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Chapter Author: Lawrence J. White

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# International Regulation of Securities Markets: Competition or Harmonization?

Lawrence J. White

## 7.1 Introduction

Since World War II, the rapid improvements in the technologies—data processing and telecommunications—underlying financial services have increasingly allowed firms in these markets to offer more financial services over wider geographic areas. One important consequence has been the potential or actual internationalization of many financial services.<sup>1</sup> Firms in the financial services industries are increasingly operating and offering their services in multiple countries; savers and investors are increasingly willing to channel their capital flows across national boundaries; and borrowers and securities issuers are increasingly seeking sources of funds across those same national boundaries.

In this environment, the national regulatory regimes that were designed for an earlier era, when financial markets were largely local or national in scope, are under strain. National regulators are clearly concerned about their ability to exercise their regulatory authority in this era of international flows and functions.<sup>2</sup> It is no accident that a number of international coordinating organizations—for example, the Cooke (Basel) Committee for commercial banks and the International Organization of Securities Commissions (IOSCO)—have been formed during these recent decades.

A recurring plea by national and international regulatory officials is that important aspects of financial regulation should be harmonized internationally—in essence, made uniform across the major countries involved in these

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Lawrence J. White is the Arthur E. Imperatore Professor of Economics at the Stern School of Business, New York University.

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1. For general discussions, see Stoll (1990); Kosters and Meltzer (1990); Siegel (1990); Fingleton (1992); Edwards and Patrick (1992); and Stansell (1993).

2. See, for example, Walker (1992); Breeden (1992); Guy (1992); and Quinn (1992).

financial services.<sup>3</sup> This, it is claimed, will create a “level playing field” for market participants and prevent a “race to the bottom” among competing countries’ regulatory regimes, which would harm financial market participants. There are others, however, who believe that much national financial regulation has the effect (whether by design or by inadvertence) of *preventing* the efficient allocation of resources by financial markets.<sup>4</sup> In this view, the harmonization of these regulations would reinforce and perpetuate these inefficiencies, and *competition* among regulatory regimes would likely enhance the efficiency of capital flows.

This paper provides an analytical framework for evaluating these conflicting approaches to the international regulation of financial services. In this paper, I focus primarily on securities markets,<sup>5</sup> but the lessons are valid for other financial services as well. The framework that I employ is that of analyzing both “market failure” (the structural conditions under which a market may fail to deliver the efficiency results promised by the textbook model of competition) and “government failure” (the reasons that government regulation may fail to correct and may even exacerbate the market imperfections that an omniscient and benevolent government might otherwise be expected to eradicate).<sup>6</sup> I argue that this framework applies to competition between exchanges and between national regulatory regimes as well as to competition between firms.

Using this framework, I find that there may be some regulatory areas where effective harmonization could improve the efficiency of securities markets. But in many other areas, competition among regulatory regimes is likely to be the best way to achieve efficiency in capital markets. One of the major goals of this paper is to provide the basis for distinguishing between the two approaches.

This paper proceeds as follows: In section 7.2, a vocabulary and taxonomy of different types of regulation—useful for the analysis that follows—is established. Section 7.3 discusses the main categories of market failure and relates these categories to the types of regulation that might be used to remedy them; it also outlines the major sources of government failure. In section 7.4, I pull these strands together to analyze the harmonization-versus-competition questions. Section 7.5 offers a brief conclusion.

## 7.2 Types of Regulation

For the purposes of this paper, I define regulation to mean any nonfiscal governmental intervention (i.e., excluding specific taxes or subsidies) in the

3. See the references cited in footnote 2. See also Grundfest (1990); Steil (1992, 1993); Worth (1992); and Karmel (1993).

4. See Kane (1991, 1992); Benston (1992a); and Steil (1992, 1993).

5. By securities markets, I mean the markets (which need not be organized around an exchange) for financial instruments of all kinds, including foreign exchange; in essence, I am excluding primarily the financial intermediation that occurs directly through banks, insurance companies, and pension funds (though these institutions are often involved in transactions that encompass the instruments that are the focus of this paper).

6. This approach is somewhat similar to that followed by Wolf (1989).

operation of private-sector markets. This regulation can be in the form of laws passed by legislatures, formal edicts issued by regulatory bodies, or informal guidance or interpretations offered by a government agency. This definition of regulation clearly encompasses a broad range of governmental intervention in markets. But regulation is not simply an undifferentiated mass of governmental intervention. It is possible to find commonalities among major types of regulation, which will prove useful for the discussion in the later sections in this paper. I offer three major categories.

*Economic regulation* usually involves limitations on prices, profits, and/or entry into or exit from an activity.<sup>7</sup> Familiar examples outside the financial services area would include the pre-1980s regulation of airline prices and routes by the U.S. Civil Aeronautics Board (CAB); the regulation of local electricity, natural gas, and telephone company prices and profits by individual state regulatory commissions; and limitations on local taxicab fees and entry by many cities.

Within the financial securities area, the pre-1970s blessing by the U.S. Securities and Exchange Commission (SEC) of the New York Stock Exchange's (NYSE) system of minimum fixed commissions would be one example; the American Glass-Steagall Act's limitations, which largely prevent commercial banks from entering the securities business and prevent securities firms from operating commercial banks, are a second;<sup>8</sup> limitations by various national governments as to what kinds of firms (including a determination of the nationality of their owners or their country of incorporation) can engage in various kinds of securities activities are a third.<sup>9</sup>

*Health-safety-environment (H-S-E) regulation* typically involves mandated changes in production processes and/or product qualities or types.<sup>10</sup> Nonfinance examples include the U.S. Federal Aviation Administration's safety requirements for airlines (including minimum requirements for their aircraft, pilots, and procedures); the U.S. Food and Drug Administration's (FDA) safety requirements with respect to pharmaceuticals and food additives; the U.S. Environmental Protection Agency's maximum limits on the emissions of air pollutants from electric utilities (and other stationary sources) and from motor vehicles; and the U.S. Occupational Safety and Health Administration's requirements for workplace safety.

In the securities area, examples would include the SEC's minimum capital requirements for broker-dealers; its requirement that securities firms' "registered representatives" should be licensed, should "know their customers," and should recommend only investments that are suitable for the specific circum-

7. For overviews, see Breutigam (1989); and Joskow and Rose (1989).

8. Loopholes, discovered by sharp-eyed lawyers in the 1980s, have allowed a few commercial banks to engage in securities underwriting and have allowed some securities firms to operate "non-bank banks."

9. These limitations extend beyond considerations of safety and soundness.

10. Together with information regulation, this form of regulation is sometimes described as "social regulation." For an overview, see Gruenspecht and Lave (1989).

stances of their customers; its requirement that only accredited investors (e.g., institutions) be allowed to purchase private-placement securities; and its requirement that money market mutual funds limit their holdings of low-quality commercial paper.

*Information regulation* typically involves the requirement that sellers attach specified types of information to the goods and services that they sell. Nonfinance examples include the U.S. Department of Transportation's requirement that an airline's ads for special fares should include (in fine print) the major details of the special fares' limitations; a state utility commission's requirements that electric or telephone utility bills include specified types of information; the FDA's requirements for labeling to accompany pharmaceuticals and processed foods; and a local taxicab commission's requirement that a cab driver's name and license number be prominently displayed.

In the securities area, examples of information regulation abound: for example, the SEC's requirements that issuers of publicly traded securities should disclose extensive information at the time of issuance and then disclose extensive information at periodic intervals and on a uniform (generally accepted accounting principles, or GAAP) basis; its requirement that mutual funds should report yield information on a specific and standardized basis; and its requirements that a publicly traded company's insiders disclose their holdings and trading activities.

These three regulatory categories are not airtight and may blur at the edges. Some forms of economic regulation may have some real or alleged H-S-E justifications or effects (e.g., the CAB's airline regulation or the Glass-Steagall restrictions). Also, the CAB's entry restrictions on airlines clearly impeded the development of an important production technology ("hub and spokes" scheduling), which emerged only after deregulation; and profit limitations in the form of rate-of-return restrictions are likely to influence input choices in production.<sup>11</sup> Further, virtually all forms of H-S-E and information regulation have some cost consequences, with implications for prices, profits, and possibly even entry. Nevertheless, the intent, form, and direct consequences of these three types of regulation are generally distinct enough that this typology is useful for furthering our understanding of regulatory goals, processes, and effects.

## **7.3 Market Failure and Government Failure**

### **7.3.1 Market Failure**

What might justify the forms of regulation just described? In principle, perfectly competitive markets ought to achieve efficient outcomes without the

11. This is frequently described as the Averch-Johnson effect; for a summary, see Baumol and Klevorick (1970).

need for any governmental intervention. But real-world markets may exhibit one or more types of “market failure” that would preclude their achieving those efficient outcomes. These market failures can be categorized as follows.

*Market power.* If one or a few sellers are present in a market and entry is not easy, the quantity sold is likely to be smaller and the equilibrium price is likely to be higher than would be true for an otherwise similar competitive industry. This is frequently described as the problem of monopoly or oligopoly.

Market power can arise (when entry is not easy) through explicit or implicit collusion among sellers (e.g., price-fixing conspiracies); through mergers that significantly reduce the numbers of firms and increase their market shares, thereby making explicit or implicit collusion easier; through technological conditions (e.g., economies of scale) that limit the number of efficient-size firms that can serve a market (e.g., the monopolies of local exchange telephone service or of local electricity generation); or through government restrictions that prevent entry and thereby protect market incumbents (e.g., the CAB’s restrictions on entry into the airline industry). In the securities area, the pre-1970s agreement among NYSE member firms as to minimum brokerage commissions collectively gave those firms market power. The protected position of specialist market makers in most stocks listed on the NYSE similarly gave them market power. Specialists today in stocks where trading volumes are insufficient to permit competitive market makers may still enjoy some residual market power.

*Economies of scale.* The presence of economies of scale may serve as a source of pricing inefficiency even if the seller is not exploiting market power. If the technology of production in a relevant market is such that larger volumes (per unit of time) always imply lower unit costs,<sup>12</sup> then the efficient outcome of setting price equal to marginal costs may not be feasible, since it would not allow the firm to recover its full costs. Systems of local telephone service or electricity distribution may be of this nature. In the finance area, securities markets appear to exhibit economies of scale, since greater volumes of transactions (greater liquidity) are usually accompanied by smaller transaction costs (narrower spreads).

*Externality (spillover) effects.* If, as a consequence of a firm’s production or an individual’s consumption, there are direct and uncompensated effects on others—negative or positive—outside of a market framework, then the market outcome (even with a competitive structure) will not be efficient. With negative externalities (e.g., air or water pollution or traffic congestion), too much of the

12. This is a separate phenomenon from that of a “learning curve,” which involves reductions in unit costs as a consequence of the accumulated production volume over any extended period of time. This latter phenomenon more closely resembles a process of gradual technological change.

good or service will be produced or consumed, and the price will be too low; also, too little effort and resources will be devoted to correcting or reducing the externality. With positive externalities (e.g., when one firm learns about improved production processes because of the efforts of other firms), too little of the good or service will be produced, and its price will be too high; also, too little effort will be devoted to enhancing the externality.

The usual source of externalities is the absence or poor specification of property rights and/or difficulties in enforcing them. For example, problems of air or water pollution can arise from the absence of clearly defined property rights in clean air or water and/or the free-rider problems that would accompany any single party's efforts to enforce its property rights. In the securities area, an example of negative externalities would be the negative consequences for other securities firms if the fraudulent actions of one firm were to cause the public to believe that other firms could or would act fraudulently; an example of positive externalities would be one firm's learning about another firm's development of a new securities product and thereby being able to develop and offer a similar product.

*Public Goods.* A "public good" is one in which the marginal costs of an extra party's enjoying the benefits of the good are relatively low or zero and exclusion from those benefits is difficult or impossible. In essence, a public good is one in which the positive externalities are substantial and pervasive.<sup>13</sup> Again, competitive markets will produce too little (or none) of the good or service, and its price will be too high. The provision of national defense, a police force's accomplishments in reducing the level of criminal activity in a community, a community's effort to control or eradicate mosquitos, and an individual's creation of an idea (information) that is useful to others would all be examples of public goods.

In the securities area, the previous example of one firm's developing a product that other firms can copy would qualify as an example of a public good; similarly, the price established in one market for a security may be useful to participants in other markets and would constitute a public good, as would the information developed by a securities analyst for distribution to his or her clients.

*Uncertainty and the absence of complete knowledge.* If individuals do not have complete knowledge about the present and future choices that are before them, they face uncertainty and risk as to the consequences of their choices and actions. Since most individuals are likely to be risk averse, they are likely to take ameliorating or offsetting actions—for example, acquiring information, forming portfolios, hedging—to reduce their risk exposure. These offsetting

13. Many of the phenomena that are identified as negative externalities, such as air and water pollution, are thus really "negative public goods."

actions often mean that additional resources must be expended. Also, with the presence of any uncertainty, individuals' ex ante choices may yield ex post mistakes.

In the securities area, uncertainty and incomplete information are pervasive, but a major fraction of securities services offered are designed to ameliorate or offset the effects of uncertainty: for example, the services of research firms and of rating firms; the diversified portfolios offered by mutual funds; and the options, futures, and swaps instruments that are now an active part of the securities world.

*Asymmetric information.* Problems of "asymmetric information" arise when a party on one side of a transaction has relevant information that the other side does not have.<sup>14</sup> For example, a seller of a good or service is likely to know more about its qualities and properties than does the buyer; an agent (e.g., a lawyer) is likely to know more about its actions than is the principal (e.g., a litigant) on behalf of whom the agent is expected to perform services; a borrower is likely to know more about its own prospects of repaying a loan than is a lender; a buyer of insurance is more likely to know about its own risk characteristics and the risk consequences of its prospective behavior than is a seller of insurance.<sup>15</sup> In the absence of any amelioration of these conditions, market participants may initially be "burned" by the outcome of these transactions but then learn to adjust their behavior—perhaps by participating less in these transactions. Output of the relevant good or service is likely to be lower than if the asymmetric information phenomenon did not exist. Over time, markets may develop institutions and practices—for example, information-generating entities, certifying agencies, reliance on reputation, reliance on "signals"—that can ameliorate the problems of asymmetric information. But these institutions and practices, in turn, involve costs and imperfections that would not be present if the asymmetric information problem were somehow absent.

Securities markets are an area where the problems of potential or actual asymmetric information are pervasive. Securities issuers know more about themselves than do prospective purchasers of the securities. Corporate managers know more about their activities than do shareholders or bondholders. A stock broker knows more about the quality of his or her services and recommendations than do the customers. Various information-based institutions—

14. For an overview, see Stiglitz (1989).

15. These asymmetric information phenomena can usefully be grouped as "hidden information" problems (the "lemons" problem of the buyer's knowing less about the qualities of the seller's product than does the seller, or the "adverse selection" problem of the insurance company's knowing less about the risk attributes of its insureds than do the latter) or as "hidden action" problems (the "agent-principal" problem of the buyer of services knowing less about the agent's actions than does the latter, or the "moral hazard" problem of the buyer of insurance engaging in more risky behavior because it is covered by insurance than it would if it did not have coverage). See Arrow (1985).



accounting firms, securities analysts, research firms, rating agencies, investment advisers—have developed and flourished in efforts to ameliorate these problems of asymmetric information, although these institutions in turn are likely to embody their own potential problems of asymmetric information.

*Individuals who are unable to know their own best interests.* If individuals do not know their own best interests, then even complete information will not prevent mistaken choices. This form of market failure is generally different from the problem of asymmetric information. If individuals are overwhelmed by the complexity of choices—for example, judging the safety of an airline or the quality of a hospital's services—they may rely on agents to help them (but with concomitant agent-principal problems). But if individuals do not know their own best interests, they may not even realize that they should be relying on agents, and they are unlikely to learn from their mistakes.

This “widows and orphans” approach to individuals’ behavior is clearly a popular one for legislators, as is evidenced by numerous regulatory laws—including laws in the securities area—that require that “unsafe” products and services be banned from markets (rather than allowing individuals, or their agents, to make their own choices and trade-offs). Even if it is an accurate characterization of a portion of a society (beyond the categories of “children” and “mentally incompetent” to which it clearly would apply), the presence of others who are capable of making sensible choices then poses a difficult problem of how best to deal with safety issues in a society with diverse decision-making capabilities.

*Problems of “second best.”* If an uncorrected market imperfection or failure exists in one market, then it will generally be true that unhindered competition in that market or in a related market (i.e., one in which there are demand or supply consequences from the initial imperfection) will not yield socially optimal results (see Lipsey and Lancaster 1956–57).

### 7.3.2 A Caveat and a Linkage

This listing of the major forms of market failure may initially encourage the impression that virtually all markets are ripe for governmental intervention. After all, few (if any) real-world markets would fit the textbook ideal of a perfectly competitive market. As will be argued below, however, governments also are far from perfect. The notion of the omniscient and benevolent governmental agency that can perfectly correct the failures of the private sector is also a textbook construct that few (if any) real-world government agencies could replicate. In sum, since both real-world markets and real-world governments exhibit varying degrees of imperfection, the actual policy debate concerning regulation (e.g., whether to regulate, how to regulate, the breadth of regulation, etc.) must always involve choices among imperfect markets and imperfect governments.

Subject to this caveat, this listing of the sources of market failure can be linked to the types of regulation discussed in section 7.2. The problems of market power and of economies of scale may be best treated through economic regulation;<sup>16</sup> externalities, public goods, and individuals' being unaware of their own best interests may be best approached through H-S-E regulation;<sup>17</sup> the problems of incomplete information and asymmetric information may be best approached through some combination of H-S-E and information regulation; and problems of "second best" are, in principle, the domain of any form of regulation.

### 7.3.3 Government Failure

Though government regulation can in principle improve the efficiency of imperfect markets, governments too can fail to deliver their promised outcomes, and their efforts at intervention can cause the efficiency of markets to deteriorate rather than increase. This government failure can occur for a number of reasons.

*Difficulty in formulating clear and implementable goals.* Without the specific profit goal that motivates most private enterprises, a government agency may well be buffeted by diffuse goals (e.g., improve the economy's efficiency, improve the economy's income or wealth distribution, avoid economic disruptions, treat individuals fairly) that are likely to be conflicting and difficult to translate for specific implementation. Overarching goals (e.g., "serve the people") may be even more subjective and open to conflicting interpretations and haphazard implementation.

*Weak (or absent) incentives.* Again, without profit incentives or the threat of bankruptcy, the diffuse goals of a government agency may make difficult the development of incentives to motivate government employees to work toward those goals. Also, societal values concerning income distribution and greater equality of incomes are more likely to hold sway in the public sector, making a link between a government employee's performance and his or her wages (with the likely consequences of wage differentials) more difficult to implement. Further, agency personnel may act in ways that enhance the importance and security of their own jobs rather than pursuing the larger public interest that is supposed to be the mission of their agency.

*Difficulties of management.* To be effective, organizations have to be well managed. With diffuse goals, government agencies are likely to be more difficult

16. Government ownership and taxes and subsidies are other possible tools of intervention.

17. Again, taxes (effluent fees) and subsidies are other possible tools for dealing with externalities and public goods. The creation and enforcement of property rights in "intellectual property" (i.e., patents, copyrights, and trademarks) is yet another way of dealing with the public goods problems that arise in the context of the creation of ideas and information.

to manage than are organizations with more specific goals. And in any event, good management is a relatively scarce skill that usually commands premium wages in an economy. The egalitarian ethos that makes performance-linked pay difficult to implement in government agencies also tends to cause compression in the overall government wage scale, so that low-skill jobs are usually overpaid (as compared to their private-market counterparts) and high-skill jobs are underpaid. As a consequence, governments frequently have difficulty in attracting and retaining highly skilled individuals, including managers, and government effectiveness suffers.<sup>18</sup>

*Inadequate information.* Government agencies may be no better at acquiring and using information than private-sector entities.<sup>19</sup> Indeed, the previously described problems of incentives and management would argue that government agencies may well have substantial difficulties in this respect. But with inadequate information, government agencies are likely to be plagued by the same types of problems and inefficiencies that were raised as potential market failures for private-sector entities. Regulatory controls based on poor information could well be costly; government regulators are likely to face asymmetric information problems vis-à-vis their regulated entities.<sup>20</sup>

*Rent-seeking behavior.* In an economy of gain-seeking individuals, those who are significantly affected by government action are unlikely to remain passive.<sup>21</sup> Instead, they are likely to try to influence governmental processes to achieve outcomes that are favorable to themselves (“rent seeking”) and will find worthwhile the expenditure of considerable resources (ranging from outright bribery and corruption to more subtle lobbying and promises of electoral support) in efforts to twist government policy and actions in their favor. Even if these rent-seeking individuals and groups do not succeed in affecting policies (i.e., in “capturing” an agency or a legislature, as is discussed below), their efforts may well use up substantial real resources.

*Rent-creating capture.* Comparatively small groups of individuals who are potentially affected a great deal by government actions will have the most to gain

18. Government agencies may be able to attract some highly skilled individuals who hope to acquire the specific skills related to government operation and then leave to use those skills in the private sector. For example, the U.S. government has been able to attract young lawyers, even though its entry-level pay scale has been below the levels of the private-sector alternatives. But the flow of skilled human resources at senior levels is usually one-way—from government to the private sector—with the exception of short-term political appointments. The exceptions to this overall pattern are individuals who strongly believe that government service has an important intrinsic value and are willing to enter and remain in government service despite unfavorable pay differentials vis-à-vis the private sector.

19. For overviews and further discussion, see Stiglitz (1988, 1990).

20. For an overview, see Baron (1989).

21. See Krueger (1974); and, for an overview, Noll (1989).

from organizing themselves to influence government policy in their favor. Their success in achieving rent-creating policies—for example, regulatory protection—is likely to be at the expense of the general public. The latter, with each individual suffering only a small loss as a consequence of the altered policies, find the organizational costs of trying to oppose the changes to be too high. Consequently, rent-creating “special interest” regulatory measures and outcomes are likely to prevail, at the expense of the general population and of efficiency in the economy.<sup>22</sup>

*Pursuit of income redistribution.* A society may well decide that it is dissatisfied with the income distribution among individuals that would arise as the consequence of the workings of markets, whether those markets are operating perfectly or imperfectly. Government action is the vehicle for redistribution, and regulation can be an important means of implicitly affecting the distribution of income (see Posner 1971) (though taxes and subsidies are more common and more direct). But these actions surely create inefficiencies, even if they are successful at redistributing income (see Okun 1975). Further, the greater is the perceived legitimacy of government as a redistributive force, the greater is the potential for the rent-seeking behavior and rent-creating capture discussed above.

Regulatory efforts to achieve “fair” outcomes—as is true of much regulation in the securities area—would fall into this same general category. Though the regulation may apparently be aimed at correcting specific imperfections (for example, informational deficiencies or asymmetries or market power problems), the inclusion of “fairness” as a goal will usually imply some explicit or implicit notions of income redistribution (as compared with what an unregulated market would yield).

#### 7.3.4 A Stronger Caveat

The combination of rent-seeking and rent-creating behavior and societal concerns encompassing income distribution and “fairness” can create potent regulatory forces that impede the efficient functioning of markets. The American regulatory landscape is littered with instances in which government agencies have practiced extensive economic regulation with the proffered justification of restricting the exercise of market power but with the reality of protecting and enhancing it. Examples at the federal level include airlines, rail transportation, trucking, banking, stock brokerage commissions, long-distance telephone service, and broadcasting; examples at the state and local levels include trucking, banking, long-distance and local telephone service, and taxicabs.<sup>23</sup>

22. See Stigler (1971); Posner (1974); Peltzman (1976); and, for an overview, Noll (1989).

23. Discussion and examples can be found in Phillips (1975); Weiss and Klass (1981, 1986); and Joskow and Rose (1989).

Further, the regulatory goal of cross-subsidy—achieving income redistribution by keeping prices paid by some users above long-run marginal costs so as to be able to use the surplus to keep the prices paid by other users below long-run marginal costs—has been an additional force for the employment of the tools of economic regulation in ways that protect and enhance market power. If prices are to be kept above long-run marginal costs, entrants must be prevented from “cream-skimming” or “cherry-picking” these supraprofitable markets, and market incumbents must also be protected from “excessive” competition among themselves in these markets; hence, these regulatory regimes must prevent entry and restrict competition among incumbents. Many of the perverse examples of economic regulation that were just cited have involved, at least in part, efforts to achieve cross-subsidy.

At first glance, H-S-E regulation would seem less susceptible to the forms of abuse and perverse application just described. But there are “winners” and “losers” arising from virtually every H-S-E regulatory action; and the combination of less-than-omniscient regulatory bodies, rent-seeking and rent-creating behavior, and the importance of “fairness” as a societal goal can lead to regulatory efforts and outcomes that involve substantial market distortions and inefficiencies.<sup>24</sup> The mantle of H-S-E goals can also serve to cloak protectionist and exclusionary measures, such as the Glass-Steagall Act’s barrier between commercial banking and investment banking.<sup>25</sup>

Further, the costs of regulation can have disproportionate effects on some types of firms as compared with others; for example, there are frequently substantial fixed costs to complying with H-S-E regulation, which thereby favors larger firms (which can spread these costs over larger volumes of output) over smaller firms.<sup>26</sup> If the form and extent of the regulation is otherwise appropriate, then these are just the legitimate social costs of doing business, which may have the same kind of uneven effects as the purchase of a necessary but expensive piece of equipment.<sup>27</sup> But if the type or extent of regulation is inappropriate and it has an uneven impact (e.g., disadvantaging smaller or newer firms), protectionism in outcome—and possibly in intent—is an added feature of such regulation.<sup>28</sup>

Information regulation almost always has costs as well as benefits and thus is susceptible to the same problem of potential inappropriateness of types and levels as was just described for H-S-E regulation. And, though information

24. For examples and further discussion, see White (1981); Gruenspecht and Lave (1989); and Viscusi (1994).

25. Similarly, safety claims are sometimes used to justify the Bank Holding Company Act’s general separation of commercial banking and insurance.

26. This disproportionate impact on small firms is exacerbated when H-S-E regulation takes the form of “design standards” (i.e., a specific process or type of equipment is mandated) rather than “performance standards” (i.e., a specific result on performance is required). The latter type of standard would give smaller firms greater flexibility in meeting a given requirement.

27. Again, the inflexibility of design standards would exacerbate the impact.

28. For a discussion, see White (1993) and the references cited there.

regulation is less likely to be explicitly exclusionary, the combination of inappropriate levels and large fixed costs is likely to have implicit exclusionary effects on smaller firms.

In sum, the real-world imperfections of government have yielded numerous instances of the regulatory process's being used for abusive purposes and reaching inefficient outcomes. Indeed, the deregulation movement of the late 1970s and the 1980s was a reaction to these abusive purposes and inefficient outcomes, especially in the economic regulation areas.<sup>29</sup> These abuses need not lead to the conclusion that all governmental regulation should be forsaken. But they do point toward constant caution in embracing new regulation (national or international) and toward the value of frequent reassessments of the motives, methods, and outcomes of existing regulatory regimes.

## 7.4 Harmonization versus Competition

### 7.4.1 The Widening Scope of Competition

The process of competition among firms can be analyzed as occurring within the confines of a market; indeed, one useful definition of a market is the collection of sellers that are in effective competition with each other.<sup>30</sup> This market may be embodied in a formal structure, with a physical representation and legal ownership framework, as is true for securities exchanges; or the market may simply be a group of firms that are effectively competing with each other.

As the costs of transacting over longer distances fall (e.g., because of improvements in the technologies of transportation, telecommunications, and/or data processing), markets widen: buyers and sellers that are located farther apart can now more easily transact with each other. Also, if changes in production or product technologies allow incumbent firms more easily to produce and sell a wider array of products and/or allow new opportunities for entrants, markets are again widened: buyers face more sellers that are competing for the former's purchases.

In the absence of formal market structures, the process of market widening is fully described by the larger numbers of sellers and/or buyers that are encompassed. To the extent that groups of sellers initially believe that they constitute a local market and then find themselves enmeshed in a larger market, the description below of wider competition among formal market structures, such as exchanges, may apply as well; a local trade association may be the vehicle through which the concerns of the local group are expressed.

29. See, for example, Weiss and Klass (1986); Joskow and Rose (1989); White (1993, n.d.); Winston (1993); and Joskow and Noll (1994).

30. This is approximately the market definition approach underlying the "Merger Guidelines" that guides U.S. merger antitrust policy. See U.S. Department of Justice (1992); and, for discussion, Kwoka and White (1994).

But where formal market structures are present, there is an additional element: the wider markets mean that the formal market structures (e.g., securities exchanges) themselves are in competition with each other—for sellers as well as buyers (see Bradley 1992). In essence, with improved technology both buyers and sellers can “evade” (or arbitrage) any higher costs of transacting in a “local” market by conducting their transactions in a more “distant” market—where “distance” may represent either geographic mileage or the extent of product dissimilarity. Securities exchanges in the United States have historically experienced such market widening as well as the concomitant intensified competition: geographically separated stock exchanges have increasingly competed among themselves (and with the less formally organized Nasdaq market system) for members, for listings, and for order flow. The stock exchanges have increasingly competed with the exchanges that trade other (but somewhat similar) kinds of instruments (e.g., options and futures). All exchanges are increasingly competing with over-the-counter (OTC) transactions in stocks and in customized swaps, options, and futures. And in the 1990s, the U.S. markets and exchanges are facing increased international competition, as are the markets and exchanges located in other countries.<sup>31</sup>

Similarly, if regulatory regimes have responsibility for local markets or exchanges, the widening of the markets represents a potential erosion of their authority: buyers or sellers can more easily evade these regimes’ regulatory strictures (if they are burdensome) by transacting in an out-of-jurisdiction market or exchange. Previously separate and autonomous regulatory regimes are increasingly conscious of each other’s jurisdiction and potential for snaring transaction volumes by reducing their regulatory burden. To the extent that regulatory agencies are concerned about avoiding the loss of transactions from their jurisdictions—because of concern as to the possible consequences for buyers or sellers within their jurisdictions of such out-of-jurisdiction transactions,<sup>32</sup> or because of worries by agency personnel that reduced within-jurisdiction volumes might bring into question the size of their agency and perhaps even the justification for their agency—they are thereby implicitly or explicitly in competition with each other.<sup>33</sup>

Again, the American experience is instructive. So long as the widening of securities markets remained within the United States and was largely confined to equity instruments, the SEC did not feel seriously threatened, although it

31. It is worth noting that the globalization of markets has displayed a pattern that is quite consistent with the predictions of the asymmetric information paradigm. An overview (Bodner 1990) describes the process of globalization as most advanced for foreign exchange, next for government obligations, third for corporations’ debt (bonds), and least for corporate equity markets. This ranking is consistent with the transparency and simplicity of the various types of instruments and the information disadvantage that nonnational transactors would experience relative to national entities.

32. For example, the regulators may be concerned that within-jurisdiction sellers are unduly losing sales or that within-jurisdiction buyers are not being adequately protected.

33. See, for example, Scott (1977); Bloch (1985); Isaac (1994); and Coffee (1995).

clearly felt more comfortable dealing with the NYSE and its member firms and was somewhat worried about its weakened control over OTC and off-floor transactions. With the rise of the financial options and futures markets in the early 1970s—largely in Chicago, away from the SEC's traditional eastern seaboard focus—and the establishment of the Commodity Futures Trading Commission (CFTC) in 1975 to regulate some of these markets,<sup>34</sup> however, the SEC faced more serious challenges to its authority and jurisdiction. Its two decades of coexistence with the CFTC have been marked by alternating periods of open political battles for jurisdiction, uneasy political truces, and sporadic efforts at harmonization (see, e.g., Kane 1986 and Johnson 1992). And both agencies now face international competition in the 1990s—as do the national regulatory agencies of other countries.

A current regulatory issue typifies the SEC's concerns about transnational regulatory competition:<sup>35</sup> Should the SEC maintain its requirements that all companies whose equity shares are listed for trading in the United States (on an exchange or in other markets) must report their financial information according to U.S. GAAP? Or will unyielding insistence on this requirement cause non-U.S. companies (for whom a restatement of their financial information to conform with U.S. GAAP is an extra cost) to decline to list their shares for trading in the United States, thereby disadvantaging U.S. exchanges and market makers? But would relaxation of the GAAP reporting requirements for all firms mean that U.S. investors would be less well informed and protected? Or if the SEC relaxed the GAAP reporting requirements only for non-U.S. firms, would U.S. firms be somehow disadvantaged? And would U.S. investors in these non-U.S. companies' shares thereby be at an information disadvantage because of the less-complete information that they would receive? But, if the SEC maintains its strict GAAP requirements, will U.S. investors simply evade the SEC's efforts to protect them by purchasing these non-U.S. companies' shares through markets or exchanges abroad, albeit with larger transaction costs?

#### 7.4.2 Some Generic Answers

We can now restate the questions that have motivated this paper. In an environment of near-global securities competition, when (if ever) is international harmonization of national securities regulation likely to improve the efficiency of securities markets? Conversely, when (if ever) is an absence of international harmonization, and thus a process of implicit or explicit competition among national regulatory regimes, likely to improve the efficiency of securities markets?

34. The CFTC also acquired regulatory authority over the agricultural and mineral (metals) commodities futures markets. The former set of markets had previously been regulated by the U.S. Department of Agriculture; the latter set had been largely unregulated.

35. For further discussion, see Edwards (1992); Freund (1993, 1995); Shapiro (1993); and Torres (1993).



The framework of section 7.3 provides a basis for generic answers to these questions:<sup>36</sup> for international harmonization to be potentially worthwhile, there must be some form of market failure (e.g., market power or externality) that transcends national boundaries and for which individual national regulatory efforts are somehow inadequate. But even in such instances the dangers of internationally harmonized *government failure* should lead to caution in endorsing a harmonization approach.

The application of these principles to securities markets leads to the following general approach to the international harmonization questions.

*Proharmonization.* The conditions under which international harmonization of a specific regulatory provision could improve the efficiency of securities markets would be one or more of the following: (1) The specific national regulatory provision is efficiently addressing a genuine market-failure condition and “evasive” transactions abroad would somehow undermine that effort. (2) The process of harmonization itself may be a vehicle for relaxing the stringency of protectionist national regulations that have created pockets of market power. (3) The process of harmonization itself may be a means of simplifying and making more uniform a diverse set of different national rules and procedures, with the consequence of lowering the transaction costs for those who try to transact on a multinational basis. (There is a separate question—whether harmonization, even if desirable, can succeed in an environment of international competition—to which we will return below.)

*Procompetition.* The conditions under which international competition among specific regulatory requirements could improve the efficiency of securities markets would be one or both of the following: (1) The regulatory provision is not efficiently addressing a genuine market failure but instead is the product of one or more of the government-failure conditions and is thereby a force for decreased efficiency; evasive transactions abroad are thus a proefficiency response (albeit an unnecessarily costly one) to the regulation; harmonization (to the extent it succeeds) would only buttress the national effort at inefficiency; by contrast, international competition of regulatory regimes would reduce the likelihood that the inefficient regulation could persist and would thereby increase efficiency. (2) The forced uniformity that harmonization would bring would mean too great a loss of diversity and of valuable adaptations to local (national) conditions; also, even if uniformity at the proper regulatory standard would be better (e.g., because of cost savings) than local diversity, the risk that a forced harmonization would occur at an inappropriate regulatory standard (because of the foibles of government failure) is too great.

36. A somewhat similar framework was adopted by White (1986) in addressing the question of competition among states to attract industry and by Bebchuk (1992) to address and review the literature on the competition among states to be the state of incorporation for U.S. companies. See also Steil (1992, 1993); Key and Scott (1991, 1992); and Benston (1992a, 1992b).

In my judgment, competition—whether among firms, among markets and exchanges, or among national regulatory regimes—ought to be the “default option”; that is, in the absence of a strong showing that there is a substantial market failure and that the problems of government failure can be overcome so as to create a reasonable likelihood that government intervention will improve outcomes, the competitive outcome should prevail. For the harmonization-versus-competition controversy, this position would imply that those who favor the international harmonization of specific national regulatory provisions should bear a substantial burden of making a convincing case. As is discussed below, there do seem to be specific instances where international harmonization may well be desirable; but the presumption should be in favor of competition, and a strong affirmative case for harmonization must be made in these specific instances.

### 7.4.3 Some Specific Examples

Most of the discussions of international harmonization of national regulation have been at a very broad level of generality and vagueness, and it is often difficult to determine exactly what regulatory provisions are candidates for harmonization. No one seems to be suggesting that the entire multivolume pile of U.S. laws and regulations that are the province of the SEC and the CFTC should be subject to international harmonization. But the specific regulatory provisions that might be the subject of harmonization are often unstated. Accordingly, the use of the regulatory classification system of section 7.2 is a reasonable way to proceed in examining some specific areas where harmonization might be worthwhile and others where harmonization is likely instead to be yet another instance of government failure dominating and worsening the market outcome.

#### *Economic Regulation*

As was discussed in section 7.3, economic regulation in principle can be a means of correcting the problems of market power. Where it is doing so effectively, the process of harmonization seems unnecessary; indeed, the widening of markets and of competition is likely to aid the process of limiting market power. But, as was also discussed in section 7.3, economic regulation in practice has frequently been the means by which market power has been protected and enhanced, often in the service of cross-subsidy. In this context, international competition is a threat to national regulation, and harmonization could be a vehicle for buttressing these anticompetitive national regulatory provisions and worsening market outcomes. There are at least two examples outside the field of financial services where an international coordinating and harmonizing organization has substantially reinforced market power and restricted competition: the International Air Transport Association (IATA) in the field of airlines (see Kasper 1988) and the United Nations Conference on Trade and Development (UNCTAD) for ocean shipping (see White 1988). These are cau-

tionary counterexamples for anyone who might advocate international harmonization of national economic regulation.

Nevertheless, it is possible that harmonization could serve as a vehicle for *decreasing* the levels of national regulatory protectionism (i.e., decrease local market power) and subsidy. The General Agreement on Tariffs and Trade (GATT) is a useful example here. If the GATT, as a consequence of the Uruguay Round of negotiations, or IOSCO could be the vehicle for mutual reductions in the restrictive national regulatory treatments of nonnational financial service providers—under the guise of harmonization—the results could be beneficial indeed. There is, of course, the possibility that such efforts could be transformed into a defense and strengthening of protectionism; the IATA and UNCTAD counterexamples should constantly be remembered for their cautionary value, and the American regulatory experience has been that some regulatory bodies whose initial mandate was to limit market power were transformed over time into defenders and protectors of market power. Still, the value of harmonization here could be great, and any vehicle through which it could be pursued should be encouraged.

#### *H-S-E Regulation*

At first glance, the globalization of securities transactions would seem likely to extend to international markets the externalities and spillover effects that motivate some forms of national H-S-E securities regulation and thus would seem to justify harmonization to help control these effects. Upon closer examination, however, the argument is more complicated. I explore specifically the issues of systemic risk and price-and-market relationships.

*Systemic risk.* Concerns about market disruptions linked to the “systemic risk” caused by the failure of one or more financial services firms—arguably, a form of externality—is a dominant concern of national regulators. Much of the panoply of national safety-and-soundness (prudential) regulation of commercial banks (e.g., minimum capital requirements, limitations on suitable investments, extensive examination and supervision procedures) and the minimum capital requirements and other safety requirements for securities firms are motivated by this regulatory concern about the consequences of insolvency and failure.

Before asking whether these national concerns are a legitimate basis for seeking international harmonization, it is worth considering the reasons why a firm’s insolvency and failure can have externality effects on financial markets. There are two alternative scenarios of systemic risk that are usually offered. The first might be termed the scenario of cascading failures: the insolvency failure of one large financial firm (commercial bank or securities firm) would rapidly lead to a series of other failures, as firms that were substantial creditors of the initial firm are thereby thrown into insolvency, with consequent effects

on yet more firms, and so forth.<sup>37</sup> This was one of the scenarios that motivated U.S. bank regulators to keep an insolvent Continental Illinois open in 1984, rather than closing and liquidating it (see Sprague 1986); and it is a scenario that is often offered in discussions surrounding the risks of the operations of the large interbank funds transfer systems, such as FedWire and the Clearing House Interbank Payment System (CHIPS).<sup>38</sup> It is instructive, though, that the failure of Drexel Burnham Lambert in early 1990 did not have any serious cascading consequences.

The second scenario of systemic risk could be termed one of depositor runs: the fear of an insolvency failure (real or imagined) of a large institution causes depositors to run (withdraw their deposits in the form of cash) on the institution and on other institutions that they fear might be in similar straits. The anticipation of such depositor runs, which could (at a minimum) impair an otherwise nonfearful depositor's timely access to the liquidity of his or her deposits and could even lead to the premature closing and liquidation of an otherwise solvent bank, may itself spark runs (see Diamond and Dybvig 1983).

Closer examination of the first scenario reveals the heart of that version of the problem: the asymmetric information ("moral hazard") problems related to financial institutions' extending sizable amounts of credit to each other for short-term periods, often as short as a few hours within a trading day. The primary responsibility for correction of this problem should be on the institution that is *extending* the credit. Regulatory requirements of adequate capital levels, so that the firm can better withstand loan losses of any kind, are vital, as are limits on its loan exposure to *any* borrower. Or if virtually all of a firm's exposure occurs through its transactions with other members of an exchange, the exchange may be an appropriate vehicle for ensuring payment; but the exchange similarly must be adequately capitalized and must have a mechanism for limiting exposure.

U.S. banking regulations already encompass limits on a commercial bank's exposure on commercial loans to any single borrower. The concept underlying these limits is a sensible one, and it should be broadened to include all extensions of credit for any length of time by any type of financial institution where a cascading systemic risk problem may be present. *Further, the logic of this position leads quickly and sensibly to the conclusion that minimum capital requirements for financial institutions (banks or securities firms or exchanges) should be applicable on a continuous (real-time) basis, rather than the periodic "snapshot" (e.g., end of calendar quarter) basis that currently applies.* A firm's exposure to default by others is on a continuous time basis, not just at discrete

37. The "cascading failure" scenario could be exacerbated by the "depositor run" scenario described below.

38. See Humphrey (1986); Dudley (1986); and the discussions in England (1991) and in the references cited in footnote 1.

time intervals; the minimum capital requirements that protect its liability holders should therefore be binding on a continuous time basis.

With these changes, national regulatory provisions should be adequate to prevent cascading consequences from institutional failures even in a world of major international interinstitutional financial flows. So long as national regulatory agencies can ensure that their home-country institutions have adequate capital on a continuous basis and are not unduly exposed to default by any borrower on a continuous basis, systemic risk can be contained nationally. International harmonization is not needed.

Close examination of the depositor-runs version of the systemic risk problem shows that it is a genuine externality problem (compounded by asymmetric information): each depositor's act of withdrawing cash increases the probability that other depositors will be unable to exercise their option to withdraw cash, thereby inducing the latter to move even earlier, and so forth. It is a problem of potential contagion.

At the national level for commercial banks, a combination of a lender of last resort, a deposit insurer, and a strong safety-and-soundness regulator that relies heavily on economic incentives (e.g., risk-based minimum capital requirements that are derived from a market value accounting system, the use of subordinated debt as a required component of capital, and risk-based deposit insurance premiums) should be adequate to deal with the problem (see, e.g., White 1991, 1992). There are problems of how to deal with the local subsidiary and branch operations of a bank that is headquartered abroad but that offers deposit services to local residents (see Key and Scott 1991, 1992); but these can probably be handled adequately through cooperation and information exchanges among national regulators. Similarly for securities firms, some form of insurance arrangement for customers and sensible safety-and-soundness regulation (again, encompassing economic incentives) should be adequate, with some international cooperation necessary for dealing with overseas branches, and so forth.

In principle, the problem of depositor runs could extend across national boundaries; in practice, the less sophisticated depositors or securities customers who would be the most likely "stampedes" would be unlikely to be major transactors with banks and securities firms located outside a country. The transnational transactors are likely to be more sophisticated (or have more sophisticated agents) and be more knowledgeable, and fear-driven contagion effects seem less likely. Again, it appears that national regulatory efforts should be adequate, and international harmonization is not necessary. In this respect, it is worth noting that the 1991 failure of the Bank for Credit and Commerce International (BCCI) did not exhibit significant contagion effects, nor did the 1990 failure of Drexel.

Is there any value to the harmonization achieved by the Basel Accord on minimum capital levels for commercial banks and by IOSCO's efforts for a similar agreement on capital standards for securities firms? Despite the previ-

ous conclusions, there is positive value from these harmonization efforts—but the rationale in support of these harmonization efforts is more subtle than the two systemic risk arguments that have just been rejected. *The value of these harmonization arrangements is primarily in limiting the implicit subsidy that most governments seem prepared to provide to their major financial institutions.*<sup>39</sup>

This rationale can be most clearly seen for the case of commercial banks. With or without the presence of explicit deposit insurance, most governments appear to be unwilling to force depositors to absorb the losses that would otherwise fall on them when major home-country banks become insolvent.<sup>40</sup> Though governments may be vague *ex ante* about their likely reactions, their *ex post* behavior has been consistent with this statement.<sup>41</sup> In essence, governments are absorbing the losses of these insolvent institutions and are thereby subsidizing risk taking by banks. International competition among banks (and their regulatory regimes) places extra pressures on the banks to reduce their direct funding costs by reducing their capital levels. Competitive regulatory regimes accede, since they are reluctant to put the banks within their jurisdiction at a cost disadvantage. But with lower capital levels, banks are more susceptible to failure and have greater incentives to engage in riskier behaviors, thereby raising the likelihood of failure and thus raising the level of subsidy.

The Basel Accord, by establishing a uniform set of minimum capital standards, makes this competitive regulatory behavior more difficult and thus serves to limit the competitive subsidy process.<sup>42</sup>

To the extent that governments would not be willing to have the creditors of securities firms absorb the losses from those failures, the same argument would

39. One should ask why it is in the interest of country B's residents to prevent country A's government from subsidizing A's banks. (After all, consumers in importing countries should generally applaud when the governments of exporting countries subsidize their exports.) There are two answers. First, if country B's banks are more efficient than A's banks, the subsidy will discourage B's banks from exporting their services to A and will also disadvantage them in competition in third markets; A's subsidy is inflicting genuine (Pareto-deteriorating) harm on B. Second, B's government may experience pressures (see the discussion of government failure) to respond with its own subsidies.

40. The failure of BCCI, with substantial losses to depositors, is an exception, but it is an explainable one. No country considered BCCI to be its responsibility; and the British government, which might have been the most concerned, was unlikely to be especially responsive to the political pressures of the depositor groups (immigrants from African and Asian Commonwealth countries) that were most affected.

41. For example, in late 1993 and early 1994, the governments of Spain, France, Japan, and Venezuela separately indicated that they would absorb specific bank losses in their countries, so as to avoid imposing losses on liability holders.

42. Also, the Basel Accord may have a secondary effect in reducing the problems of cascading failures or depositor runs. However, though the Basel Accord points in the right direction, it is substantially flawed: its broad risk categories have no obvious empirical foundation; they ignore portfolio considerations; they ignore interest rate risk; and they are based on a cost-based historical book value accounting framework rather than a market-value accounting framework. Also, as discussed in the text below, it may be very easy for countries to "cheat" on the accord if they choose to do so.

apply to IOSCO's efforts to develop harmonized capital standards for securities firms.

*Prices and markets.* A frequent concern by market makers and exchanges is that "outside" firms will free ride on the information—especially the price information—generated by the market. The outsider will thereby benefit and divert transactions away from the exchange. An additional concern is that such diversions will reduce the transaction volumes in the primary market, with consequent reductions in its liquidity and increases in its volatility. Finally, there are concerns that some market makers or exchanges may be willing to provide less transparency to transactions and will thereby attract the transactions of those who gain from reduced transparency. The competition among markets (and regulatory regimes) for this order flow may well lead to securities markets that generally have less transparency.

These concerns about the relationships among markets have been the basis for calls for greater international harmonization of regulatory provisions that would solve or ameliorate these problems. Again, though, closer examination is warranted.

It is clear that the information yielded by a market, including its level of transparency, is a public good in the sense defined in section 7.3, and public goods can generate the problems described. But there may be less drastic measures that can ameliorate the problem.

With respect to the price information provided by markets, the relevant market maker or exchange could be assigned the property rights in the market's information. This property-rights approach, which is similar to the way that other problems related to the creation and dissemination of information (intellectual property) in market-oriented economies are handled, would reduce free riding but need not unduly discourage the possible development of new forms of market making (see, e.g., Bronfman and Overdahl 1993). Further, it would be worthwhile for the exchanges themselves to investigate how their costs relate to the services that they provide and whether they are pricing those services appropriately. For example, the value of a dealer's or market maker's capital is to serve as a buffer during adverse circumstances (e.g., unexpectedly volatile conditions). During favorable times, the market maker's capital is redundant; during adverse times, it is vital. In essence, the market maker's costs of making an orderly market are lower during favorable times and higher during adverse times. The market maker's prices (e.g., spreads) for its services should reflect those differential costs. To try to maintain uniform spreads across good times and bad is to maintain a form of cross-subsidy—which, as was noted in section 7.3, will invite entry and "cherry picking."

With respect to market fragmentation, the rapid improvements in telecommunications and in data processing that have caused the apparent fragmentation of local markets have also improved the ability of transactors to arbitrage across these local markets and thus have widened and deepened the overall market. Fragmentation may well be more of an illusion than a reality.

Finally, transparency is a problem that probably has no easy solution. Though all transactors would like to be the recipients of the information that greater transparency would yield, larger transactors are reluctant to provide the necessary information about their own actions and positions. If required to do so by a market, they will try to find another forum where they are not required to do so—either another formal market or informal (and even less well reported) transactions among themselves. Paradoxically, an insistence on too great a level of transparency could reduce the actual levels of transparency achieved.

International harmonization of national transparency requirements might prevent a competitive regulatory “race to the bottom,” but it might instead simply drive large transactors away from organized markets and result in even less information’s being generated. The dangers of the latter outcome seem great enough that harmonization should only be attempted gingerly, or not at all.

### *Information Regulation*

The needs of national regulators to enforce regulations that are information-intensive—for example, restrictions on insider trading or on front running—can probably be satisfied through cooperation and information exchanges among regulatory regimes. Harmonization is not necessary.

For information regulation itself, however, the issues are more complex. The SEC’s dilemma with respect to non-U.S. firms, mentioned earlier in this section, is a good illustration. If U.S. investors persist in investing in the non-U.S. companies, there is little that the SEC can do. It might make the investors’ efforts a bit more difficult by refusing to allow any securities firm located in the United States to act as an agent for investors in these transactions. But if the U.S. investors persist and simply transact with agents abroad, then even more financial services will have been diverted from U.S. providers.<sup>43</sup>

The SEC is trying another tack: it is allowing these firms’ securities to be sold in the United States without a restatement of the financial results to U.S. GAAP, but limiting their purchases to institutions; in essence, these securities are being treated as private placements.<sup>44</sup> Does this system of dual listing mean that U.S. firms are at a disadvantage? This would be true only if U.S. investors do not find the greater information provided by U.S. GAAP to be worth the extra costs to the U.S. firms of conforming to GAAP, or if the SEC’s reporting requirements are largely designed to remedy the “widows and orphans” type of market failure discussed in section 7.3.

Ultimately, though, because other countries are unlikely to harmonize their accounting systems to U.S. GAAP (just so the U.S. markets could gain more

43. In principle, the SEC could go even farther and try to forbid U.S. investors from even owning the securities of firms that do not report according to U.S. GAAP. In practice, this would be a system of capital controls that is unlikely to be politically acceptable in the United States or in other countries.

44. See Seidman (1991); Doty (1992); Kokkalenios (1992); Schimkat (1992); and Torres (1993).



listings?), the SEC may have to ask difficult questions as to whether its stringent reporting requirements for U.S. firms are necessary—especially in light of the evidence offered in a recent study that indicates that the lesser reporting requirements of other countries' securities regulators may be adequate to prevent small investors from being at a disadvantage vis-à-vis larger (and possibly more knowledgeable) investors (Baumol and Malkiel 1992).

The eventual harmonization of reporting requirements across the countries with major financial markets could well be worthwhile. The major advantage would be a savings in transaction costs, since investors (and accountants) would need to learn and become familiar with only one set of accounting rules and their applications. (As a thought experiment, it is intriguing to imagine the transaction costs that would be present if each state in the United States had its own version of GAAP and required companies operating in that state to report their financial results in terms of that state's GAAP.) In essence, the accounting frameworks of these countries would become fully compatible with each other.<sup>45</sup> There are, however, potential costs. One danger is that diversity and the suitability of local accounting frameworks to local circumstances, and the opportunities for local experimentation within those frameworks, would be lost. Further, even though harmonization on a single accounting system might be worthwhile if the "right" system were chosen, the process of harmonization might result in the choice of some other framework, yielding a worse outcome than the current (albeit imperfect) pattern of diversity.

An analogy may prove useful here. A compatible nationwide system of railroads with a uniform rail gauge has great value in reducing the transaction costs that would otherwise occur in transloading freight between incompatible rail systems. But different rail gauges might be best suited to different geographic terrain or different types of freight, and the advantages of this diversity are lost when uniformity is achieved. Also, if uniformity were somehow achieved with only a very narrow or a very broad gauge, the outcome of uniformity (in terms of the costs of hauling freight) might be worse than the nonuniform system.

There is no automatic answer to the question of whether the uniformity of a single accounting framework across all countries would be superior to the current pattern of different national systems.<sup>46</sup> But the possibility that harmonization could yield gains is real and is worth further exploration.

#### 7.4.4 Is Harmonization Feasible?

A final question worth considering is whether agreements among countries to harmonize and limit competition among their regulatory regimes are fea-

45. For discussions of compatibility, see Braunstein and White (1985); and Economides and White (1993) and the references cited therein.

46. In essence, the choice between a single system and the current diverse system is similar to asking whether a system of monopolistic competition in equilibrium provides too many or too few varieties. The answer, as shown by Spence (1976) and Dixit and Stiglitz (1977), is "it all depends."

sible; or whether the perceived private advantages of competition and the competitive instincts of the countries would be too strong. In the latter case, they would be tempted to “cheat” on any harmonization agreement, and such agreements might soon unravel.

Any harmonization arrangement is likely to have multiple facets and multiple unspecified details that could leave plenty of room for competitive maneuvering. For example, the Basel Accord on minimum capital levels for commercial banks specifies only the broad categories and risk weights but leaves many definitions and details unspecified; most important, it is silent on the details of the accounting system that should be the basis for the calculation of capital levels. This flexibility gives national regulatory regimes wide room for competitive manipulation, and over time the erosion of the accord could become substantial.

In sum, any international harmonization arrangement that is designed to dampen competition among national regulatory regimes must face the same problem that confronts all cartel arrangements: how to prevent “cheating” by cartel members, which can cause the arrangement to unravel. Strong economic, political, and moral commitments by member countries will be necessary to make these arrangements work.

## 7.5 Conclusion

The question of whether the national regulation of near-globalized securities markets should be subjected to international harmonization or international competition does not have an easy or simple answer. In this paper, I have used the concepts of market failure and government failure to provide a framework for considering the alternatives. Though international competition has a great deal of appeal and a strong presumption favoring it, there are some limited circumstances where harmonization could yield significant benefits. Refining these possibilities and ensuring that any harmonization does indeed yield net benefits for the efficiency of securities markets will be a major task for public policy—national and international—in the coming decade.

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## Comment      John Y. Campbell

Lawrence White's paper has many admirable features. Most basically, it starts from scratch, asking what precisely are the sources of market failure that might justify government regulation of securities markets in the first place. As a newcomer to the study of financial regulation, I have been confused by the tendency of many commentators to presume that the rationale for regulation is commonly understood, when to me, at least, it remains mysterious.

I also admire the paper's balanced treatment of government failure. It is one thing to identify a market failure, quite another to argue that government intervention is the most practically effective way to address the problem. And it is hard for any dispassionate observer of the U.S. system of banking and financial regulation to believe that this structure is in any sense optimal or precisely targeted at particular market failures.

Finally, with some qualifications I agree with White's view that competition between regulators—domestically and, more importantly, internationally—is likely to improve outcomes. The rest of this comment reviews White's taxonomy of market failures and suggests some modifications, then proposes a taxonomy of regulatory responses to international competition and discusses the choice among these responses.

### **The Taxonomy of Market Failures**

The early items on White's list are the "usual suspects" of microtheory: market power, economies of scale, and externalities. In unregulated financial markets, market power is usually thought to arise from economies of scale. For example, it is sometimes argued that a securities exchange is a natural monopoly because traders can obtain greater liquidity and lower effective transaction costs the more traders are already using a market. However, this argument seems less compelling today in light of the evidence that different classes of traders may prefer different types of exchange. The phenomenon of "competition for order flow" seems to belie the notion that an exchange is a natural monopoly.

There is a stronger case for the importance of externalities in financial markets. Perhaps most obviously, financial innovators, like other innovators, provide an uncompensated benefit to their competitors who can imitate their new products. Patent and copyright law are ineffective in limiting such imitation, just as they are in the computer software industry. Some economists have argued that lenders, be they banks or venture capitalists, provide an uncompensated benefit to their competitors who can observe the average return on their investments (Lang and Nakamura 1989). In a rather different spirit, some argue that financial institutions that take on risk impose uncompensated costs on

other participants in the financial system by increasing the risk of a general financial crisis. It is hard to model this “systemic risk externality” formally, but many practitioners and regulators take it to be the most important justification for financial regulation. Finally, “network externalities” may be important in financial markets. Accounting conventions, for example, may be like other social conventions in that their value increases with the number of people who use them. Unregulated markets may have multiple Pareto-ranked equilibria, and there may be a case for government intervention to help society coordinate on the best equilibrium.

So far so good, but the paper’s list of market failures becomes more problematic as it continues. Uncertainty and asymmetric information are certainly important in financial markets, but they do not by themselves justify regulation. Individuals who cannot act in their own best interests may need investor protection, but I am uncomfortable with this argument because it can justify almost any government action.

I am more sympathetic to some arguments for financial regulation that the paper does not mention. A sophisticated version of the *investor-protection* argument considers the ex ante consequences of ex post compensation schemes. Such schemes have the potential to create a moral hazard problem as agents who expect to be compensated for future misfortunes lose the incentive to protect themselves. One can understand a wide range of government activity in these terms. Society’s unwillingness to tolerate poverty among the elderly led first to old-age relief and then to the social security system. Society’s compassion for victims of natural disasters led first to disaster relief and then to building codes. In banking, the desire to protect depositors and the payments system led to the establishment of deposit insurance in the 1930s; the savings and loan debacle of the 1980s has been an expensive reminder of the fact that deposit insurance gives banks incentives to take excessive risks, which must be offset by regulation. In financial markets more generally, regulation may be necessary if small investors expect to be compensated for losses and act accordingly.<sup>1</sup> While the best solution may be to limit compensation and expectations of compensation, this may not always be possible.

The *revenue* argument recognizes that regulation may be necessary to maintain the government’s tax base. Given that all realistically feasible taxes are distortionary, the optimal tax system may require some taxation of the financial system with accompanying regulation. Some countries raise large amounts of revenue through seigniorage, which is effectively a tax on bank reserves; this requires regulation to inhibit banks’ efforts to economize on reserves and to limit competition from nonbank financial institutions.<sup>2</sup> Other countries have

1. A variation of this argument considers the costs imposed on society by investors’ efforts to obtain compensation. Litigation over Lloyd’s of London insurance losses, for example, is likely to tie up the British court system for years.

2. It has been estimated that the recent deregulation of the Spanish banking system has cost the Spanish government revenue of about 1 percent of GDP.



significant securities transaction taxes; the United Kingdom, for example, raises about \$1.5 billion per year from its stamp duty on transactions in British equities. Some regulation is inevitable if such taxes are to raise any revenue.

I believe that these two arguments for financial regulation are at least as important as the standard ones cited in White's paper. In addition, one should not forget that a major motive for regulation, if not exactly an argument for it, is to protect the market power of domestic financial institutions whose interests are represented by regulators.

### **Alternative Regulatory Responses to International Competition**

It is useful to supplement the taxonomies given in the paper with a classification of regulatory approaches to international competition. Regulators can handle international competition in four ways. First, they can deny foreign access to domestic customers, thereby restoring autarky and the market power of domestic financial institutions. Second, they can allow foreign access to domestic customers but apply domestic regulations; under this approach, foreign competition erodes the market power of domestic financial institutions but not the market power of domestic regulators. Third, regulators can allow foreign access to domestic customers subject to foreign regulations. This is the approach of the European Union's Single Market; a financial institution or product is presumed to be sound if it is approved in its home market. Finally, regulators can negotiate to harmonize regulations so that the second and third approaches become equivalent.

It is sometimes argued that international competition is so potent that regulators do not really have these choices. On this argument, only the third and fourth options are available to regulators. This ignores the fact that governments do have some control over domestic customers through their power to define which contracts are legally enforceable and which are not. U.S. states use this power to regulate insurance provided to their residents, and the United Kingdom uses this power to regulate ownership transfers in U.K. equities.

If all four approaches to international competition are feasible, how should we judge their relative merits? The first approach serves only the interests of domestic financial institutions, but there are some arguments in favor of each of the other approaches. The second approach seems appropriate where there are differences across countries in the optimal degree of financial regulation. Countries may differ, for example, in the degree to which small investors accept the principle of *caveat emptor* and thus in the extent of investor protection they require. Different payments systems may involve different regulations to limit systemic risk, and different tax systems may require different supporting regulations. It is often argued that regulations should be harmonized across countries to maintain a level playing field; this argument applies to regulations that discriminate between domestic and foreign *suppliers* of financial services, but may not apply to regulations that discriminate between domestic and foreign *demanders* of such services.

The third approach has the great merit, emphasized in White's paper, that it maintains competition among different national regulators. Competition serves to reduce the direct costs of regulation and the indirect costs of compliance, and it limits the tendency of regulators to stifle financial innovation. The importance of this is brought home by Franks and Schaefer's (1993) comparison of direct regulatory costs in the United States, the United Kingdom, and France. Franks and Schaefer report that direct costs of regulation of securities and options trading are 1.3 percent of noninterest expense in the United States, but only 0.5 percent in the United Kingdom. For life insurance, the differences are even more dramatic; direct regulatory costs are 0.12 percent of premium income in the United States, but only 0.04 percent in the United Kingdom and 0.03 percent in France. If the higher costs of U.S. regulation do not correspond to benefits for consumers of financial services, then they represent an inefficiency that may be reduced by international regulatory competition.

An important question is how one can reconcile regulatory competition with the desire of regulators to protect domestic investors. One approach is for regulators to draw a clear distinction between domestically regulated and guaranteed financial institutions and products and other institutions and products, which can compete on the basis of their own national regulations and guarantees. This is analogous to the "narrow banking" proposal under which deposit insurance would apply only to certain strictly regulated banks, while other banks would compete without the regulatory burden but also without the benefit of deposit insurance.

Finally, international harmonization may be useful where there are important externalities in the international financial system. International agreements establishing common accounting conventions and reporting requirements can be seen as a device for coordinating financial markets on a superior equilibrium in which information is cheaper to provide and easier to understand. Similarly, agreements to establish international netting schemes may reduce risks in the international payments system. The growth of derivatives trading makes this an increasingly important area for international cooperation.

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## Comment Mary Ann Gadziala

The topic Lawrence White selected for discussion raises issues that are both intellectually stimulating and highly relevant to current international regulation. A significant challenge presented by the explosive movement toward full globalization of the securities markets is ensuring that the regulatory structure promotes efficient, competitive, stable, and safe global markets. White has posed an important question: Would capital markets benefit more from “harmonization” of rules or from “competition” among regulatory regimes? He concludes that there is a strong presumption favoring international competition and that national regulation of near-globalized securities markets should be subjected to international harmonization in only certain limited circumstances.

I agree with that specific conclusion. However, I would approach the analysis in a somewhat different manner. For purposes of my analysis, the worldwide securities markets would be viewed as the market, regulation as the product, and the various national regulators as competitors creating the product.

To parallel White’s analysis, I would begin with the *theoretical* question of whether the market would be better served by harmonization, which creates monopoly regulation, or by competitive regulation. This is a theoretical question because there is no “world congress” or similar entity that might impose such monolithic harmonized regulation. In the current international securities market, any movement toward uniformity—or harmony in the broad sense—could be achieved *only through the competitive process*.

Therefore, the second and *key* question in my analysis is, In what circumstances will the competitive process among national regulators lead to diversity and in what circumstances will it lead to homogeneity of international regulation?

I would like to take a few minutes to elaborate on each of these questions.

### **Monopoly Harmonization versus Competition**

First, let’s explore the theoretical question of whether harmonization or competition in international regulation would best serve our securities markets. Preliminarily, it should be noted that mandated harmonization would be a major undertaking, since it would necessitate the creation of a mechanism to impose monopoly regulation on the world securities markets. Beyond that cost, we should analyze the costs and benefits of the respective processes: harmonization and competition.

The current debate over the structure of the bank regulatory system in the

Mary Ann Gadziala is senior adviser (market regulation) at the Securities and Exchange Commission.

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United States offers some valuable insights. On the national level, harmonization can be real, rather than theoretical. The U.S. Treasury has proposed virtually complete mandated harmonization of U.S. federal bank regulation—one superregulator to replace the four current regulators. The Treasury argues that this would reduce costs by eliminating inconsistencies, inefficiencies, and duplication. Recognizing that these superficial benefits may be achieved, the Federal Reserve and the majority of U.S. banks have opposed the harmonization. They have argued that

- a monolithic monopoly regulator would become inflexible;
- there would be no diversity of regulatory views to eliminate bad proposals and moderate incentives for lax supervision;
- the monopoly regulator would be likely to swing from excessive toughness to ease, based upon cyclical complaints; and
- the healthy process of dynamic tension in setting balanced regulatory standards would be lost.

The elements of this debate may be an appropriate starting point for the analysis of regulatory harmonization versus competition on the international level.

### **The Competitive Process May Lead to “Harmonized” Rules**

This brings us to the main question: In what circumstances will the competitive process among national regulators result in some form of “harmonized” international regulation? This analysis might be aided by considering some examples where the competitive process is now at work.

While the regulatory competitive process is dynamic, continually in play in the market, the process is generally widely dispersed, and convergence may occur at a slow evolutionary pace. This would make analysis difficult. Therefore, for purposes of analysis, it may be best to examine the operation of the process in an international forum—such as the Bank for International Settlements or the International Organization of Securities Commissions. These organizations were created to accelerate the competitive process in a closed setting where information is concentrated. We might look specifically at capital requirements where a minimum standard was established for bank credit risks, but no consensus was reached for securities firms. We might also look at accounting standards where agreement was finally reached on a standard cash flow statement, but work continues on further accords.

The competitive process requires the various regulators to deal with such factors as legal and market segmentation; unique market characteristics; differing developmental levels; and societal, cultural, and prudential needs. Regulatory regimes are analyzed, defended, and rethought, balancing competitive and customer protection interests. Market stability, integrity, and prudential concerns are key. It is also through this convergence process that “market and government failures”—as discussed by White—may be corrected. Examining

all of these factors in situations where consensus was reached, and where it was not, should provide valuable insights for generalizing the circumstances where the competitive process leads to “harmonized” international regulation.

In the case where national regulators have competed to an equilibrium level and agreed upon a regulatory standard, it is not set in stone. It is important that the standard be appropriately implemented and enforced. However, divergence is not necessarily “cheating”; it may in fact be an appropriate continuation of the competitive process to ensure that regulation remains state-of-the-art and responsive to innovative market developments.

One additional point is worth noting—harmonization and competition are at opposite ends of a continuum of international regulation. Along that continuum, other alternatives—such as mutual recognition or bilateral accords—may maximize benefits to the market in particular circumstances.

In conclusion, there is no existing mechanism for subjecting the regulation of international securities markets to monopoly harmonization. Harmonization can be achieved only through the competitive process among national regulators. This process operates continually with the goal of creating a regulatory structure that maximizes the stability, integrity, resilience, and competitiveness of our interdependent capital markets. At times, the competitive process may lead to diversity in international regulation; at other times, it may lead to homogeneity or harmony.

As the chairman of the Securities and Exchange Commission said in a recent speech, this process must be “one that meets our common needs, without forsaking our individual mandates.” Finding and maintaining the appropriate balance, through the competitive process among national regulators, is indeed a difficult challenge in the current, dynamic international securities market.