on as good terms as

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113 See infra text accompanying notes 148-154.
114 This history is discussed in detail in an exceptional book by Michie, supra note 89, at 20-22, from which the discussion in the next two paragraphs is drawn.
115 See id. at 21-22.
a London Broker, while evading the heavy expense and responsibility of London membership.  

This brings us to the most notorious restrictive rule: the NYSE’s now-defunct rule fixing minimum commissions. It is hard to find an efficiency justification for the rule, and commentators have routinely condemned it as anticompetitive. Seats on the NYSE earned abnormally low returns following the 1968 recommendation of the Antitrust Division of the Justice Department that the SEC ban fixed commissions, providing some support for the notion that brokers were earning rents.

The definitive history of the operation of the NYSE’s fixed commission rule remains to be written, so we cannot be certain how the NYSE managed to maintain minimum commissions for over a century before the onset of regulation despite the apparent ease with which new exchanges could enter the market and compete for listings. There are also some aspects of the minimum exchange rule that seem anomalous when viewed as a pure price-fixing scheme. For example, commissions were lower when the broker identified the principal than when the principal was unidentified. There is also some evidence that while commissions on large transactions were well above the marginal cost of trading, commissions on retail-size transactions were at or below

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116 Id. at 21 (quoting a document in the archives of the London Stock Exchange).
117 See NYSE Const. of 1931, art. XIX, reprinted in Meyer, supra note 21, at 812-16.
119 See G. William Schwert, Public Regulation of National Securities Exchanges: A Test of the Capture Hypothesis, 8 Bell J. Econ. 128 (1977). Schwert interpreted this result as contrary to the hypothesis of NYSE “capture” of the SEC. Id. at 147. I would draw the opposite conclusion: From 1934 to 1968, the SEC enforced the minimum commission rule, and it took a separate agency of the federal government with no connection to the securities industry to prod the SEC to change its mind. Even then, the SEC did not definitively ban fixed commissions for another seven years, at which point: (1) it was clear that Congress was going to act; and (2) competition and customer pressure had substantially eroded the benefits of fixed commissions. See infra notes 143-145 and accompanying text.
120 Michie reports that approximately 250 stock exchanges were formed in the United States in the nineteenth century. See Michie, supra note 89, at 167.
121 See NYSE Const. of 1931, art. XIX, § 2, reprinted in Meyer, supra note 21, at 812-16.
marginal cost. This suggests that part of the purpose of the commission rules may have been to force informed traders (who would be likely to trade anonymously and in large sizes) to subsidize uninformed traders. It may be that we do not fully understand the operation of the minimum commission rule.

We can, however, safely assume for present purposes that fixed commissions are purely anticompetitive. The argument for governmental regulation here founders on the third assumption—as will be discussed shortly, regulators happily enforced the fixed commission rule until it appeared likely to collapse under its own weight.

3. Property Rights or Cartels?

Acceptance of the proposition that exchanges face free rider problems does not commit us to accepting fixed commissions, limits on off-exchange trading, and the like as the price we have to pay for having securities markets. The creators of a market face free rider problems, but counterbalancing these are first-mover advantages, particularly in securities markets. Once an exchange begins to attract listings and investors, it can offer superior liquidity compared to the unorganized markets with which it competes, which will attract more companies and investors and strengthen its advantage. There is also frequent innovation in securities markets (as there is with other products that are only weakly protected by property rights, such as computer software), and innovators can thrive by staying a step ahead even if others can eventually copy the innovations.

Moreover, the design of rules that seek to substitute for enforceable property rights in prices and other intangible assets is a double-edged sword. This is particularly true when producers are able to enlist the government's aid in obtaining such rules. Merchants have often tried ambitious—not to say excessive—

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122 See John O. Matthews, Struggle and Survival on Wall Street: The Economics of Competition Among Securities Firms 102-05 (1994).
123 See infra notes 143-145 and accompanying text.
schemes for enlisting governments to enforce exclusive rights in a market. Guilds, for example, received a governmental grant of exclusive rights to engage in particular trades in particular locations.\textsuperscript{125} The European merchants who opened up trade with other territories, such as the English and Dutch East India Companies, sought and received exclusive rights to that trade.\textsuperscript{126}

The guilds and the great trading companies were on one level an ingenious set of solutions to free rider problems. Guilds clearly invested in public goods by standardizing products and terms of trade, providing physical facilities for trade, and resolving disputes between buyers and sellers. Trading companies provided public goods at great financial and human cost by exploring distant, unfamiliar, and sometimes dangerous territories and establishing trade routes. The exclusive rights they received prevented free riding. At the same time, the level of governmental assistance these institutions received makes them textbook examples of the use of government to create or sustain monopoly power. In a provocative and insightful book on the mercantilist economy, Robert Ekelund and Robert Tollison describe guilds, trading companies, and other monopolies as the product of a destructive and pervasive process of rent-seeking that destroyed large amounts of consumer surplus throughout Europe, though to different extents in different countries.\textsuperscript{127}

It is therefore not clear which way a desire to increase competition cuts. On the one hand, exchange members undoubtedly would like to charge a price above the marginal cost of trading where possible, and they were apparently able to do so for many years. On the other hand, we must recognize the familiar point that governmental regulation is a favored means of enforcing a cartel.

One further point to consider is that exchange members are not all identically situated, making enforcement of a cartel more

\textsuperscript{125} Adam Smith described and denounced the governmental policies that permitted guilds to suppress competition in their trades. 1 Adam Smith, The Wealth of Nations 131 (Edwin Cannan ed., 1904) (1776).

\textsuperscript{126} See Shepard B. Clough, European Economic History: The Economic Development of Western Civilization 160-63 (2d ed. 1968).

difficult. The term “stockbroker” encompasses several distinct businesses and different exchange members may engage predominantly in one or another. As a first approximation, it is useful to divide exchange members into brokers and dealers. Brokers act as agents for customers and receive revenue in the form of commissions. Dealers buy and sell for their own account and receive revenue in the form of a bid-ask spread and/or from the appreciation in value of the securities they purchase. There is no inherent reason why a single individual or firm cannot act in both capacities, and many do. In many markets, however, there is some degree of specialization so that many exchange members are either predominantly brokers or predominantly dealers.

The distinction is pertinent to the present discussion because rules that restrict competition among brokers and thereby maximize brokers’ profits will often reduce dealers’ profits and vice versa. For example, the London Stock Exchange’s single capacity rule had a corollary rule: No jobber could transact directly with the public; he was required to transact only through a broker. From the jobbers’ perspective, the rule increased transactions costs by requiring that a customer pay a broker’s commission on every transaction. From the brokers’ perspective (viewing it most charitably), the rule was necessary to prevent market fragmentation, or the loss of liquidity that results when too much trading takes place off the exchange. The broker’s commission, moreover, represents each transactor’s share of the cost of maintaining the market, and for any member to help a customer avoid paying it would be free riding. Even permitting a single firm to act both as broker and dealer would create a risk that that firm would handle orders in-house rather than exposing them to the market, thereby decreasing the amount of information available to other exchange members.

There is a similar tension inherent in off-exchange trading restrictions. Forcing dealers to transact only on the exchange floor assures that at least one broker (and therefore one commission) will stand between a purchasing (selling) customer and a selling

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128 See Michie, supra note 89, at 20-22.
129 See id.
(purchasing) dealer. Freed from the restriction, a dealer might "cut out the middleman" and transact directly with the public away from the exchange. This tension is heightened when an exchange fixes commissions.

The fact that different exchange members have different preferences regarding restrictive rules reduces the danger of a stable brokers' cartel. Exchanges must mediate between brokers' and dealers' conflicting preferences. It should be difficult for any one subset of exchange members to use exchange rules as a means of gaining monopoly rents because those rents will come in part at the expense of another subset. A brokers' cartel, then, will be more difficult to sustain in the presence of dealers whose interests are sometimes opposed to those of the brokers just as it would be difficult for an organization that represented both wholesalers and retailers to be the enforcer of a cartel of either the wholesalers or the retailers.

C. Governmental Regulators and Restrictive Rules

Even if exchanges do not compete with one another and have the ability and desire to curtail competition among their members, governmental regulation will increase investors' welfare only if regulators can distinguish between exchange rules that are appropriate property rights protections and those that are simply anticompetitive, and can suppress the latter. The behavior of legislatures and regulatory agencies provides no comfort that this is so. There is no systematic difference between governments' and exchanges' tendency to adopt or enforce restrictive rules, nor is there reason to think that governments do a better job of distinguishing between efficient and inefficient restrictive rules. In this situation, moreover, a tie must go to the exchange; governments, unlike exchanges, can compel adherence to their rules by brokers who are not members of a particular exchange, and therefore, the effect of bad governmental rules will be systematically worse than the effect of bad exchange rules.

Governmental regulation typically introduces a new set of restrictive rules or freezes existing ones into place. Consistent with the restrictive and monopolistic character of medieval trade regulation, in the thirteenth century London's Court of Aldermen obtained from Edward I the right to license, limit the number
of, and receive fees from London brokers, including stockbrokers. When Parliament became sufficiently interested in securities markets to regulate them, it limited the number of brokers to 100 while affirming the Lord Mayor's role as the licensing authority. A recurrent theme of British regulatory attention to the stock market during the eighteenth century was debate over the number of licenses to be granted, the distribution of those licenses among would-be brokers, and the amount of fees to be charged. While most of the debate was couched in familiar terms of avoiding excessive speculation and protecting investors, the principal concern of the regulations was the division of rents among rival claimants.

The British regulatory system did not, however, ultimately evolve into a stringent government-protected monopoly. Instead, the regulatory role of the exchange itself grew and that of the local and national government diminished. On the Continent, by contrast, national governments frequently intruded substantially into exchange governance. Under Napoleon, the French exchanges became quasi-governmental institutions and the member brokers became, in effect, civil servants who had a monopoly on securities intermediation. This state of affairs continued vir-

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130 See Morgan & Thomas, supra note 102, at 64; 1 Louis Loss & Joel Seligman, Securities Regulation 3 (3d ed. 1989).
131 An Act to Restrain the Number and Ill Practice of Brokers and Stock Jobbers, 1697, 8 & 9 Will. 3, ch. 32 (Eng.).
132 See Morgan & Thomas, supra note 102, at 64-66.
133 A vivid example of this trend is the Bubble Act, 6 Geo. 1, ch. 18 (1719) (Eng.). Although the statute's preamble declared that its purpose was to prevent fraudulent practices by corporate promoters who sold securities to "unwary persons," it is clear that the real purpose was to protect the competitive position of the South Sea Company, of which many members of Parliament were shareholders. See Ron Harris, The Bubble Act: Its Passage and Its Effects on Business Organization, 54 J. Econ. Hist. 610 (1994).
134 For an illuminating discussion of the rise of laissez-faire in nineteenth-century England, see Ekelund & Tollison, supra note 127.
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actually unchanged until legislative reforms of the late 1980s preparatory to the European Union’s financial liberalization. In Germany, the government of the Land in which an exchange was located appointed the specialists; in Italy, the Ministry of the Treasury fixed the number of brokers on the exchanges. Most of the Continental exchanges had fixed commissions which were set or supervised by government agencies. The net effect of these intrusive regulatory systems was to fix the number, commissions, and trading practices of brokers to a greater extent than on the more lightly regulated British and pre-1934 American stock exchanges.

It would not be fair to lump the Exchange Act and the SEC with the substantially more interventionist regulatory practices of continental Europe prior to the mid- to late 1980s. Nor, as detailed above, is it accurate to equate all restrictive rules with cartelization. By regulating the market, the government could in theory provide a superior property rights regime than could the exchanges. While economic justifications for regulation tend to focus on the correction of negative externalities, regulation is also a potential solution for positive externalities. Licensing requirements and regulated rates or commissions are forms of long-term contracts that encourage investment by preventing free riding. Unlike private firms that invest in creating a market, however, the regulator should not in theory be tempted to tie customers to the investing firm more than is necessary to create appropriate incentives for investment. Thus we must consider the possibility that a regulator could eliminate anticompetitive rules while establishing or keeping rules that protect exchanges’ property rights.

An examination of the Exchange Act and the SEC’s oversight of the exchanges shows no such trend. At a formal level, of course, the statute introduced new limitations on competition by

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136 See id. at 381-84; see also Paul Stonham, Major Stock Markets of Europe 60-73 (1982).
137 See Stonham, supra note 136, at 104.
138 See id. at 143.
139 See id. at 18-19 (Belgium), 65-66 (France), 104-09 (Germany), 144-47 (Italy).
requiring the registration of brokers and exchanges. As the prior discussion of bucket shops noted, this protected exchanges' property rights in prices. The regulatory restrictions, however, went considerably farther than necessary for that purpose. Not only did they mandate uniformity among exchanges on matters such as margins, short selling, disclosure requirements, membership standards, and governance structures, but they also failed to remove the most restrictive exchange rules. To the extent the regulatory system's goal was to keep efficient restrictive rules while driving out inefficient ones, we would expect rules fixing commissions to be the first to go. The Exchange Act did nothing to prohibit fixed commissions, however, and for forty years, neither did the SEC.

In 1975, after more than a decade of congressional and administrative hearings on the issue, the SEC banned stock exchange rules that fixed commission rates. The decision, however, did little more than recognize a fait accompli. Pressure from institutional investors had made a mockery of fixed commissions well before 1975, and competition from the new NASDAQ market and other over-the-counter markets had made exchange members less enthusiastic about the practice. It is inconceivable that fixed commissions would have survived much longer with or without the SEC's approval. This becomes particularly apparent when we look at the demise of fixed commissions on the London Stock Exchange, which took place a decade later without the influence of a securities regulator. The ten-year difference likely reflects the fact that the NYSE began to experience substantial competition from NASDAQ and the Third Market

142 See supra text accompanying notes 107-112.
143 Baxter suggests that Congress's failure to address fixed commissions in the 1930s had its roots in "the hostility toward competitive markets that characterized the first Roosevelt administration." Baxter, supra note 118, at 677.
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(non-member dealers who traded listed stocks over the counter) in the 1970s, whereas the London Stock Exchange did not face as significant a competitive challenge until the abolition of exchange controls introduced competition from overseas.\(^{147}\) On balance, then, this history suggests that governments enjoy no edge over self-interested exchange members faced with competition in eliminating fixed commissions.

The story is similar as regards the NYSE's Rule 390, which bans off-exchange trading of listed securities by exchange members while the exchange is open for trading.\(^{148}\) The governmental response was initially sympathetic to the exchanges' desire to maximize trading of listed stocks on the exchange. Indeed, the Exchange Act made it illegal for an exchange member to effect a transaction off the exchange in contravention of SEC rules.\(^{149}\) Over time, however, policymakers came to view the consolidation of trading of individual securities in a single market as anticompetitive. Accordingly, in the Securities Act Amendments of 1975, Congress commanded the SEC to create a "national market system" ("NMS") in which trading markets would be linked in the sense that customer orders would be routed to the market offering the best price and information on prices and quotes would be communicated continuously among markets.\(^{150}\)

Congress further instructed the SEC to remove exchange rules that would impede creation of the NMS.\(^{151}\) Although there can be little doubt that Congress had Rule 390 in mind, it was not until 1980 that the SEC instituted a partial repeal of the rule.\(^{152}\) The repeal related only to securities listed on the exchange after April 26, 1979.\(^{153}\) Jonathan Macey and David Haddock argue that the failure to institute a more comprehensive ban on off-exchange

\[^{147}\text{See id. at 24-25.}\]
\[^{148}\text{NYSE Rule 390, N.Y.S.E. Guide (CCH), ¶ 2390, at 3651 (Aug. 1994).}\]
\[^{151}\text{15 U.S.C. § 78k-1(b) (1994).}\]
\[^{153}\text{See id.}\]
trading restrictions was the consequence of agency capture by the specialists.\textsuperscript{154} Whether Macey and Haddock are correct or whether the SEC simply concluded that the issue was more complex than striking down a facially anticompetitive rule is irrelevant for present purposes. What matters is that Rule 390 survives in a weakened form despite an almost explicit congressional demand to eliminate it.

Regulators in the United States were not alone in finding off-exchange trading a difficult issue. Adoption of the European Union ("E.U.") Investment Services Directive ("ISD")—a set of E.U.-wide securities regulations—was delayed for roughly five years by a bitter fight over off-exchange trading rules.\textsuperscript{155} Some E.U. countries, led by France, had regulations that required all transactions, with some exceptions for institutional trades, to take place on a regulated exchange; these countries wanted the ISD to permit foreign brokers to offer services within their borders only on regulated exchanges.\textsuperscript{156} Other member states, led by the United Kingdom, permitted off-exchange trading and wanted their brokers to be free to offer trading services over the counter throughout the E.U.\textsuperscript{157} The compromise result was an ISD that permits some off-exchange trading throughout the E.U., but with all trades reported to host country authorities.\textsuperscript{158}

In theory, governmental regulation is preferable to exchange regulation if: (1) exchanges do not face competition; (2) exchanges use their freedom from competition to adopt rules that gain rents for exchange members; and (3) governmental regulation provides either a more efficient regime of property rights protections, a reduction in exchange members’ rents, or (preferably) both. Whatever one might conclude about the first two points, there is substantial evidence that the third condition is not met.

\textsuperscript{156} See id. at 770-74.
\textsuperscript{157} See id. at 765-69.
IV. WHERE DO WE GO FROM HERE?

The arguments advanced in Part II above indicate that the principal issues addressed by Congress in 1934—disclosure by listed companies, manipulation, margins, and short selling—would have been better left to the exchanges, and today would be better returned to them. Part III argues that while exchanges will sometimes be tempted to adopt anticompetitive rules, governments have done no better at encouraging the development of exchanges while maximizing competition.

How much difference would it make if governmental regulators simply withdrew from each of these areas? It might not matter much if regulators no longer sought to ban “anticompetitive” practices. The NYSE would surely not try to reinstate fixed commissions, any more than would the London Stock Exchange. The NYSE might apply a uniform off-exchange trading rule, but there would be a number of holes in it because exchange members have by now become used to arranging large trades off the floor of the exchange. The NMS would remain a partly finished work.

Listed company disclosure is one area in which a change would really matter. Were the exchanges permitted to determine their own disclosure standards for listed companies, it seems clear that the NYSE would conclude that the value to investors of strict adherence to U.S. accounting standards would be outweighed by the value of having more foreign companies traded on the Exchange. It would therefore offer listing to large foreign companies that were willing to comply with a more streamlined set of disclosure requirements. Time would tell whether such a move would enhance or reduce the Exchange’s reputation with investors, although for what it is worth I suspect that the Exchange would be proven correct. Indeed, of the issues discussed in this Article, returning authority over disclosure for listed companies to the exchanges would probably have the most visible effect.

As Marcel Kahan’s comments demonstrate, however, exchanges may not be good at some tasks we ordinarily associate with securities regulation. In particular, exchanges do not have gen-

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eral governmental powers and cannot easily sanction anyone who is not an exchange member or listed company or associated with one. Kahan also identifies a line-drawing problem. Who, for example, should regulate proxy solicitations: states as a part of corporate law or exchanges as regulators of listed-company disclosure?160

One way out of the problem that nevertheless preserves the benefits of competition is regulation by states along the lines advocated by Roberta Romano in a recent paper.161 To the extent the choice of law rule applied the law of the state of incorporation to such matters as periodic disclosure and proxy solicitations, the line-drawing problems between corporate and securities law would be eliminated or substantially reduced. Another advantage of state regulation is that competition among rulemakers will be more effective if the rulemakers have some control over how their rules are interpreted and enforced.162

The differences between regulation by states and regulation by exchanges might not be dramatic, particularly if both states and exchanges had or developed an understanding of each others' comparative advantages. Romano, for example, suggests that some states might choose to defer to exchanges on disclosure standards.163 In general, the line-drawing problem between corporate law and securities regulation is tractable given corporate law's tendency to provide default rules that can be altered by firms to suit the preferences of their claimants.164 Thus most exchange rules that regulate the behavior of listed companies are no more than contractual undertakings by the listed company to make particular choices from the menu of state corporate law.

On balance, the benefits of permitting exchanges to take advantage of their superior information about the rules that investors prefer and permitting states to take advantage of their superior ability to sanction likely outweigh the disadvantages of separating the rulemaking and enforcement functions. The pri-

160 See id. at 1515-16 & n.36.
161 See Romano, supra note 7, at 44.
162 See id.
163 Id.
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mary occasion for courts to become involved in policing the market conduct of buyers or sellers of securities who are not exchange members or listed companies would be when such parties commit fraud, which is a common governmental function in all markets. Exchanges would be the principal enforcers of their rules vis-à-vis listed companies and exchange members, and the sanctions available to exchanges (delisting or loss of membership) are sufficiently harsh punishment for all but substantial misconduct, for which courts would step in. This, too, is not at all novel. Employers, for example, typically police their employees' compliance with the employers' internal regulations using sanctions up to and including termination of employment. When the employee engages in more egregious misconduct such as embezzlement, however, the government's criminal processes take over.

It is not a substantial defect in exchange regulation that exchanges require governmental assistance to deter fraud. Even national governments—to say nothing of state governments—cannot singlehandedly punish fraudulent conduct that occurs within or has effects within their borders. Securities and their salesmen are highly mobile and those who engage in fraud can often put themselves beyond the reach of the regulator whose rules they have broken before the regulator can detect the violation. The detection and punishment of fraud, therefore, presents a compelling case for interjurisdictional cooperation. The growing tendency of governmental regulators to enter into agreements to cooperate in enforcing each other's rules against fraud is therefore sensible.

The detection and punishment of fraud is one of the few areas that obviously requires coordinated interjurisdictional efforts. For the remaining day-to-day issues of market structure and regulation of interactions among broker-dealers, investors, and listed companies, decentralized competitive decisionmaking by exchanges should work better than centralized mandatory rules.
CONCLUSION

In the debate over national versus multinational securities regulation, little attention has been paid to why governments wrested market regulation away from exchanges in the first place. I have tried to show that in the United States, this was done for reasons that seem, with the benefit of hindsight, quite weak. Exchanges have strong incentives to provide rules of market structure that investors want and to compel adherence by their members to contractual and fiduciary obligations. The externality and monopoly arguments to the contrary have some force, but ultimately the experience of stock markets before and after the onset of comprehensive governmental oversight does not provide strong support for those arguments.

The United States has a system of partial self-regulation in which exchanges determine market structure within somewhat narrow limits, but many issues that were once left to exchanges, such as disclosure requirements, margins, and the definition and deterrence of manipulation by exchange members, have been replaced by mandatory federal rules. As U.S. exchanges find themselves increasingly competing for listings and investors with non-U.S. exchanges, a return of authority over such issues to the exchanges would make them better able to meet these competitive challenges.