Stock Exchanges and the New Markets for Securities Laws

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INTRODUCTION

For nearly a decade, leading scholars have bemoaned the absence of what can be termed a market for securities laws.[1] Unlike the federalist structure of US corporate law, which may incentivize some states to compete for corporate charters, no competition for firms animates the enactment of national securities laws. Instead, the federal government has enjoyed a virtual monopoly over the provision of securities laws. Ever since the passing of the Securities Act of 1933[2] ("Securities Act") and the Securities Exchange Act of 1934[3] ("Exchange Act"), firms have generally had to comply with US securities laws when selling their stocks and bonds to American investors. And because US stock exchanges were the most liquid in the world, there was little danger of foreign multinationals going elsewhere to raise capital. As a result, federal regulators have had few incentives to formulate efficient regulatory policies.

A revolutionary transformation of global equity markets is, however, currently underway. American stock exchanges are no longer unrivaled venues of capital market activity. Instead, foreign exchanges have developed liquid markets of their own, and now consistently attract over 90 percent of the world's initial public offerings (IPOs) and half of all investor activity.[4] The success of foreign exchanges has sparked

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1 The notion that such a market is missing in securities regulation was popularized in Roberta Romano's seminal article. See generally Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 Yale L J 2359 (1998) (advocating competitive federalism for securities regulation where states compete for investors by offering different sets of securities laws).

2 15 USC §§ 77a–77bbbb (2000).

3 15 USC §§ 78a–78mm (2000).

4 Committee on Capital Markets Regulation, *Interim Report of the Committee on Capital Markets Regulation* 2 (Nov 30, 2006), online at http://www.capmktsreg.org/pdfs/11.30Committee_Interim_ReportREV2.pdf (visited Aug 29, 2008) ("Interim Report") (stating that the US share of

consolidation in the trading industry as US stock exchanges, including the behemoth New York Stock Exchange[5] (NYSE) and Nasdaq,[6] have moved to acquire major European competitors in order to regain market share. These new transatlantic combinations will have significant implications for the regulation of securities. Perhaps most important, US exchanges will be able to provide an alternative through their foreign affiliates' listing services for companies seeking to avoid costly disclosure and corporate governance regulations like the Sarbanes-Oxley Act of 2002[7] ("Sarbanes-Oxley" or SOX) that attach when securities are traded in the United States.

Several scholars have acknowledged that the growing competitiveness of foreign exchanges and capital markets may pressure US regulators to provide regulation that more effectively attracts issuers to the United States,[8] a perspective which is likely to gain currency as American regulators incur significant reputational losses in the wake of the US-generated credit crisis.[9] However, virtually no commentator has provided a theoretical framework for assessing these developments in the securities industry.[10] Academics have instead largely fo-

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global IPOs declined from 48 percent in the 1990s to only 6 percent in 2005, and its share of global stock market activity dropped from 60 percent in 2000 to 50 percent in 2005).

5 See *NYSE and Euronext in $20bn Merger*, BBC News Online (June 2, 2006), online at http://news.bbc.co.uk/2/hi/business/5039412.stm (visited Aug 29, 2008) (reporting that the NYSE agreed to buy the pan-European Euronext exchange in response to competitive pressures).

6 See Nick Clark, *Nasdaq Poised to Complete OMX Deal*, The Independent (UK) 40 (Jan 3, 2008) (reporting that Nasdaq will take over the Nordic group OMX after it concedes a 19.9 percent stake in the combined company to Borse Dubai).

7 Sarbanes-Oxley Act of 2002, Pub Law No 107-204, 116 Stat 745, codified at 15 USC § 7201 et seq (2006).

8 See, for example, James D. Cox, *Rethinking U.S. Securities Laws in the Shadow of International Regulatory Competition*, 55 L & Contemp Probs 157, 157 (1992). See also Eric J. Pan, *Why the World No Longer Puts Its Stock in Us* *9 (Cardozo Legal Studies Research Paper No 176, Dec 2006), online at http://papers.ssrn.com/abstract_id=951705 (visited Aug 29, 2008).

9 See Philip Stephens, *The Financial Crisis Marks Out a New Geopolitical Order*, Fin Times 9 (Asia ed, Oct 10, 2008). Some commentators and leaders have furthermore argued that the United States will lose its superpower status in the world of international finance. See Bertrand Benoit, *German Minister Predicts US Will Lose Financial 'Superpower Status,'* Fin Times 1. See also Andrew E. Kramer, *Moscow Says U.S. Leadership Era Is Ending*, NY Times A6 (Oct 3, 2008). As a result, regional financial centers have sought to displace now largely discredited US capital markets. See Ariana Eunjung Cha, *Financial Hubs See an Opening Up at the Top*, Wash Post D01 (Oct 1, 2008). The degree of success they will have is, however, unclear.

10 Notably, John Coffee has perceptively argued that cross-listings between exchanges may create pressures on regulators to provide credible, and often stringent, regulation. See generally John C. Coffee, Jr., *Racing towards the Top?: The Impact of Cross-listings and Stock Market Competition on International Corporate Governance*, 102 Colum L Rev 1757, 1757 (2002). However, this account focuses primarily on how stricter US regulations may pressure foreign regulators to provide more stringent regulation, not the other way around. See Larry E. Ribstein, *Cross-listing and Regulatory Competition*, 1 Rev L & Econ 97, 99 (2007) (noting that Coffee's model involves a "limited" form of regulatory competition in which a firm opts into a stricter regime in the United States). Stephen Choi and Andrew Guzman have also emphasized the

cused on the lack of regulatory competition that has historically informed the process by which US securities laws were formulated. Consequently, the thrust of much of the most visible scholarship in the field has been the need for (or opposition to) various reforms in which securities regulators would directly compete for transactions.[11] These accounts have been vital in helping to better theorize the appropriate level of protection for US investors. Yet without fully appreciating the increasing availability of foreign sources of capital, scholars have overlooked key developments in corporate finance that are already dramatically increasing the competition among virtually all of the world's securities regulators.

This Article aims to remedy this deficiency by providing a deeper institutional account of the market forces driving the provision of securities laws. Its central claim is that US regulators no longer enjoy a de facto monopoly over the provision of securities laws. Instead, recent innovations in the way in which stock exchanges create liquidity (an organizational characteristic referred to in the finance literature as exchange "microstructure") have helped make possible not only a market for the services exchanges provide but also a dynamic market for securities laws.

This Article in particular identifies two new forms of regulatory competition enabled by evolutionary changes in stock exchanges. First, it identifies what can be viewed as a "public" market for the provision

impact of internationalization of capital markets; and although they do not discuss the structure of markets, they do note that with the interconnectivity of markets any policy change in one country has the potential to initiate transnational activity through a shift in investments across countries, including, presumably, the United States. See Stephen J. Choi and Andrew T. Guzman, *National Laws, International Money: Regulation in a Global Capital Market*, 65 Fordham L Rev 1855, 1867 (1997). Their approach is, however, implicitly hypothetical as opposed to descriptive as the authors focus on an assessment of the value that regulatory competition would have if the "global securities market [were] free to determine for itself—through a market-based competitive process between regimes—the amount of diversity in regimes." Id at 1883. Finally, Amir Licht has focused on the mobility of issuers and investors in an attempt to theorize the lobbying strength of stock exchanges with regulators. See generally Amir Licht, *Stock Exchange Mobility, Unilateral Recognition, and the Privatization of Securities Regulation*, 41 Va J Intl L 583 (2001) (arguing that the consolidation of global stock exchanges gave these exchanges unprecedented bargaining power vis-à-vis national security regulators). Yet Licht's study neither discusses the US context nor relates the new ownership and customer dynamics it does identify to the outstanding literature on regulatory competition.

11 See Stephen J. Choi and Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S Cal L Rev 903, 937 (1998) (arguing for reforms granting issuers a choice as to laws governing securities transactions); Romano, 107 Yale L J at 2401–02 (cited in note 1) (same). See also James D. Cox, *Regulatory Duopoly in U.S. Securities Markets*, 99 Colum L Rev 1200, 1234 (1999) (questioning whether issuer choice is practicable based on skepticism that securities markets are "capable of making discrete judgments among issuers using different disclosure standards"); Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 Va L Rev 1335, 1338–39 (1999) (arguing against issuer choice reforms because they would lead to significant underdisclosure).

of securities laws. In this market, the services offered by exchanges are increasingly commoditized as exchanges transition from floor trading to electronic trading. With computers replacing human intermediaries and advances in information technology making it possible for exchanges to attract investors from around the world, fewer material differences characterize stock exchanges and the services they provide. As a result, national regulators (and legislatures) eager to protect or grow their domestic exchanges and financial centers are incentivized to provide attractive, cost-effective rules for mobile foreign issuers, and large domestic firms are increasingly positioned to free ride on subsequent regulatory change by demanding equal treatment from their local regulators.

Second, the Article demonstrates that the merging of stock exchanges across the globe is also creating a nascent "private" market for the provision of securities laws. The Article shows that by acquiring foreign competitors, stock exchanges are able to offer issuers greater choice as to where their securities will be sold, and thereby the kind of regulatory regime governing their offerings. As a result, stock exchanges are increasingly poised to operate as sellers of both domestic and foreign law. This development enhances the attractiveness of foreign venues and potentially reduces the transaction costs of switching jurisdictions. In doing so, the degree of competition between regulators is consequently heightened.

After examining these new developments, the Article assesses the forms of regulatory competition generated by the public and private markets for securities laws (together the "new markets") and compares them to the competition generated by various proposals that would permit foreign issuers and stock exchanges to access US investors without necessarily complying with US securities laws. The Article argues that, from an analytical perspective, the new markets are likely to be more competitive than any reform allowing exchanges to choose a governing legal regime. This is because even when exchanges are empowered to choose, many may not select what they consider substantively to be the best regulatory choice. Instead, some will select rules chosen by foreign affiliates in order to simplify cross-border trading and create new economies of scale. The new markets would also be more competitive than regulatory reforms that condition an exchange's ability to choose on its home-state regulator first conforming its rules to those of other countries. Such requirements would likely distort, and possibly diminish, the competition currently taking place among regulators in the new markets.

The Article also shows, however, that although microstructural advances facilitate issuer mobility, they are unlikely to create regulatory markets that are systemically purer than those created by issuer choice reforms, where issuers can select legal regimes solely on the

basis of their attractiveness and then carry these rules to the stock exchange of their choice. This is because unlike issuer choice reforms, the new markets do not decouple stock exchanges from their home-state regulators. Markets and liquidity instead remain inextricably linked. As a result, issuers in the new markets make decisions as to where to list (and thereby choices of law) in part on the basis of the liquidity of exchanges, a network good not directly related to the substantive quality of any particular securities regime. Though becoming less salient as exchange services are commoditized, persisting differences in liquidity will dampen the level of direct competition between regulators insofar as regulators of highly liquid financial centers will have to compete less to attract firms than regulators of smaller financial centers will. Nevertheless, the Article shows that the new markets may still result in regulatory outcomes comparable to issuer choice where regulators of the most liquid capital markets compete with one another.

This Article is divided into four parts. Part I discusses the dominant presumption in the literature that regulatory monopolies govern the provision of securities laws and outlines three reform proposals that have aimed to introduce competition among regulators. It demonstrates that the existing literature has failed to provide an institutional account of regulatory power in the field of securities law and that a closer examination of the way financing is accessed is required.

Part II outlines the new public markets for securities laws. It explores the key functions of exchanges, as well as the innovations in exchange organization that have helped make regulation a more salient factor in the listing decisions of firms. It also provides a public choice account as to how these underlying changes in the market for exchange services provide powerful incentives for regulators to supply attractive securities laws for firms.

Part III describes the new private market for securities laws. It first analyzes why stock exchanges have created international linkages and affiliations with foreign competitors to increase their competitiveness. It then explains how such linkages heighten regulatory competition and expand the menu of regulatory options available to issuers.

Finally, Part IV compares the competitiveness of the new markets to the competitiveness of the reform proposals introduced in Part I. It explains first how the new markets are generally more competitive than reforms that would permit stock exchanges to choose the legal regime governing firms that list on their markets, though less competitive than reforms granting issuers such choice of law. It then shows how the new markets may nonetheless result in regulatory outcomes similar to those available under issuer choice reforms and outlines new approaches for evaluating the normative implications of regulatory competition.

I. THE PRESUMPTION OF REGULATORY MONOPOLY

A. Territorial Governance of Securities Transactions

US securities law takes what many scholars consider to be a paternalistic approach to investor protection: firms wishing to buy or sell stocks to the public, or in a way that impacts the US economy, are not permitted to bargain with investors individually or to negotiate independently rules governing the quality of information they may provide investors. Instead, a mandatory set of rules applies.[12] Most notably, federal laws generally require that firms file with the government a registration statement disclosing sensitive financial information relating to their operations.[13] Issuers may also potentially have to distribute a prospectus to investors containing a portion of the registration statement before sales are allowed as well as provide periodic disclosures concerning the firm's economic activities.[14] These disclosures must be made with no material misstatements or omissions, or issuers will be subject to possible civil and criminal sanctions.

Compliance with US securities laws, as in most countries, is ensured by a "territorial" or geographically based approach to jurisdiction exemplified in the Securities Act and the Exchange Act. Under the Securities Act, all individuals seeking to sell stocks and bonds in the United States who make means of "instruments of transportation or communication in interstate commerce" must comply with the country's disclosure laws.[15] The Exchange Act meanwhile dictates that listing a security on a stock exchange located in the United States subjects an issuer of securities to US registration requirements.[16] Thus if a firm wishes to seek financing from any of the country's vast capital markets—the NYSE, Nasdaq, or the American Stock Exchange—the firm must become subject to US securities laws. The Exchange Act further holds that an issuer must generally file a registration statement

12 Romano, 107 Yale L J at 2365 (cited in note 1). Those mandatory rules may, however, have notable and important exemptions. See note 63 for a discussion of Rule 144A transactions.

13 See 15 USC § 77e (2000) (outlining § 5 of the Securities Act of 1933, the cornerstone of the regulation of primary transactions in the United States). Numerous exceptions do exist, however. See Thomas Lee Hazen, *The Law of Securities Regulation* § 4.1–4.36 at 177–294 (West 4th ed 2002).

14 Choi and Guzman, 71 S Cal L Rev at 909 (cited in note 11).

15 "Interstate commerce" is defined by the statute as implicating "trade or commerce in securities or any transportation or communication relating thereto" of one "state, territory or the District of Columbia" with another. 15 USC § 77b(a)(7). Issues deemed to be made outside the US are exempt from the statute's registration requirements. Because under the terms of the Act interstate commerce includes not only transportation "between any foreign country and any State, Territory, or the District of Columbia" but also communications via email, internet, or phone lines, virtually all sales involving US persons—as well as many foreign transactions—are covered by the Securities Act. Id.

16 15 USC § 78l(a) (2000).

if it has assets in excess of $10 million and a class of equity securities held by at least five hundred shareholders worldwide (of whom at least three hundred are US investors).[17]

By attaching to both interstate trading activities and US-based intermediaries facilitating investment, federal securities laws provide deep geographic coverage touching virtually all "transactions that occur within its borders, or that have substantial effects within its territory."[18] Issuers and investors wishing to sell stocks and bonds in the United States are unavoidably bound by US securities laws unless exempted by regulators. And in some limited instances, territorially based securities laws may even have an extraterritorial reach where foreign transactions touch or have a connection to the United States.[19]

B. Choice-of-Law Reforms and Pure Regulatory Markets

Though the broad reach of US securities laws was designed to ensure the protection of US investors from fraudulent and abusive practices, the territorial basis of US securities law has been criticized extensively in the literature.[20] If one views regulation as the price a national regulator charges issuers in order to sell their securities in their home market, regulators, as the sole sellers of law, have monopoly power over the price they charge firms.[21] Critics consequently argue that federal regulators may not have much incentive to offer optimal regulation or

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17 See 15 USC § 78l. Notably, however, under Rule 12g3-2(b), such foreign issuers can enjoy an exemption from registration under this provision where a foreign listing is maintained and the US trading volume of its securities is no greater than 20 percent of the security's worldwide trading volume. See 17 CFR 240.12g3-2(b)(1)–(5). See also Larry D. Soderquist, *Understanding the Securities Laws* § 9.3 at 9-3 (PLI 2004).

18 Frederick Tung, *From Monopolists to Markets?: A Political Economy of Issuer Choices in International Securities Regulation*, 2002 Wis L Rev 1363, 1371. Relief from registration is available only to issuers that have chosen not to use exchanges to sell securities. See 17 CFR § 240.12g3-2 (2007). See also James D. Cox, Robert W. Hillman, and Donald C. Langevoort, *Securities Regulation: Cases and Materials* 552 (Aspen 5th ed 2006).

19 This is particularly the case in the United States under § 5 of the Securities Act and Rule 10b-5 of the Exchange Act. See Choi and Guzman, 71 S Cal L Rev at 909 (cited in note 11) (discussing the expansive extraterritorial reach of the Securities Act over any offerings that have a connection, no matter how remote, to the United States).

20 See generally Romano, 107 Yale L J at 2362–63 (cited in note 1) (noting that US investors are often harmed by the expansion of US securities jurisdiction because foreign firms often exclude them from takeover offers in order to avoid the application of US law); Choi and Guzman, 71 S Cal L Rev at 918 (cited in note 11) (maintaining that the strict territorial approach to jurisdiction is flawed because it binds together two separate aspects of value for investors—the capital and regulatory regimes of the country).

21 See Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 Theor Inq in L 387, 390–96 (2001) (asserting that a market for regulatory regimes is superior to a monopolist regulator or "regulatory cartel" of internationally harmonized regimes). See also Tung, 2002 Wis L Rev at 1379 (cited in note 18); Joel P. Trachtman, *Regulatory Competition and Regulatory Jurisdiction*, 3 J Intl Econ L 331, 334 (2000).

to engage in regulatory experimentation.[22] Instead, costly regulations can be imposed on firms by the government, often with little regard for efficiency or the preferences of investors. Furthermore, in some instances national regulators may be free to benefit themselves and favored constituents—through the form of higher registration fees, regulatory power, or intermeddling in foreign transactions—with few if any consequences.[23] There are, in short, few mechanisms for imposing discipline or accountability.

Several leading commentators have consequently argued that capital markets be at least partially decoupled from their respective national regulatory regimes in order to break the prevailing regulatory control. Three basic approaches have been advanced in the literature (which I will collectively refer to as "choice-of-law" reforms).[24] Under the first approach, described with minor variances in different articles as "issuer choice" and "portable reciprocity," Stephen Choi, Andrew Guzman, and Roberto Romano argue that issuers "should be allowed to freely select the regime of securities regulation that will govern it, and that all nations would commit to respecting each firm's particular choice of securities law."[25] Thus under this approach, an Austrian company could list in the United States so long as it complied with the securities law of either Austria, the United States, or a third party country.[26]

Another approach—which, though considered only in passing by choice-of-law advocates, has taken on other similar guises in the extensive literature on exchange self-regulation[27]—is the prospect of ex-

22 Tung, 2002 Wis L Rev at 1382 (cited in note 18) ("Under regulatory monopoly, regulators are too easily tempted to pursue their own bureaucratic aggrandizement without regard for the public interest.").

23 See id at 1383.

24 Although these reforms are the dominant models conceived of for liberalizing capital markets, it is worth noting that other reforms recently have been offered with regards to liberalizing the access of foreign broker-dealers to US investors. See, for example, SEC, *Exemption of Certain Foreign Brokers or Dealers* *13–14 (June 27, 2008), online at http://www.sec.gov/rules/proposed/2008/34-58047.pdf (visited Aug 29, 2008). Such reforms, if adopted, would likely have dramatic implications for US investors and for investor protection concerns. However, insofar as these regulations are limited to access by foreign brokers and dealers, they do little to enhance arbitrage opportunities for issuers or force lawmakers to internalize the costs of regulatory decisionmaking beyond the broker-dealer context.

25 Id at 1366. For a summary of issuer choice proposals, see id at 1379–86.

26 Some authors, including Andrew Guzman, have suggested that such options be available only for countries with comparable home-state regulations. See Guzman, 71 S Cal L Rev at 921 (cited in note 11) (explaining that "portable reciprocity allows issuers to choose any of the regimes of *participating countries* regardless of where the securities are issued") (emphasis added).

27 Perhaps the most outspoken proponent of exchange self-regulation, in one sense the exponent of exchange choice, is Paul Mahoney, who has argued for exchange self-regulation because of the "strong incentives to adopt rules that benefit investors." Paul Mahoney, *The Exchange As Regulator*, 83 Va L Rev 1453, 1457 (1997).

change-based choice of law.[28] This system would permit exchanges, instead of issuers, to choose the legal regime governing the transactions of firms that choose to do business on them.[29] Scholars have, however, ultimately found this approach lacking. Though an "exchange-based approach would likely lead to a diversity of regulatory regimes with many of the benefits of portable reciprocity," such a system would not be able to succeed unless exchanges could compete across national borders—which at the time reform advocates viewed as unlikely.[30] Furthermore, transactions would have to be structured to take place on a particular exchange in order to take advantage of the exchange's rules, adding considerable transactions costs.[31] If, however, these barriers could be overcome or minimized—a development that, as demonstrated below, has now occurred—choice-of-law advocates suggest that the resulting regime would begin "to resemble portable reciprocity in the sense that any issuer can trade in any country and sell to any investor, regardless of nationality."[32]

Finally, under the recently proposed approach of "substituted compliance,"[33] foreign stock exchanges and broker-dealers could apply for exemption from SEC registration requirements.[34] Under this thoughtful approach forwarded by Ethiopis Tafara and currently under negotiation with a variety of authorities in Australia, Canada, and the European Union, foreign stock exchanges would be permitted to continue to operate under their home-state rules if their domestic regula-

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28 See Romano, 107 Yale L J at 2399–2401 (cited in note 1) (noting that although regulation by exchanges can solve the free-rider problem and save transaction costs, this type of regulation poses significant enforcement problems); Choi and Guzman, 71 S Cal L Rev at 945–47 (cited in note 11) (explaining that although exchange-based regulation provides the benefits of regulatory competition, these benefits are offset by many factors, including uncertainty and the difficulty of enforcement).

29 See Choi and Guzman, 71 S Cal L Rev at 945 (cited in note 11).

30 See id. See also Romano, 107 Yale L J at 2399 (cited in note 1).

31 See Choi and Guzman, 71 S Cal L Rev at 946–47 (cited in note 11). See also Romano, 107 Yale L J at 2399 (cited in note 1).

32 Choi and Guzman, 71 S Cal L Rev at 946 (cited in note 11). See also Romano, 107 Yale L J at 2399 (cited in note 1).

33 Increasingly, this term is referred to in more generic terms as "mutual recognition," especially by the regulatory community, insofar as it is more politically palatable to those concerned with regulatory arbitrage. See John C. Coffee, Jr., *SEC Diplomacy*, Natl L J 13 (June 16, 2008). Because, however, the initiative's requirement of a comparability assessment is somewhat inconsistent with the usual connotation of mutual recognition in the academic literature as not being conditional, this Article will continue to use the original appellation of "substituted compliance" in order to more precisely map its theoretical implications.

34 Ethiopis Tafara and Robert J. Peterson, *A Blueprint for Cross-border Access to U.S. Investors: A New International Framework*, 48 Harv Intl L J 31, 32 (2007) (arguing that their proposal "should greatly reduce the transaction costs investors currently pay when investing overseas, and allow the current situation of overlapping and duplicative registration and oversight requirements for certain stock exchanges and broker-dealers to end").

tions were deemed by the SEC to be substantially in compliance with US federal securities laws.[35] Thus upon qualification, exchanges would be permitted to direct their selling efforts to US investors without complying with US regulations.[36] A participating exchange in Germany, say the Frankfurt Stock Exchange, could thus place trading screens on the NYSE for US investors to purchase the shares of companies traded in Germany, all without registering with the SEC the securities traded or the exchange itself. As a result, substituted compliance would end overlapping and duplicative registration and oversight requirements for certain stock exchanges and broker-dealers. It would also, as a practical matter, potentially allow foreign private issuers (of any country) to list in Germany, comply with Germany's regulations, and still access US investors without complying with US laws.[37]

A shared objective of each of the aforementioned proposals is the creation of a regulatory market in which legal regimes of participating countries are integrated through some form of mutual recognition. In doing so, observers argue, regulators will be incentivized to devise regulation that, while continuing to protect investors, is innovative and efficient.[38] Those regulators that impose burdensome regulatory requirements with few benefits for shareholders may lose listings

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35 Substituted compliance would thus in theory comprise a four-step process. First, a foreign exchange would petition the SEC for registration. Second, the SEC and the foreign securities regulator that has primary responsibility for overseeing the petitioning exchange would undertake a comparability assessment. Because few jurisdictions would be comparable, this step would then likely include discussions of whether regulatory adjustments may be needed to bring the different regulatory systems into harmony. Third, the petitioning exchange would agree to service of process in the United States. Thus, substituted exchanges could effectively choose whether to operate under their own host-state laws or those of the United States. Finally, the SEC would give the public notice of the petition and seek public comment in support of or in opposition to the exemption. For a summary of this process, see id at 58–59.

36 Id at 32.

37 See Howell E. Jackson, Andreas M. Fleckner, and Mark Gurevich, *Foreign Trading Screens in the United States* *1 (Harvard Law School Discussion Paper No 549, June 2006) (noting that trading screens allow investors to trade on an exchange without being physically present at the exchange or even in the same jurisdiction as the exchange). In this way, substituted compliance would function similarly to the Multi-Jurisdictional Disclosure System (MJDS). The MJDS permits Canadian issuers to sell securities in the United States using Canadian prospectuses and US issuers to sell securities in Canada using US prospectuses. See Stephen J. Nelson, *U.S.-Canadian Mutual Recognition*, Traders Mag (June 5, 2008), online at http://www.tradersmagazine.com/news/101133-1.html (visited Aug 29, 2008). It also permits Canadian issuers to provide annual and semiannual disclosure to US investors using Canadian forms, rather than Forms 10-K, 10-Q, and 8-K that are usually required of US firms. Id. However, substituted compliance would likely go a step further. First, no registration would be required by issuers whose shares are traded on foreign exchanges. Furthermore, substituted compliance would likely allow some kinds of securities to be traded crossborder that the MJDS would not permit. It also, unlike the MJDS, applies to foreign broker-dealers, thereby liberalizing their access to US investors, though it would impose duties on countries to participate in crossborder enforcement initiatives.

38 See Choi and Guzman, 71 S Cal L Rev at 923 (cited in note 11).

insofar as firms will opt for more attractive rules available in other jurisdictions.[39] On the other hand, those regulators that provide superior legislation responsive to the needs of issuers will attract transactions and, with them, revenues tied to the transactions.[40]

Though novel in the field of securities law, the legal integration of markets comprises an application of corporate law's "internal affairs doctrine"—a longstanding set of choice-of-law rules that enables regulatory competition in the corporate chartering process.[41] Under this doctrine, no substantive rules apply mandatorily to a firm's organizational regime. Instead, a firm may incorporate under the corporation law of any state. The chosen corporation law will then govern the firm's internal affairs—regardless of the location of the firm's headquarters, assets, or personnel—and the firm's choice must be respected in other states. Thus according to this doctrine, a firm headquartered in Texas can incorporate in Delaware and operate freely in Tennessee.

Supporters of regulatory competition argue that this classic approach has proven successful at constraining what was rampant discrimination by states against one another's firms.[42] Mutual recognition facilitated the creation of a common market for corporate law.[43] Firms no longer had to incorporate in a state in order to do business there. If a state wanted to attract charters—and with it lucrative incorporation fees and taxes—it would have to offer attractive corporate laws.[44] These pressures incentivized many state legislatures around the country to improve the chartering process.[45] Whether the classic approach was successful, however, remains unclear.

Scholars advocating choice of law consequently argue that similar disciplining effects can be realized in the field of securities law.[46] By allowing foreign governments to compete with domestic governments in the provision of securities laws, governments seeking the registra-

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39 See id.

40 Id.

41 See Romano, 107 Yale L J at 2363 (cited in note 1).

42 Id at 2383. For much of the second half of the nineteenth century, states had imposed a variety of requirements both tying corporations to state boundaries and extracting high rents and taxes from out-of-state firms. As a result, however, firms were increasingly impeded from engaging in cross-border activities, in effect slowing the pace of industrialization. The internal affairs doctrine largely removed such barriers. See Larry E. Ribstein and Erin Ann O'Hara, *Corporations and the Market for Law*, 2008 U Ill L Rev 661, 661.

43 Tung, 2002 Wis L Rev at 1390 (cited in note 18).

44 Id.

45 See Mark J. Roe, *Delaware's Competition*, 117 Harv L Rev 588, 645 (2003). But see Marcel Kahan and Ehud Kamar, *The Myth of State Competition in Corporate Law*, 55 Stan L Rev 679, 686 (2002) (arguing that Delaware nearly stands alone in its legislative and judicial efforts to attract incorporations).

46 See Romano, 107 Yale L J at 2365 (cited in note 1).

tion fees and taxes that accompany securities transactions will be incentivized to promulgate attractive laws.[47] This would occur either, as some have argued, through a segmentation of the market in which countries catered to specific kinds of issuers or through a homogenization of securities laws in which the best regimes would survive.[48] In both cases, competitive forces would ensure that only the most attractive regulatory regimes would survive.[49] This situation would by definition depart drastically from the status quo of regulatory price-fixing.[50] In this new regulatory regime, if a state failed to provide efficient rules, a firm could choose more efficient and transaction-friendly rules offered in another jurisdiction.

C. The False Dichotomy of Mandatory Jurisdiction and Issuer Choice

Academic criticism of choice of law has focused on the numerous assumptions underlying such reform, among the most important that (1) perfect information is available respecting the public goods on offer in all jurisdictions;[51] and (2) competitive pressures will compel managers of firms to choose laws on the basis of regulatory efficiency and the best interests of the firm, and not self-promotion.[52] These assumptions underlie the now thoroughly debated question as to whether competition will lead, as most issuer choice advocates suggest, to a "race to the top," where the most efficient laws will emerge, or a "race to the bottom" in which regulatory standards are effectively dismantled.[53]

Yet for all of the rigorous and sustained debate surrounding the issue, few scholars have focused on the longstanding factual assumption

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47 Choi and Guzman, 71 S Cal L Rev at 923–24 (cited in note 11).

48 Choi and Guzman, for one, predict segmentation, as does Coffee. See Choi and Guzman, 65 Fordham L Rev at 1881 (cited in note 10) (arguing that "competition among countries to tailor their regimes to specific types of issuers ... promot[es] the likelihood of a separating equilibrium outcome"); Coffee, 102 Colum L Rev at 1767 (cited in note 10) (arguing that bonding mechanisms hold more predictive power than a market segmentation approach because the barriers that once segmented markets have largely eroded, thus reducing the need for issuers to enter distant markets to access trapped pools of liquidity). Romano also predicts regulatory homogenization. See Romano, 107 Yale L J at 2425 n 216 (cited in note 1).

49 See Choi and Guzman, 71 S Cal L Rev at 923 (cited in note 11). See also Romano, 107 Yale L J at 2393 (cited in note 1).

50 See William W. Bratton and Joseph A. McCahery, *The New Economics of Jurisdictional Competition: Devolutionary Federalism in a Second-best World*, 86 Georgetown L J 201, 211 (1997).

51 See, for example, Cox, 99 Colum L Rev 1234 (cited in note 11) (questioning whether differences in regulatory regimes can be effectively priced by investors).

52 See, for example, Fox, 85 Va L Rev at 1410 (cited in note 11) (doubting whether managers of firms are incentivized to choose optimal regulation).

53 Some authors, like Frederick Tung, additionally question whether, given the incentives of political actors, issuer choice is ever likely to come about. See Tung, 2002 Wis L Rev at 1368 (cited in note 18). This intervention avoids, however, larger normative claims.

that in fact a regulatory monopoly exists in the field of securities law.[54] Instead, both critics and supporters of securities reform have generally elided the issue of regulatory monopolies and instead focused on the outcome and direction of *hypothetical* regulatory markets (that is, to the top or bottom).[55]

This is in some ways unsurprising. Classic economic theory understands monopolies as arising wherever there is only one "seller" of a good.[56] And in the case of the provision of securities laws, this definition at least ostensibly seems to fit: in virtually all countries, regulators functionally comprise "sellers" of a public good, law, which permits firms to raise money.[57] Firms, in turn, "buy" law through fees paid to the government and compliance with rules purchased.[58] But because the state comprises the only seller of law—and no option exists but to comply with federal law if one wishes to sell securities in the United States—the federal government acts as a monopolist, and firms are captive to the government's dictates. The very exercise of prescriptive jurisdiction is instinctively monopolistic as mandatory rules empower the state to set the "price" at which rules are provided.[59]

This notion of monopoly power is, however, an inadequate one insofar as it overlooks the contingent nature of regulatory power. Monopolies arise only where producers control the sale of a good. This means that in private markets, where companies are the suppliers of goods, monopoly power arises in concert with the uniqueness or rarity of a good: where a good is unique, or only one firm possesses the productive capacity or legal right to produce a good, that firm has significant market power. On the other hand, if a good is a commodity and offered by a variety of firms, no single firm in fact wields market power.

Ultimately, economic theory teaches that the regulatory context is no different.[60] States, like firms, command (domestic) resources. These resources can be tangible goods such as capital or machinery, or they

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54 See note 10 for a discussion of scholars who have studied regulatory competition and the limitations to their approaches.

55 Joel Trachtman has addressed this issue perhaps most directly and has perceptively noted that calls for regulatory competition "are really arguments for *increased* regulatory competition by virtue of adjustment of choice of law rules." Trachtman, 3 J Intl Econ L at 334 (cited in note 21). His work, though not providing an institutional account of regulatory competition, notes that there are increasing avenues available for "technical mobility" although such mobility does not always result in jurisdictional mobility. See id at 336–37.

56 See Tung, 2002 Wis L Rev at 1394 (cited in note 18).

57 Id at 1367.

58 Id.

59 Id. See also Trachtman, 3 J Intl Econ L at 334 (cited in note 21).

60 See generally Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J Pol Econ 416 (1956) (concluding that the revenue-expenditure patterns of local government are shaped by the preferences of mobile consumer-voters who shop between various jurisdictions).

can be intangible goods, such as the ability to endow firms with good reputations (such as for good corporate governance) or branding (as "honest"). Moreover, the market power that the state enjoys over these resources—that is, the ability for it to charge outsiders for use or access—will be dependent on the availability of that resource in other jurisdictions and the mobility of market participants. If a regulator exercises jurisdiction over a resource that is rare in the world, or inaccessible or costly to attain in other jurisdictions, it wields significant power in terms of the concessions it may extract from firms seeking that resource. Where, conversely, a resource is common and can be accessed with relatively few transaction costs in other jurisdictions by mobile consumers, the regulator has much less market power.

Consider, for example, a situation where State A imposes a $10 tax on a particular medication and mandates that all stores apply the charge. Suppose that State B also provides the drug, but imposes only a $5 surcharge. If State B is easily accessible to State A, a patient in State A can drive to State B and purchase the medication there. Thus in that instance, though State B may exercise a jurisdictional monopoly as concerning its domestic medicines, in actuality it wields little market power. If, on the other hand, the medicine is unique, and only available in State A stores, State A wields a powerful regulatory monopoly over that drug.

This simple observation is important because, as mentioned above, the literature regularly posits monopoly as concomitant to jurisdiction: wherever a state imposes jurisdiction, a monopoly arises.[61] This presumed relationship between jurisdiction and monopoly lends to the natural conclusion—reflected in the overall scholarship in the field—that effectively only reverse jurisdiction, or choice-of-law rules, can break regulatory monopolies and create a market for law.

Yet as the above example demonstrates, it is not the exercise of authority that gives a state monopoly power, at least in relation to the activities of firms. It is instead the absence of economically viable alternatives to jurisdictional resources that gives regulators "pricing" power.[62] Thus critical for an understanding of markets and monopolies for law are the resources to which jurisdiction attaches. If the resource to which law attaches is unique to a country or firms are unable to move to other jurisdictions to access that resource, the relevant state authorities will wield monopoly power. On the other hand, where the same resource can be accessed at the same price with no (or few)

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61 See Trachtman, 3 J Intl Econ L at 337 (cited in note 21).

62 See id at 334 (noting that one must examine the "geographic and product scope of the monopoly" to determine the contestability of regulatory markets).

transaction costs, the prerequisites for regulatory competition may exist. Thus in the above example, if sales of the medication are key to the success of pharmacies, State A may decide to lower its taxes to $5, thereby making its product competitive in price to the medication sold in State B. However, if State B values the sale of the medication, it may, in turn, respond by lowering its taxes, leading to a "race" between regulators to provide the lowest cost.

Returning then to the field of securities regulation, the example above suggests that insofar as corporate and securities law involve different critical resources, monopoly power arising in one domain implicating firms does not necessarily translate into monopoly power in another. Different resources inform different relationships between buyers (firms) and sellers (regulators). For example, the resources protected by securities laws today differ from the resources protected by corporate law at the time at which competition was introduced into the corporate law market. In the 1870s, corporate law generally defined the ways in which shareholders structured relationships with one another and centralized capital in one organizational form to access markets. Today's securities laws (as well as some of today's corporate laws), in contrast, relate to another resource—capital markets. As a result, the two regulatory fields potentially involve different buyer-seller dynamics. State regulators had considerable market power over their early consumer markets. As firms became larger and saturated their local markets, expansion into new consumer markets became necessary for some firms in order to preserve profitability. Capital markets do not, however, always create the same economic necessity. If, for example, the United States imposes onerous regulatory costs on firms seeking to access its capital markets, a firm can potentially raise capital elsewhere provided that other alternative capital markets are available. Indeed, this will especially be the case for foreign issuers who, due to their limited economic presence in the United States, are especially mobile and are shopping for venues in which to cross-list their securities.

Because securities and corporate regulation are not necessarily always analogous to one another, a deeper institutional account is required in order to determine the market power of regulators and the existence of regulatory competition. The following sections consequently turn to stock exchanges to undertake such an evaluation. Though stock exchanges are not the sole source of finance for firms, stock exchanges in many ways lie at the heart of a securities regulator's power, particularly in the United States. The trading of securities, one of the events triggering jurisdiction under the Securities Act, has traditionally been organized on centralized exchanges. Exchanges are also instrumentali-

ties of SEC oversight and the primary means through which the SEC exerts its influence over issuers.[63]

A security regulator's power is, as a result, closely tied to the competitiveness of its home exchanges and their capital markets. Where a firm can find credible foreign exchange alternatives, and where mobility costs are low, it will be able to access markets governed by different laws, thus effectively providing increased choice of law.[64] This enhanced choice forces countries to internalize the costs of their regulatory decisions since unattractive laws will incentivize firms to choose some financial centers over others. It also, by implication, sets the stage for regulatory competition—a dynamic with implications for not only foreign issuers, but also large and less mobile domestic companies.

II. STOCK EXCHANGES AND THE NEW PUBLIC MARKET FOR SECURITIES LAWS

Despite the phenomenal growth in international securities transactions, the academic community is only beginning to examine issuer choice in capital markets. This is because, at least traditionally, firms have had relatively few options as to where to list their securities. Small companies on the one hand were largely relegated to their home markets, in part because of greater visibility locally.[65] And large companies were forced to list or cross-list on a handful of big exchanges like those

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63 See Robert B. Thompson, *Corporate Federalism in the Administrative State: The SEC's Discretion to Move the Line between the State and Federal Realms of Corporate Governance*, 82 Notre Dame L Rev 1143, 1144–45, 1164 (2007) (noting that the "SEC was able to accomplish indirectly via listing standards what it had not been able to do directly by rule" and that listing standards have become the primary vehicle by which the SEC skirts the federalism-based limits on its authority and shapes corporate governance). This is not to say, however, that exchanges are the only instruments of corporate finance and that other innovations do not have a significant impact on a regulator's provision of securities laws. Certainly, a company need not necessarily sell its securities on an exchange in order to raise capital. A company can, for instance, sell securities like debt "over-the-counter" (OTC), "off-exchange," or enter into loans with banks. Moreover, not all companies sell their securities to the public; instead, many choose to sell securities on 144A "private" markets on which only institutional investors participate. Yet these alternative means of financing are not as directly tied to the strength of US securities regulators as stock exchanges and do not initiate *extrajurisdictional* regulatory competition. OTC securities are only subject to the stringent reporting requirements of the 1934 Exchange Act or the liability regimes of the 1933 Securities Act if they have significant assets and a stable of US investors. And bank loans and private placements escape these rules altogether. Thus if a foreign firm chooses to undertake one of these means of financing in the United States, US securities regulators will not necessarily enjoy enhanced regulatory power, even though the volume of transactions in the United States may increase. Instead, these alternative means of financing contribute to what can be viewed as an *intrajurisdictional* competition between the more liquid, public exchanges and illiquid, lightly regulated securities.

64 This assumes, of course, that states do not modify their rules of regulatory jurisdiction to attach to domestic persons or institutions. See Trachtman, 3 J Intl Econ L at 336 (cited in note 21).

65 Coffee, 102 Colum L Rev at 1776–77 (cited in note 10).

in the United States since only a select few exchanges were large enough to offer the kind of financing those companies sought.[66]

In the last decade, however, capital markets around the world have undergone rapid and dramatic change. New and revolutionary advances in exchange microstructure and technology have dramatically increased the range of credible listing options available to firms. No longer is it necessary that foreign firms and startups list in the United States—or for that matter on any particular foreign exchange—as many of the traditional products offered by exchanges have been commoditized. These developments have created new incentives for jurisdictions to compete and to provide exchange regulations that would attract such issuers. This new regulatory competition, however, is characterized by very different dynamics than the direct regulatory competition envisioned in the literature analyzing hypothetical issuer choice proposals. It thus implies very different costs and, as will be seen later, varying efficiency implications.

A. The Critical Functions of Stock Exchanges

1. Stock exchanges as facilitators of capital.

Exchanges have traditionally provided two basic services to firms seeking to list securities. First, they provide a marketplace where securities can be bought and sold after the securities are initially offered to the public.[67] They do so by offering firms the opportunity to list their shares on trading floors or on an electronic trading system operated by the exchange. This listing service provides access to all investors and financial intermediaries operating on the trading floor or connected to the exchange's network.[68] Investors can purchase initial public offerings by issuers through investment, and after the IPO they can subsequently buy and sell the firm's securities on the secondary market operated by the exchange. In return for these services, exchanges charge commissions for listing and trading securities, as well as for access to the trading floor or system.[69]

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66 Id (giving examples of Israeli companies choosing the Nasdaq for their IPO over their home market in order raise capital from a small group of US institutional investors).

67 Andreas M. Fleckner, *Stock Exchanges at the Crossroads*, 74 Fordham L Rev 2541, 2546 (2006).

68 Id.

69 The range of services offered by exchanges is growing. A few exchanges may also provide for the clearing and settlement, or "paperwork," accompanying the sale of securities. They may also derive additional revenue from providing quote and trade data concerning a security to other venues. See id at 2547. See also Ruben Lee, *The Future of Securities Exchanges*, in Robert E. Litan and Richard Herring, eds, *Brookings-Wharton Papers on Financial Services 2002* 1, 2–3 (Brookings 2002) (arguing

In providing these services, exchanges offer liquidity, that is, convertibility of a security into cash (and vice versa).[70] Liquidity is highly valued by listing firms because investors are willing to pay a premium for securities listed on liquid markets. In liquid markets where many investors participate in the buying and selling of a security, the price of a security is more likely to be accurate and less volatile.[71] Buyers and sellers must compete with one another in order to provide the most attractive offer for a security, lowering the spread between bid and ask orders.[72] Liquidity furthermore helps ensure investors of immediacy, that is, the ability to transact (and exit) their investment promptly.[73] In thin markets comprised of few investors, orders to buy or sell are potentially not executed due to the absence of counteroffers, or may be executed slowly. This inability to exit an investment quickly drives up the risk associated with investment, thereby driving down the price of the security on the market.[74] Companies that choose to list securities on an illiquid market consequently risk a poor price for their shares and possibly the need to issue more securities in order to finance ventures and operations.[75] In contrast, issuers with shares traded on liquid markets are best positioned to charge a premium for their shares. Investors are assured of the ability to dispose of their shares quickly, implying in effect that the transaction costs related to holding such shares are low.[76]

2. Stock exchanges as facilitators of law.

Stock exchanges are not only venues for trading; they also help regulate the markets they organize.[77] The nature and extent of oversight will differ depending on the laws of the country in which an exchange is located. In the United States, exchanges participate in a two-tiered

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that dominant exchanges will enjoy revenue from the sale of trade data that may come to even eclipse transaction fees).

70 Fleckner, 74 Fordham L Rev at 2546 (cited in note 67) (stating that one of the critical functions of a stock exchange is to "provide liquidity").

71 Jonathan Macey and Hideki Kanda, *The Stock Exchange as a Firm: The Emergence of Close Substitutes for the New York and Tokyo Stock Exchanges*, 75 Cornell L Rev 1007, 1012 (1990) (explaining that liquidity requires that the price of the stock be "rationally related to the market's existing estimation of the firm's earnings prospects" whereas in an illiquid market, the price can be biased downwards by artificial conditions, such as the lack of a willing buyer).

72 Id (stating that competition in a liquid market functions as a price-setting mechanism that performs the valuation process and therefore reduces information costs for market participants).

73 Id.

74 In economic terms, this discount is the "illiquidity premium" impounded into the price of a security. Zvi Bodie, Alex Kane, and Alan J. Marcus, *Investments* 280 (McGraw-Hill 5th ed 2002).

75 The only way increased issuances will be avoidable is when the expected return on the illiquid asset is higher. Id.

76 Macey and Kanda, 75 Cornell L Rev at 1013 (cited in note 71).

77 Fleckner, 74 Fordham L Rev at 2547 (cited in note 67).

form of governmental regulation.[78] On the one hand, under the Exchange Act, stock exchanges are required to engage in "self regulation," that is, to establish rules that regulate disclosure, brokers, dealers, and market participants.[79]

At the same time, however, US exchanges remain subject to regulation by federal authorities insofar as the Exchange Act also requires exchanges to register with the SEC[80] and adopt listing rules that make certain that federal laws like mandatory disclosure are complied with, and to ensure that issuers have proper corporate governance.[81] Exchanges are consequently expected to monitor their markets vigorously and to take appropriate disciplinary action against derelict members or issuers.[82] If an exchange fails to perform its duties, § 19 of the Exchange Act empowers the SEC to suspend or withdraw the registration of an exchange.[83]

SEC oversight of exchanges reflects the long-held view of policymakers that exchanges have considerable incentives to under-regulate issuers, a concern that has become all the more heightened as exchanges transition from member-owned organizations to for-profit and publicly listed companies.[84] From an economic standpoint, regulation imposes costs on firms listing their securities on exchanges that generate little, if any, direct income in the short term.[85] Issuers must hire lawyers and auditors alongside investment bankers and their counsel to examine the issuer's business operations and confirm that all disclosures made in disclosure documents are accurate.[86] Comprehensive legal standards also expose firms to legal risk insofar as even inadvertent noncompliance may expose a firm to government sanctions

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78 Id at 2581.

79 Id (noting that the stock exchange's constituents, such as executives of member firms, specialists, floor brokers, lessor members, listed companies, institutional investors, and individual investors, establish its rules and regulate it accordingly).

80 15 USC § 78e.

81 15 USC § 78f(b)(1).

82 Id.

83 15 USC § 78s(h)(1).

84 Jonathan R. Macey and Maureen O'Hara, *From Markets to Venues: Securities Regulation in an Evolving World*, 58 Stan L Rev 563, 599 (2005). See also Fleckner, 74 Fordham L Rev at 2593 (cited in note 67) (noting that with demutualization "each expense will be scrutinized in terms of whether it will help increase profits" and that this scrutiny may include regulatory expenses); Robert E. Prentice, *The Inevitability of a Strong SEC*, 91 Cornell L Rev 775, 795–97 (2006) (arguing that reputational restraints on exchanges will not provide adequate incentives for exchanges to police their members). Still, the issue as to whether such oversight is practical remains contested. A.C. Pritchard has eloquently argued that antifraud enforcement should remain under the control of exchanges, as interest groups operating on exchanges have high incentives to enforce vigorously prohibitions against fraud on the market. See A.C. Pritchard, *Markets as Monitors: A Proposal to Replace Class Actions with Exchanges as Securities Fraud Enforcers*, 85 Va L Rev 925, 929 (1999).

85 Fleckner, 74 Fordham L Rev at 2593 (cited in note 67).

86 Id.

or private suits.[87] Even the operational efficiency of issuers may suffer as the issuer's management must participate in the disclosure process and ensure accurate documentation of their company's business and financial position. Thus to the extent that exchanges profit from the number of listings they attract, exchanges have an interest in providing less stringent listing requirements for firms—all things being equal, lower regulatory costs will prove attractive to cost-conscious, profit-maximizing firms.[88] Furthermore, where regulatory standards are high, some firms will not qualify to trade on an exchange and thus will list elsewhere. In such circumstances, stringently regulated exchanges will lose market share to lighter-touch competitors.

Regulation may, on the other hand, ultimately provide tangible benefits to issuers in terms of the valuation of a security. Some commentators have long argued that adherence to strong legal regimes allows firms to signal to investors good corporate governance as well as management's respect for minority investor rights.[89] Thus by opting for a higher-disclosure regime, firms may be able to enhance their share price and raise additional equity at a lower cost.[90] Yet even where disclosure provides strong signals of corporate governance, for regulation to be attractive it would have to be, at least from the standpoint of a firm, "efficient." That is, for every $1 spent on compliance, a firm should gain at least $1.01 in value, normally reflected in the price of the security.[91] If, on the other hand, the costs of regulation outweigh the benefits a firm receives by making credible corporate governance commitments,

87 Coffee, 102 Colum L Rev at 1794–96 (cited in note 10).

88 See Mahoney, 83 Va L Rev at 1462–63 (cited in note 27).

89 This view constitutes the so-called "bonding hypothesis" of securities regulation. See Coffee, 102 Colum L Rev at 1780–81 (cited in note 10). See also Rafael la Porta, et al, *Legal Determinants of External Finance*, 52 J Fin 1131, 1136–44 (1997). Indeed, securities markets may not be able to expand to their full potential in the absence of a mandatory legal regime protecting minority shareholder rights. John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 Yale L J 1, 64 (2001) (arguing that this view explains why strong securities regulation is enacted after markets have become established). Nevertheless, even in the absence of highly developed law, equity markets can, and have, still developed. There are a variety of institutional accounts as to why this is the case. See, for example, Katharina Pistor and Chenggang Xu, *Governing Stock Markets in Transition Economies: Lessons from China*, 7 Am L & Econ Rev 184, 206 (2005) (arguing that administrative governance can substitute for formal legal governance). Usually, however, securities markets ultimately encounter shocks that result in a loss of investor confidence that legal institutions help buffer against. Coffee, 111 Yale L J at 65, 69–71 (using recent transitional economies in Europe and Asia as examples).

90 Coffee, 102 Colum L Rev at 1763 (cited in note 10) (arguing that this benefit is why European firms that can choose between various legal disclosure regimes voluntarily comply with the strictest one).

91 Presumably, investors would be willing to pay the costs of additional disclosure where the risk of fraud is decreased. In economic terms, regulation would be efficient where for every $1 spent or invested in regulation, the expected cost of fraud would be reduced by $x > \$1$ and thus appropriately priced into the value of the security.

a firm will internalize an exchange's regulations as a net cost. These costs will detract from the overall attractiveness of an exchange.[92]

3. The interplay of law and markets.

The dual nature of the services proffered by exchanges means that an exchange's competitive advantages in one functional domain may counteract its shortcomings in the other, so long as it provides more net benefits for issuers than competitor exchanges. Because both regulation and liquidity may ultimately affect the cost of capital for investors, issuers examine the total value proffered by exchanges when listing.

It deserves noting, however, that although regulatory advantages may make some exchanges more appealing than competitor exchanges with more liquidity, and vice versa, in virtually all cases the availability of at least some liquidity on an exchange is a condition precedent for public listings. Liquidity, as mentioned above, assures that an offer to sell will be matched with an offer to buy. Thus without liquidity, an investor will not be able to unload or exit his investment, or one investor may be able to command a premium for trading due to the absence of widespread participation or a slow speed of execution. In either case, the price of a security will not reflect its true value. The availability of liquidity is thus in many ways a first-order concern for issuers.

Formal governmental regulation, in contrast, though potentially providing value for investors, always involves cost, at least from the standpoint of listing companies.[93] That is, the greater the regulatory requirements with which a company must comply, the larger its compliance costs insofar as more legal, accounting, and other advisory services are normally required.[94] Thus although regulation is an important tool for signaling credible corporate governance, and may indirectly decrease the cost of capital for firms, these advantages are often remote and theoretical. This means that, all other things being equal, the greater the regulatory standards in a given country, the less likely a firm will be to list there.

B. The Commoditization of Securities Markets

The importance in particular of liquidity in the cost calculus of issuers has at least traditionally held enormous implications for the general competitiveness of the securities trading industry, a fact frequently over-

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92 This apparently was the case with regard to at least some provisions of the Sarbanes-Oxley legislation. See Kate Litvak, *Sarbanes-Oxley and the Cross-listing Premium*, 105 Mich L Rev 1857, 1875–95 (2007).

93 See text accompanying notes 80–85.

94 See text accompanying notes 86–88.

looked in the legal literature. Liquidity until recently has been processed in a way that has provided established exchanges with vast advantages of scale that have shielded them from competition with upstart markets and foreign exchanges. This Part demonstrates, however, that the emergence of new electronic and informational technologies has dramatically lowered the barriers of entry to the business of providing exchange services, as well as enhanced the ability of young exchanges to compete with established rivals on a variety of dimensions of liquidity.

1. The historical entrenchment of stock exchanges.

a) Liquidity and incumbent effects. Historically, competition among stock exchanges has arisen among only a small set of players. One reason for the lack of broad-based competition is that securities markets for many years exhibited natural network-related barriers to entry.[95] Specifically, established exchanges enjoyed great lead time—in some instances centuries—in establishing a large network of bankers, analysts, and investors that operated their markets. These networks provided superior utility for issuers given their dramatically greater liquidity vis-à-vis smaller upstarts. These advantages thus made it difficult, if not impossible, for new exchanges to enter the market, acquire scale quickly, and compete against incumbents.[96] As a network good, liquidity disincentivized exit by market participants, and few were willing to leave large, liquid markets in order to operate on smaller ones.[97]

Exchanges also provided modest "learning benefits" that accrued with repeated use. In short, continuous participants on many exchanges enjoyed reduced costs as they became familiar with the trading operations on an exchange and the behavior of other participants. Trading required knowledge of trading rules, trading protocols, specialized jargon, and sign languages that traders used to negotiate their trades.[98] Familiarity with a floor also enabled traders to better execute block trades, as well as avoid detection where they sought to exit investments discretely.[99] At the same time, however, the learning benefits

95 See Robert B. Ahdieh, *Making Markets: Network Effects and the Role of Law in the Creation of Strong Securities Markets*, 76 S Cal L Rev 277, 280–81 (2003).

96 See id at 307–08.

97 Economists refer to this phenomenon as order flow externality. See, for example, Larry Harris, *Trading & Exchanges: Market Microstructure for Practitioners* 526 (Oxford 2003) (describing how without regulatory intervention this causes markets to consolidate).

98 Id at 143–44.

99 With experience, some traders could develop strategies that would allow them to anticipate periods when liquidity is high and trade more often and in larger sizes during such periods. They also could develop skills at reading momentum in the market and timing trades accordingly. See Puneet Handa, Robert A. Schwartz, and Ashish Tiwari, *The Economic Value of a Trading Floor: Evidence from the American Stock Exchange*, 77 J Bus 331, 332 (2004) (arguing microstructure

created switching costs that made migration to other exchanges less attractive. Defection to a new exchange not only entailed internalizing the costs associated with acquiring a new membership and trading privileges on an exchange but also losing the asset-specific knowledge and efficiencies tied to trading.

b) Floor exchanges and the problem of market entry. Alongside these market-entry and market-switching network externalities have been additional barriers to entry tied to the very way in which liquidity has been processed. Most exchanges, including the NYSE, at least traditionally operated as so-called "auction" markets. This means that investors interested in buying or selling securities placed orders with brokers on trading floors. These orders would comprise either "market orders," which required the broker to trade immediately at the best possible price, or "limit orders," which specified a maximum price if buying or a minimum price if selling.[100] From there, orders would be executed on trading floors operated by the exchange. The broker would forward the order to the trading room of his brokerage house, which then would phone the order to a clerk working on the exchange. In some instances, the clerk then would hand the order to a broker working on a floor, who then would walk the order to a post where a designated trader, "the specialist," acted as an auctioneer and, in many exchanges, a market maker for the securities.[101]

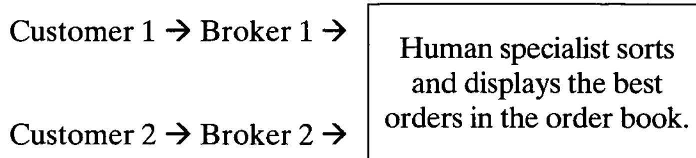
economists have not paid enough attention to the ways a trading floor contributes to additional liquidity). Traders could also better execute trades in ways that would allow them to hide informed trades. Such activities are often guesswork and may depend on established relationships with friends or allies. See Harris, *Trading & Exchanges* at 529 (cited in note 97) (noting that traders may reveal preferences or orders to reward friends or exchange favors with traders with whom they must deal).

100 Hans Stoll, *Electronic Trading in Stock Markets*, 20 J Econ Perspectives 153, 154 (2006).

101 Marshall E. Blume, Jeremy J. Siegel, and Dan Rottenberg, *Revolution on Wall Street: The Rise and Decline of the New York Stock Exchange* 41 (W.W. Norton 1993). On many call auction markets, specialists act as market makers. Id at 38. As such, specialists determine the opening price of a security at the beginning of the trading day. Id at 43. Orders arriving before the open are batched and executed at a single opening price. Id. The specialist sets the opening price depending on the number of orders in his book, his own willingness to participate, and his ability to find other traders at the opening. Id. Once trading starts, all new incoming market orders are placed into a "book" on the floor in which limit orders constitute the bid and ask prices in an auction market. See Roger D. Huang and Hans R. Stoll, *Tick Size, Bid-Ask Spreads, and Market Structure*, 36 J Fin and Quant Anal 503, 505 (2001) (presenting evidence that spreads are lower in auction markets where the limit orders are known than in dealer markets where dealers keep their limit orders secret until execution); Blume, Siegel, and Rottenberg, *Revolution on Wall Street* at 39 (cited in note 101) (describing how orders pass through the book at the NYSE). Verbal bids and offers are also made by brokers operating on the floor. Blume, Siegel, and Rottenberg, *Revolution on Wall Street* at 39 (cited in note 101). In this way, investors trade directly with other investors, ensuring a competitive market for securities.

Some floor specialists furthermore are charged with "maintaining a fair and orderly market" in the stock in which they specialize. NYSE Group, *NYSE Rules*, Rule 104.10 (2008), online at http://rules.nyse.com/N2YSE (visited Aug 29, 2008). In this capacity, they provide both immedia-

FIGURE A
TRADITIONAL FLOOR TRADING



The organization of the traditional floor exchange speaks to what at least traditionally were the high transaction costs of trading. Until the late 1970s, communications technology was relatively primitive. Financial information was disseminated slowly, usually by ticker tape, and telephonic communication was expensive.[102] These challenges made trading difficult since communication lay at the heart of the trading process. Traders must communicate with one another (and specialists) when making orders so that prospective buyers and sellers can be identified quickly. And information concerning a security (such as price) must be widely disseminated for orders to be made. Floor trading responded to these challenges by placing traders in physical proximity to one another. The physical proximity of traders around specialist posts lowered the search costs for purchasers and sellers of securities. Buyers and sellers were (literally) next to one another, allowing for the expeditious identification of counterparties.

Centralization also facilitated more accurate pricing of securities. Proximity to bidding gave traders real-time information concerning the best price for a security. Furthermore, if one trader had material, nonpublic knowledge relating to a listed firm, and then traded on that information, his behavior still would be largely observable by all participants on the trading floor. Thus in practice, the new bids or asks would signal to other investors the need to reevaluate their own positions, prompting adjustments in their own offers. Investors would be assured that any new information relating to a firm would be efficiently reflected in the price of the firm's shares in the course of trading.

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cy and price stability, two key elements of liquidity. As providers of immediacy, specialists stand ready to buy and sell where there are no offers or counteroffers for securities. Specialists are also required to transact where transaction-to-transaction price changes would be unacceptably large, such as when the book is sparse, or if large orders exert undue pressure on the market. Id. The former services are not free; as compensation, specialists sell to buyers at higher ask prices and buy from sellers at lower bid prices than what would ordinarily be the case in a thicker market. See Blume, Siegel, and Rottenberg, *Revolution on Wall Street* at 40 (cited in note 101). Meanwhile, the latter services entail obligations by specialists to buy when the market is moving up and to sell when the market is plummeting. In countering market trends, these transactions, though not profitable, help stabilize thin markets.

102 See Joel Kurtzman, *How the Markets Really Work* 36 (Crown Business 2002).

Yet, for all of the advantages floor trading provided, it did not promote competitiveness. This is because centralization, the key mechanism for price discovery and information dissemination, entailed significant fixed costs. Though trading floors lowered communication and information costs, real estate had to be purchased on the front end for a large trading facility. Then a large trading floor had to be built on which traders could collectively operate and interact. Finally, facilities had to be added for communication with linked institutions, either in the form of courier posts or phone banks.

Floor exchanges were also highly dependent upon human skill that is not easily replicable. When a client makes a limit order, a floor broker must calculate (or guess) the appropriate amount to initially bid for on the exchange on behalf of the client based on his monitoring of the day's trading. Likewise, exchange specialists must monitor limit orders and respond quickly to orders as they arrive. All along, time is critical—the longer it takes for execution of an order, the more likely the order may be cancelled or matched with another investor.[103] Due to the various emotional, intellectual, and even physical demands of the job, the supply of skilled traders has always been limited and labor costs, high.[104] Floor exchanges were thus difficult to launch as ventures. Not only did potential upstarts have to find a place to trade, but they also had to find the personnel to quickly and competently execute orders in a way comparable to better-established exchanges. As a result, there was relatively little growth in the number of venues available to trade securities until the late 1980s.[105]

2. The new world of electronic trading.

The traditional dominance of floor trading has, however, waned considerably as advances in technology have revolutionized the microstructure of exchanges. Though floor auctions continue to characterize the operations of some exchanges,[106] increasingly computers, as opposed to people, are administering virtual "books" on which limit orders are

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103 As a result, investors demand a higher liquidity premium. See Kumar Venkataraman, *Automated versus Floor Trading*, 56 J Fin 1145, 1452 (2001).

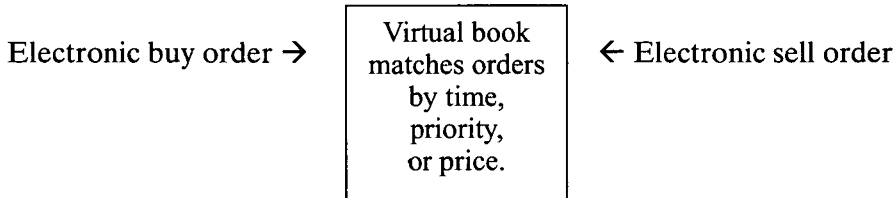
104 Helen Kirwan-Taylor, *Hard Labour*, Evening Star Mag (London) 34 (Mar 2, 2007).

105 Klaus Weber and Gerald F. Davis, *The Global Spread of Stock Exchanges, 1980–1998* *2 (William Davidson Institute Working Paper No 341, Nov 2000), online at http://www.wdi.umich.edu/files/Publications/WorkingPapers/wp341.pdf (visited Aug 29, 2008).

106 This was, until recently, particularly the case in the United States. See Robert B. Ahdieh, *Law's Signal: A Cueing Theory of Law in Market Transition*, 77 S Cal L Rev 215, 215 (2004) (observing that US exchanges, and particularly the NYSE, seemed to resist technological modernization).

executed electronically.[107] Furthermore, traders are no longer always physically present on trading floors. Instead, they are automatically connected to a trading platform (often brokers operating through a subscription service) through which they indicate their willingness to buy or sell units of a security electronically.[108] These orders are then displayed instantaneously—often via the internet—and if other investors like the price, they can place an order to trade against the displayed price.[109]

FIGURE B
ELECTRONIC TRADING



Electronic trading is incorporated into a variety of market structures around the world. The most comprehensive electronic system in the United States is run by Nasdaq, an exchange on which dealers compete in the provision of quotes for securities. If a customer's limit order is priced at or better than the market maker's current quote, it must, as in the NYSE, be displayed.[110] Competition between dealers, along with incoming customer limit orders, is envisioned as a way of keeping trading costs low and promoting price discovery.[111]

Alongside this elaborate system of trading, smaller electronic communication networks (ECNs) act as simple platforms that match bids and offers for securities.[112] When an order is executed, an ECN quote is replaced with the next best order.[113] Unlike the Nasdaq or other electronic exchanges, ECNs do not guarantee quotes.[114] Instead, bids with-

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107 Roger D. Huang, *Price Discovery by ECNs and Nasdaq Market Makers* *2 (unpublished manuscript, Mar 29, 2000), online at http://www2.owen.vanderbilt.edu/fmrc/pdf/wp2000-02.pdf (visited Aug 29, 2008).

108 Id.

109 Stoll, 20 J Econ Perspectives at 161 (cited in note 100).

110 Id at 160.

111 See Roger D. Huang, *The Quality of ECN and Nasdaq Market Maker Quotes*, 57 J Fin 1285, 1286–87 (2002) (examining whether Nasdaq market makers or alternative trading systems have higher quote quality).

112 Lawrence R. Glosten, *Is the Electronic Limit Order Book Inevitable?*, 49 J Fin 1127, 1129 (1994) (explaining how an electronic, open-limit order book works).

113 Huang, 57 J Fin at 1290 (cited in note 111) (observing that this system leads to smaller quote spreads than Nasdaq's electronic system with market makers).

114 Eric Benhamou and Thomas Serval, *On the Competition between ECN's, Stock Markets and Market Makers* *15 (University of Toulouse FMG Working Paper No 0345, Dec 1999), available online at http://ssrn.com/abstract=223872 (visited Aug 29, 2008); Eric Benhamou and Tho-

out counterparties remain unexecuted or routed to formal exchanges (and specialists) that guarantee execution.[115]

Finally, some traditional floor exchanges, including the NYSE,[116] have adopted a hybrid system of execution in which investors can choose whether to have their orders executed electronically or on the floor of the exchange.[117]

In this new world of trading, electronic markets hold important common advantages over the traditional call auction system. As seen below, all serve to undermine not only floor trading as a means of executing trades but also the incumbency effect that has shielded exchanges, especially in America, from foreign competition.

a) Geographic reach and investor mobility. Among the most important advantages afforded by electronic trading, particularly in the age of the internet, is the widespread dissemination of market data. Unlike in floor-based systems, where "floor traders have an advantage over off-floor traders,"[118] in electronic trading systems, users all over the world can receive instantaneous quotations on dozens of securities and can trade on that information from their desks.[119] As a result, remote traders are no longer disadvantaged to the same extent and are increasingly able to invest in companies overseas.

b) Execution quality (speed and accuracy). Electronic trading also provides faster and often more reliable execution of trades than floor trading. In traditional call auctions, traders must manually record the price, size, counterparty, and instrument traded for each trade.[120] This process inevitably involves human error. Poor execution frequently accompanied orders as securities transactions were either slow or erroneously made through the wrong instrument or order size. With

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mas Serval, *On the Competition between ECNs, Stock Markets and Market Makers*, in Kurt Bauknecht, Sanjay Kumar Madria, and Günther Pernul, eds, *Electronic Commerce and Web Technologies: First International Conference, EC-Web 2000* 291, 306 (Springer 2000).

115 See Stoll, 20 J Econ Perspectives at 161 (cited in note 100) (describing how ECNs get around this difficulty by paying for limit orders or convincing dealers to make a market in the ECN book).

116 See Ben Steverman, *While For-profit NYSE Prospers, Floor Traders Fight for Survival*, Investor's Bus Daily A1 (Feb 2, 2007). This system has proven especially popular among traders, as most trades are now executed electronically on the NYSE. See id.

117 See NYSE Group, *NYSE Hybrid Market FAQ* (2006), online at http://www.nyse.com/pdfs/hybridfaqs.pdf (visited Aug 29, 2008) (explaining that the specialists provide "opportunit[ies] for price improvement" while the electronic exchange offers "sub-second, automated trade execution").

118 Harris, *Trading and Exchanges* at 546 (cited in note 97).

119 Id at 546–47 (noting that electronic trading is also advantageous because traders can sit next to their phones, talk with colleagues, and consult data systems that support their trading). Investors worldwide can receive instantaneous quotations on dozens of currencies, as well as trading data on gold, oil commodities, shipping, stocks, and bonds. Moreover, information is neither site-specific nor held by a select few brokerages and trading professionals—but instead increasingly disseminated throughout the industry through television and the internet.

120 Id at 547 (noting, however, that floor traders can negotiate trade sizes and other details more rapidly than electronic traders can).

electronic markets, however, execution is automatic, and error greatly reduced.[121] Electronic platforms can furthermore be programmed to offer complex orders where contingent trades are "adjusted for changes in index prices or in the prices of other stocks."[122] Once an order is submitted, orders can be sorted according to price/time priority in *milliseconds* without human intervention.[123]

This heightened speed and flexibility have two key implications for trading. First, speed increases the number and volume of orders on any market. In doing so, it heightens competition for orders,[124] as well as reduces the likelihood of unmatched orders.[125] Second, speed also makes trading on foreign markets not only possible but practical. With high processing speeds, even foreign investors are likely to have a successful execution. Unlike in the past, when information moved slowly, foreign traders face fewer risks of nonexecution or preemption by local traders. As a result, foreign traders encounter fewer barriers to participation on far-flung exchanges than was the case under floor trading.

c) Execution cost. Finally, electronic exchanges entail lower fixed costs than those associated with floor trading. Electronic trading has no need for the (at times massive) real estate and facilities required by trading floors.[126] Furthermore, the technology required to run an exchange is increasingly commoditized. The servers that run electronic networks have evolved to handle high order and cancel activity, and network capacity has expanded to handle growing volumes of innovative market-data products.[127] Clearance and settlement technology is

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121 E*Trade Financial, *Capital Markets FAQs* (2008), online at https://capitalmarkets.etrade.com/e/t/capitalmarkets/faqs (visited Aug 29, 2008) (acknowledging that market volatility and volume may still delay execution of electronic orders).

122 Stoll, 20 J Econ Perspectives at 161 (cited in note 100) (listing this as one of five advantages ECNs have over traditional markets).

123 See Richard Martin, *Business at Light Speed: Wall Street's Attempt to Shave Milliseconds Off Transactions Pushes the Limits of Computer Science*, InformationWeek 42 (Apr 23, 2007).

124 With a thicker market, bid-ask spreads are reduced, as well as volatility and uncertainty concerning the price of a security. See Siwa Msangi and Mark Rosegrant, *Agriculture and the Environment: Linkages, Trade-offs and Opportunities*, 19 Georgetown Intl Envir L Rev 699, 708 (2007) (claiming the relative thickness of the grain market is responsible for its decreased volatility compared to other commodities).

125 See Jun Muranaga and Tokiko Shimizu, *Market Microstructure and Market Liquidity* 3 (Imes Discussion Paper Series No 99-E-14, May 1999), online at http://www.imes.boj.or.jp/edps99/99-E-14.pdf (visited Aug 29, 2008).

126 As an example of the kinds of needs of many floors, consider the fact that the Chicago Board of Trade trading floor is as large as a Boeing 747 hanger and wired with 27,000 miles of telephone, computer, and power lines. Craig Pirrong, *Electronic Exchanges Are Inevitable and Beneficial*, 22 Regulation 20, 22 (1999), online at http://www.cato.org/pubs/regulation/regv22n4/pirrong.pdf (visited Aug 29, 2008).

127 See Jeff Brown, *Algorithmic Trading: Why Now?*, 1 Elec Trading J 30, 31 (2005), online at http://fixglobal.com/back_issues/Q6/AMERICAS/Algorithmic%20trading_Q6.pdf (visited Aug 29, 2008) ("Data storage costs have declined to the point where market data, which can run to tens—even

also commercially available to stock exchanges everywhere, and even upstart exchanges have first-class systems managing the technical aspects of their operations.[128]

Technology has similarly reduced the operational costs of running an exchange and executing orders. Some positions required for trading on a trading floor, such as clerks and floor brokers, are no longer needed, and the roles of other players, like specialists, can be curtailed due to enhanced volume. Technology furthermore creates important economies of scale. Unlike traditional trading floors, where the participation of too many traders can overwhelm an oral auction's capacity to process information in an orderly fashion, electronic exchanges offer scalable returns. Once an electronic network is established, increased trading incurs few marginal costs.[129] As a result, electronic trading is not only much faster than floor trading but also potentially less expensive.

Finally, electronic exchanges potentially provide dramatically lower costs for some institutional investors by enhancing anonymous trading.[130] This is important because on trading floors it is difficult for a trader, particularly an institutional investor, to indicate an interest in buying or selling a large block of stock without causing the price of that stock to move ahead of his order.[131] Electronic exchanges, in contrast, offer new prospects for anonymity by allowing institutional investors to trade anonymously. Buyers and sellers of securities are unable to detect the identity of a counterparty, thereby lowering the cost of trades for large institutional players—though potentially raising costs for uninformed traders.[132]

d) A contestable industry. Electronic trading has as a result rendered the exchange industry more competitive. From the standpoint of network theory, electronic trading has diminished the advantages of being a first mover. Technology offers new upstart exchanges competitive advantages in information processing, speed, and accuracy that can overwhelm the network externalities of the old trading floors. Technology also enhances the ability of exchanges to attract a large

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hundreds—of gigabytes daily, may be stored and analyzed inexpensively. Vendor and brokerage systems can now consume and respond to real-time data in intelligent and sophisticated ways.").

128 See Tafara and Peterson, 48 Harv Intl L J at 34 (cited in note 34).

129 Lee, *The Future of Exchanges* at *2–3 (cited in note 69).

130 Benhamou and Serval, *On the Competition* at 294 (cited in note 114).

131 Rightly or wrongly, the market interprets moves by sophisticated, or "informed," traders as a signal as to the desirability of a security and charges a premium for counterparty executions. As a result, institutional investors commonly employ a series of floor brokers to quietly execute parts of one large order in order to provide some anonymity, although such maneuvers are often recognized by other traders. See id.

132 See Huang, *Price Discovery* at *2 (cited in note 107).

number of participants quickly, thereby enabling not only more cross-listings but also more IPOs in foreign market centers.

Electronic trading has also lowered in important ways the barriers of entry to the trading business. Entrepreneurs seeking to start an exchange-like platform can set up alternative trading venues enjoying global reach with advanced computer software and internet access.[133] No human intermediaries are needed.[134]

Importantly, this is not to say that electronic trading is always superior to floor trading for all traders. In many ways it is not. Unlike many, if not most, electronic markets that simply spit out current bid and ask quotes, auction markets offer the opportunity for price improvement.[135] Furthermore, because all orders for a particular stock are funneled through human traders clustered around a human specialist, the outcry system may be structurally superior insofar as specialists may be able to better detect informational trading.[136] This benefit is real and important as many traders would rather wait on a price than execute immediately.

Locational advantages may also be very important, despite the increased speed and accuracy of electronic trading. As mentioned above, some exchanges may have greater numbers of investors interested in a firm than others because local investors may already know the firm as consumers and thus be more willing to invest.[137] Exchanges in certain countries may furthermore provide special benefits where firms have a particular capital need (often for an acquisition) or where firms seek to enhance future growth by promoting contacts and their reputations in the local financial community.[138]

Nevertheless, the emergence of fast, low-cost, and increasingly commoditized trading services has rendered the trading industry much more contestable than at any time in the past.[139] Advances in technology

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133 See Benhamou and Serval, *On the Competition* at 293 (cited in note 114) (noting that "technology can lower the fixed costs [of building a new network] and allow an oligopolistic market structure to emerge").

134 See Iftekhar Hassan, Markuu Malkamäki, and Heiko Schmiedel, *Technology, Automation, and Productivity of Stock Exchanges: International Evidence*, 27 J Bank & Fin 1743, 1747 (2003).

135 See Commissioner Laura S. Unger, *Speech by SEC Commissioner: Trading Floors versus Computer Networks* (Jan 29, 2001), online at http://www.sec.gov/news/speech/spch462.htm (visited Aug 29, 2008).

136 See Hans R. Stoll, *The Stock Exchange Specialist System: An Economic Analysis* 44 (NYU Stern 1989).

137 This may particularly be the case in developing countries with large per capita savings such as China.

138 Marco Pagano, Ailsa A. Röell, and Josef Zechner, *The Geography of Equity Listing: Why Do Companies List Abroad?*, 57 J Fin 2651, 2655 & n 3 (2002) (claiming that firms can only use their own stock as currency for acquiring targets when the firm and its target are listed on the same exchange).

139 This effect has been perhaps best witnessed in Europe. For example, when the London Stock Exchange adopted electronic trading, it greatly improved its efficiency and within months

have allowed exchanges like the London Stock Exchange (LSE) and the Hong Kong Stock Exchange to achieve parity along some important dimensions of liquidity with the NYSE, traditionally the largest exchange in the United States.[140] Furthermore, many smaller exchanges

came to dominate equity trading in Europe in the 1980s. Coffee, 102 Colum L Rev at 1769 (cited in note 10). To reverse the erosion of their domestic securities business caused by competition from London, competitor exchanges in continental Europe hastened to introduce their own automation on a full or partial basis within five years of this move by the LSE. See Norman Poser, *Automation of Securities Markets and the European Community's Proposed Investment Services Directive*, 55 L & Contemp Probs 29, 33 (1992).

140 The LSE in particular has become one of the fastest stock exchanges in the world through a series of successive electronic upgrades culminating in the exchange's Electronic Trading Service in 1997. See *London Stock Exchange Goes Electronic, At Last*, Intl Herald Trib Money Report 21 (Oct 18, 1997) (discussing the LSE's transition from a market maker to an electronic order-matching system); HP Press Release, *London Stock Exchange Becomes World's Fastest with HP and Microsoft Technology* (July 13, 2006), online at http://www.hp.com/hpinfo/newsroom/press/2006/060712xa.html (visited Aug 29, 2008) (touting the advantages of a fast exchange for algorithmic trading). It has also leveraged remote accessing to create one of the largest investor bases in the world, with its trading data disseminated and displayed on more than 107,000 terminals in more than one hundred countries. Microsoft, *Windows Server 2003 Customer Solution Case Study: London Stock Exchange Cuts Information Dissemination Time from 30 to 2 Milliseconds* *3 (Oct 2006), online at http://download.microsoft.com/download/3/a/0/3a0b6465-a87c-45c0-92c8-4cfd8b4415b6/LSE_WinServ03_Final.doc (visited Aug 29, 2008) (quoting LSE employees as stating that increased performance increases the attractiveness of the exchange). This global reach and speed of information has helped the exchange internationalize its listings and increase its market share. In the past three years alone, London has increased its share of the global IPO market from 5 percent to almost 25 percent. Committee on Capital Markets Regulation, *Interim Report* at 3 (cited in note 4) (observing that "there are many considerations that interact in complex ways when companies decide where to raise capital"). The nineteen US companies that entered the LSE in 2005 raised a total of $2.13 billion, and by mid-2006, London boasted a total of thirty-seven listed US companies. Thomas Frostberg, *AIM Grabbing Nasdaq Business: U.S. Companies Find New Investors on London Market*, San Fran Chron D1 (Apr 28, 2006). See Committee on Capital Markets Regulation, *Interim Report* at 3 (cited in note 4) ("In the first nine months of 2006, 11 US companies chose to list in London instead of the United States, raising approximately $800 million."). These companies made the choice despite a possible obligation still to register under the Exchange Act, suggesting important market considerations, likely tied to liquidity, informing firms' decisions t : list.

Similarly, the Hong Kong Stock Exchange surged past New York to become the world's second-most popular place—after London—for companies floating new stock listings. *Hong Kong Sprints past New York for IPOs*, MSNBC (Dec 24, 2006), online at http://www.msnbc.msn.com/id/16348428 (visited Aug 29, 2008) (listing the rise of regional markets, tough new US accounting rules, and proximity to mainland China as factors in Hong Kong's success). Its popularity lies, in part, in the softer (less costly) listing standards it imposes on firms seeking to raise capital there. Id. It also arises, however, from the widespread adoption in 1993 of the Automatic Order Matching and Execution System (AMS), a trading system that rivals the LSE's Stock Exchange Electronic Trading Service (SETS) in terms of system technology and capability. Ron Yiu-wah Ho, Roger Strange, and Jenifer Piesse, *The Structural and Institutional Features of the Hong Kong Stock Market: Implications for Asset Pricing* 20–21 (King's College Management Centre Research Paper No 027, Apr 2004), online at http://www.kcl.ac.uk/content/1/c6/01/15/45/paper27.pdf (visited Aug 29, 2008). This technological sophistication is a necessary predicate for the exchange's ability to attract mainland Chinese listings that otherwise may have listed in London or even the United States. See *World Bourses Scramble for China Action*, Asia Times Online (July 18, 2006), online at http://www.atimes.com/atimes/China_Business/HG18Cb02.html (visited Aug 29, 2008). Because of these advances, the

have harnessed technology in conjunction with locational advantages and high domestic savings to become regional hubs for finance.

These developments have helped contribute to what by all accounts has been the phenomenal success by foreign markets at keeping their domestic firms at home and increasing their market share of lucrative global IPOs. In the first nine months of 2007, only 10.1 percent of global IPOs were listed on a US exchange.[141] This represents a dramatic decrease from 44.5 percent in 1996 and an average of 21.2 percent in the period from 1996 to 2005.[142] Equally important, exchanges in the United States during the first nine months of 2007 captured just 7.7 percent of the total value of global IPOs.[143] The credit crisis has, according to the most recent available data, done little to upend this trend. In the first and second quarters of 2008, US exchanges captured a "trivial" 1.7 percent of global IPOs.[144] Meanwhile, *none* of the twenty largest IPOs took place in the United States.[145]

Foreign exchanges have also increasingly attempted to attract not only mobile foreign issuers, but also US-domiciled companies.[146] Although most established companies are subject to US jurisdiction because they have a significant economic presence in the country, startups and small companies with few shareholders are not. As a result, these companies are capable not only of raising capital in overseas markets but also of migrating to foreign jurisdictions altogether. In the past, such movement has been rare, with fewer than 0.5 percent of all IPOs by US companies listed exclusively on foreign exchanges in 1996.[147] This number, however, has grown exponentially with 9.2 percent listing on a foreign exchange. In this competition for US-domiciled companies, the LSE's Alternative Investment Market (AIM) has been particularly successful, attracting thirty-seven of the forty-three US companies listing solely on overseas exchanges since 2002.[148]

London and Hong Kong exchanges offer increasingly credible alternatives to the US market. See Steven M. Davidoff, *Regulating Listings in a Global Market*, 86 NC L Rev 89, 112 (2007).

141 Committee on Capital Markets Regulation, *The Competitive Position of the U.S. Equity Market* *1 (Dec 4, 2007), online at http://www.capmktsreg.org/pdfs/The_Competitive_Position_of_the_US_Public_Equity_Market.pdf (visited Aug 29, 2008).

142 Id.

143 Id.

144 Committee on Capital Markets Regulation, *Amid Plunging IPO Activity in 2008, CCMR Finds that U.S. Public Equity Market Competitiveness Continues Its Decline* *1 (Sept 3, 2008), online at http://www.capmktsreg.org/press/9-3-08_CCMR_Q2_competitiveness_update.pdf (visited Oct 20, 2008).

145 Id.

146 Committee on Capital Markets Regulation, *The Competitive Position* at *16 (cited in note 141).

147 Id.

148 Frostberg, *AIM Grabbing Nasdaq Business: U.S. Companies Find New Investors on London Market*, San Fran Chron at D1 (cited in note 140).

C. Why Regulators Compete

1. The domestic lobby.

As stock exchanges around the world have achieved more parity in liquidity, regulation has emerged as an even more important factor informing foreign issuers' decisions as to where to list, a fact numerous studies and newspapers have recounted.[149] Foreign issuers, as well as US startups, have more choice than ever as to where to list their securities, and as exchanges have access to an increasingly global base of investors, issuers pay increasing attention to the regulatory costs and benefits associated with listing on a particular stock exchange.[150]

Yet to bring practice to theory, that is, to say that there exists not only a market for securities-related services but also a market for securities laws, there must be a chain of causation connecting heightened demand by issuers for more attractive laws to regulatory change. An examination of the domestic political pressures for regulatory competition offers one useful framework for establishing such linkages. Public choice theory asserts that regulators provide laws where they are compensated for doing so, either in the form of political support, votes, campaign contributions, lobbying expenditures, and the like, or where a failure to do so would galvanize support for political rivals.[151] Thus under this economic view of regulation, laws are purchased by groups of individuals with similar policy goals that can offer superior political rewards or punishment.[152]

To be sure, the dynamics of the US securities marketplace readily reveal at least five powerful interest groups poised to benefit immensely from attractive securities regulation, particularly in an environment

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149 See Ernst & Young, *Globalization: Global IPO Trends Report 2007* 8 (2007), available online at http://www.ey.com/Global/assets.nsf/International/SGM_IPO_Trends2007/$file/Global_IPO_Trends_2007.pdf (visited Aug 29, 2008) (noting that because "[c]apital is global today ... the choice of exchange comes down to location, regulation, cost and where it feels most natural to be listed"). This has had a significant impact on US exchanges, particularly in light of Sarbanes-Oxley. See Beth Carney, *Foreign Outfits Rue Sarbanes-Oxley*, Bus Wk Online (Dec 15, 2004), online at http://www.businessweek.com/bwdaily/dnflash/dec2004/nf20041215_9306_db016.htm (visited Aug 29, 2008) (reporting that many foreign companies, in the face of increased costs associated with Sarbanes-Oxley, were planning to delist from US-based exchanges, particularly as "U.S.-based institutional investors become more willing to buy shares on European markets"); Marshall McKnight, *Pulling Up Their SOX*, NJBiz (June 28, 2004), online at http://www.njbiz.com/article.asp?aID=98928986.6635706.783159.9249798.6079763.594&aID2=60234 (visited Aug 29, 2008) (predicting that, as a result of increased regulation by Sarbanes-Oxley, many smaller companies will either choose to remain private or decide to list their shares on the LSE rather than bear the expense of compliance).

150 See, for example, Ernst & Young, *Globalization* at 16 (cited in note 149).

151 See Jonathan R. Macey and Geoffrey P. Miller, *Toward an Interest-group Theory of Delaware Corporate Law*, 65 Tex L Rev 469, 506 (1987).

152 See id.

in which domestic markets face stiff competition from foreign exchanges. Those with the most to gain are, most likely, the owners of stock exchanges themselves. Where securities regulations enhance the competitiveness of an exchange, and thereby its trading volume, investors enjoy greater revenue from commissions.[153] Furthermore, any improvement in the attractiveness of an exchange's governing securities regime should be reflected in the price of the exchange's shares.

Alongside investors in stock exchanges are the brokerage firms and specialists that trade on the exchange. These market participants pay millions of dollars a year to have seats on an exchange and are able to recoup their investments only to the extent to which transactions remain on their exchange. As a result, where securities regulations enhance the competitiveness of an exchange, and thereby positively impact trading volumes, participants will enjoy greater returns on their investment.[154]

As a third group, employees of stock exchanges—a highly sophisticated group of professionals including managers, economists, compliance directors, and in-house counsel—also benefit when exchange rules and regulations help increase the number and value of transactions taking place on exchanges. In particular, where exchanges improve their financial performance, employees enjoy more job security and, potentially, opportunities for advancement. If, on the other hand, exchanges are unable to attract listings and grow their business, employees will face less job security and possible unemployment.[155]

Fourth, there are powerful indirect beneficiaries that process transactions executed on exchanges.[156] For these financial services professionals—a group including transactional lawyers, investment bankers, and accountants—unattractive laws drive transactions away from domestic markets overseas to foreign markets. These lost transactions will not be fully recoverable because these professionals are not fully mobile and on an individual basis cannot pursue transactions without significant costs.[157] In particular, the value of their expertise rapidly

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153 See Ruben Lee, *The Future of Securities Exchanges* at *2–3 (cited in note 69) (observing that transaction fees are the largest source of revenue for most exchanges but this fact may change as the marginal cost of each trade diminishes through technological improvements).

154 Ribstein, 1 Rev L & Econ at 121 (cited in note 10) (noting that any increase in the volume of securities transactions directly benefit specialists on exchanges and market makers who manage trading of shares).

155 The risks of unemployment are greater now than ever before due to the fact that exchanges are not member-owned but publicly traded. See Macey and O'Hara, 58 Stan L Rev at 574 (cited in note 84) (noting that the "market for control creates incentives for managers to further shareholder interests by threatening managers with job loss" when performance is poor).

156 These indirect beneficiaries are identical to those in the corporate context. See Macey and Miller, 65 Tex L Rev at 493–94 (cited in note 151).

157 I speak here of individuals, not firms. On the firm level, it is entirely possible to adapt to changes in the market through the creation of affiliates or by merging with competitors.

depreciates outside of their home jurisdictions, since they are not trained to operate outside of national boundaries.[158] Furthermore, the kinds of fees that transactions generate overseas may be less lucrative since financings may not involve the same levels of micromanagement and transaction involvement that domestic regimes may require.

Finally, there are, of course, the issuers themselves. Importantly, this group involves not only foreign issuers that benefit from exemptions allowing them to escape unattractive (and often stringent) regulatory obligations. It also comprises both large and small domestic firms. Small companies, as discussed above, are highly mobile and like foreign issuers can generally escape US securities laws and raise capital exclusively overseas. Meanwhile domestic companies, though possessing a large US shareholder base and thus subject to US jurisdiction, may still seek regulatory reforms that minimize the cost of capital at home. Indeed, they may gain from any kind of regulatory reform, even those involving foreign issuers, insofar as they are better poised to push for equal treatment by their home-state regulators.[159]

It is perhaps then of little surprise that with the greater automation of exchanges these groups have coordinated efforts to vigorously promote the competitive home-state securities laws. Especially since the enactment of Sarbanes-Oxley—a legislative initiative that has steeply increased the cost of raising capital in the United States—US financial services professionals have been increasingly aggressive in calling for flexible and lower-cost regulatory regimes. These groups have worked through the broader business community and the US Chamber of Commerce, widely regarded as the most powerful lobby in Washington,[160] as well as through their own professional associations, to promote more attractive securities laws and regulation of financial services.[161] They have also held coordinated "town halls" throughout the country, as well as worked through financial media organizations, to urge adoption of "principles-based" regulatory approaches popular in Europe that stress cooperation with securities authorities, as opposed to compliance.[162]

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158 See Macey and Miller, 65 Tex L Rev at 486 (cited in note 151). Many individuals likely also face a variety of frictions to mobility, like family circumstances or language ability.

159 See Ribstein, 1 Rev L & Econ at 129 (cited in note 10) (arguing that "exempting foreign stocks may undercut the rationale for mandatory disclosure"). The policy implication is that there are at least some strong "benefits to requiring all firms in a market to be subject to the same disclosure rules." Indeed, the benefits to uniformity "when combined with the benefits of mandatory disclosure for the foreign firms, [ ] bolster[] the case against a foreign firm exemption from mandatory disclosure." Id at 130.

160 See Jeffrey H. Birnbaum, *A Quiet Revolution in Business Lobbying*, Wash Post A01 (Feb 5, 2005) (noting the Chamber of Commerce has gone as far as suing the SEC over securities regulations).

161 Id.

162 See, for example, Allison Dabbs Garrett, *Themes and Variations: The Convergence of Corporate Governance Practices in Major World Markets*, 32 Denv J Intl L & Policy 147, 174 (2004); Ruth O.

2. The government interest.

Regulators also have their own endogenous incentives to offer attractive securities laws and draw transactions to their jurisdictions. As other commentators have noted, securities transactions create both employment[163] and an enormous amount of tax volume and revenue for host cities and host countries. First, not only can the securities transaction itself be taxed[164] but so can the income of the firm generated by the transaction and the personal yearly income of the individuals executing the deal (which the transaction makes possible).[165] Finally, once securities are liquidated on the market, any capital gains on the appreciation of a security investment can be taxed.[166]

On the other hand, where securities transactions are executed overseas, opportunities to tax may be dramatically reduced, depending on the jurisdiction of the state.[167] This decrease in revenue has two important consequences. First, it lowers the operational revenue for the state. The state will thus be less able to offer to constituents services that allow lawmakers to derive the kinds of political benefits that facilitate reelection and cement their power. Second, declines in operational revenue reduce the extent to which the state will be able to wield influence

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Kuras, *Harmonization of Securities Regulation Standards between Canada and the U.S.*, 81 U Detroit L Rev 465, 472 (2004). See also Commission on the Regulation of US Capital Markets in the 21st Century, *About the Commission: Mission*, online at http://www.capitalmarketscommission.com/portal/capmarkets/commission/default (visited Aug 29, 2008) (discussing town halls organized by the US Chamber of Commerce to decide on a reform agenda that would ensure the competitiveness of the US capital markets).

163 In the United States, for example, the securities industry directly accounts for one in every nineteen jobs. Michael R. Bloomberg and Charles E. Schumer, *Sustaining New York's and the US' Global Financial Services Leadership* 36 (2007), online at http://www.schumer.senate.gov/SchumerWebsite/pressroom/special_reports/2007/NY_REPORT%20_FINAL.pdf (visited Aug 29, 2008) (highlighting a study showing that each securities job also creates two additional jobs in other industries). See also Alan G. Hevesi and Kenneth B. Bleiwas, *The Securities Industry in New York City* 1 (Oct 2006), available online at http://www.osc.state.ny.us/osdc/rpt9-2007.pdf (visited Aug 29, 2008).

164 In New York State, for example, a tax is imposed on the sale or transfer of, among other things, shares of stock, certificates of stock, and certificates of rights to stock. NY Tax Law § 270(2) (Consol 2007) (imposing a tax of 2.5 cents on each share transferred). Although the effects of the stock transfer tax were phased out through a series of rebates, the tax is maintained in order to meet certain funding requirements of the Municipal Assistance Corporation. See id at § 280-a (allowing a full rebate on the tax paid to the extent funds are available in the stock transfer incentive fund).

165 Specifically, in the United States, individuals and corporations pay tax on distributions from corporations in which they hold shares of stock. See IRC § 301 (2007).

166 See IRC § 1(h).

167 The critical issue in many jurisdictions will be where the person holding the shares resides and where the corporation resides. And even in the event where the state prevents financial engineering from allowing individuals to escape taxation, the state will still likely lose tax revenues on the actual transaction.

over not only its constituents but also among its peers.[168] As a result, strong incentives are in place for governments to appeal to issuers.

3. Regulatory change for foreign and domestic issuers.

Recent evidence suggests that these dynamics are having a significant impact on the provision of securities laws for both foreign and domestic companies. Many foreign countries, on the one hand, have introduced more stringent laws for all issuers in order to attract investors and signal their commitment to sound corporate governance.[169] Especially in the wake of Sarbanes-Oxley, which though costly trumpeted America's commitment to superior corporate governance,[170] governments in Asia and Europe have sought to selectively integrate elements of US law that they believe will most promote the reputations of their capital markets.[171] The United States, too, is vigorously engaged in securities law reform, though it is actively seeking to make its laws less burdensome for issuers. Regulators have, for example, made deregistration easier for foreign private issuers' companies, thereby lowering the risk of opting into the US securities regime,[172] as well as permitted foreign private issuers to file information electronically[173] and use international financial reporting standards (IFRS) in lieu of US Generally Accepted Accounting Principles (GAAP).[174] Indeed, as discussed above, the government is even consider-

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168 See Chris Brummer, *Ties that Bind?: Regionalism, Commercial Treaties, and the Future of Global Economic Integration*, 60 Vand L Rev 1349, 1400–05 (2007) (noting how more powerful countries, including wealthier ones, are able to defect from international agreements and force compliance from smaller states).

169 See Pan, *Why the World No Longer Puts Its Stock in Us* at *11–12 (cited in note 8) (arguing that several foreign countries "have adopted the best parts of the US legal regime—diminishing many of the advantages of coming to the United States").

170 See Floyd Norris, *Reasons Some Firms Left the U.S.*, NY Times C1 (Augt 8, 2008) (arguing that Sarbanes-Oxley created benefits for issuers and helped to restore investor confidence following the financial scandals of 2001).

171 See Pan, *Why the World No Longer Puts Its Stock in Us* at *11–12 (cited in note 8).

172 See Rule 12(h)-6, 17 CFR § 240.12(h)-6 (2007).

173 Of course, not all regulators will face the same domestic lobbying pressures. Though countries may have their own incentives to increase the size of their financial centers (see below), the degree of domestic pressure any regulator will face will depend in large measure on the size of its domestic financial center. Countries, in other words, with small financial centers, will face less pressure from financial services professionals since they will be smaller in number and likely less wealthy. Regulators will furthermore face less domestic pressure to expand or protect capital markets where countries have less open political processes. Thus a country like China will likely face less domestic opposition to its failure to create a vibrant capital market than a country like the United States or the United Kingdom.

174 See Pan, *Why the World No Longer Puts Its Stock in Us* at *11 (cited in note 8); Tafara and Peterson, 48 Harv Intl L J at 50 (cited in note 34) (arguing that although IFRS standards can be an "admittedly complicated process, [it is] one far less onerous than having the financial statements be prepared entirely using U.S. GAAP").

ing—in a rebuke to its traditional resistance to reciprocity[175]—mutual recognition regimes where compliance with foreign securities laws could be effectively substituted for compliance with US securities regulations.[176]

There is also increasing indication that such laws are having important spillovers for large domestic companies. In the past, the US government largely exempted foreign private issuers from onerous obligations to which domestic companies would still be subject. Now, however, many of these reforms are shared by US-domiciled companies or are in the process of being considered for extension to US companies. US issuers can, for example, file electronically and would by definition enjoy overseas selling opportunities, and it is likely that US companies will eventually be able to submit their financial information using IFRS.[177] The extension of such benefits to domestic registrants is in large part due to the fact that when the government grants relaxed financial obligations to foreign issuers, it is extremely difficult to justify why such rules should not govern domestic companies in the absence of abuse.[178] This is all the more the case where foreign standards become dominant as overseas financial centers increase in size and importance. Thus harmonization becomes important,[179] and US companies find themselves at a disadvantage where their competitors can raise money more easily or at lower cost.[180] In such circumstances, incentives for lobbying will increase and the lawmakers will draw larger political costs (and possibly fewer economic benefits) for refusing to extend such benefits to domestic companies—or curtailing benefits for foreign issuers.[181]

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175 See John Coffee, *The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications*, 93 Nw U L Rev 641, 702 (noting that the SEC has steadfastly resisted any reciprocal prospectus system under which foreign issuers could issue securities in the US based on their home country's disclosure standards).

176 See text accompanying notes 34–37.

177 See generally Sarah Johnson, *Goodbye GAAP*, CFO Mag (Apr 1, 2008) online at http://www.cfo.com/article.cfm/10919122 (visited Aug 29, 2008).

178 See Louis Lowenstein, *Financial Transparency and Corporate Governance: You Manage What You Measure*, 96 Colum L Rev 1335, 1338 (1996).

179 In such circumstances, applying different standards to foreign and domestic firms makes interfirm comparisons more difficult. Ribstein, 1 Rev L & Econ at 130 (cited in note 10). See also Paul Diaconu, Sr., *Impact of Globalization on International Accounting Harmonization* *4 (unpublished manuscript, Jan 18, 2007), available online at http://papers.ssrn.com/abstract_id=958478 (visited Aug 29, 2008).

180 See Coffee, 93 Nw U L Rev at 672 (cited in note 175).

181 The latter kind of harmonization, though rare, is not without precedent. Indeed, citing technological advances, the SEC proposed alongside the availability of electronic submissions a shortened filing deadline for annual reports by foreign private issuers in a way that brought them more closely in line with US issuers.

III. STOCK EXCHANGES AND THE NEW PRIVATE MARKET FOR SECURITIES LAWS

Advances in technology have not only helped establish the conditions necessary for a public market for law by intensifying competition between securities regulators for foreign issuers. As this Part demonstrates, the creation of international linkages with foreign competitors—a process in part made possible by the rise of electronic trading—has also facilitated the emergence of what can be viewed as a "private" market for securities law. By integrating their markets with competitors, exchanges are able to provide an expanded menu of regulatory options to companies seeking financing. In doing so, exchanges are evolving into not only sellers of markets but also sellers of domestic *and* foreign law. This phenomenon will have a variety of (at times conflicting) implications for regulatory competition.

A. The Rise of International Linkages

In the face of unprecedented competition in the trading industry,[182] exchanges have had to adapt their organizational structures and function. One increasingly dominant response has been the development of international linkages, a process connected, as are the new public markets, to the microstructural evolution of stock exchanges.

1. Investment in competitors.

Three basic forms of internationalization are taking place, each of which is considered in turn. First, many exchanges are acquiring minority interests in foreign competitors, an approach not uncommon among international competitors in various industries.[183] Foreign interests allow exchanges to participate in the profits of a foreign exchange through share appreciation and possibly dividends. This participation may be of strategic value where one exchange either faces or perceives itself as facing competitive disadvantages in terms of regulatory costs or technology.[184] As shareholders, exchanges are better positioned

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182 See Part II.

183 This is perhaps best reflected in the NYSE's many tie-ups with exchanges around the world like the Tokyo Stock Exchange and National Stock Exchange, the largest stock exchange in India. See, for example, Lauren Hilgers, *Closely Watched Partnership: NYSE, Tokyo Exchange Already Tight*, Sec Industry News (Feb 5, 2007), available on Westlaw at 2007 WLNR 2200669 (noting the intended alliance between the two exchanges, but acknowledging that NYSE is unable to purchase shares in Tokyo Stock Exchange as the exchange does not plan to go public until 2009); NYSE Euronext News Release, *NYSE Group to Purchase 5% Equity Interest in National Stock Exchange, India's Largest Financial Marketplace* (Jan 10, 2007), online at http://www.nyse.com/press/1168342114215.html (visited Aug 29, 2008).

184 This is not unusual.

to influence the strategic direction of their competitors in ways that may be complementary with their own operations.

This approach has, however, critical limitations. Perhaps most important, investing in a competitor can help provide competitors with the funding needed to increase their market share at the investor exchange's expense. Any loss of market share would be internalized by companies as a net loss since they would receive only a pro rata appreciation in share price based on their interest in the company. Furthermore, minority stakes do not provide investor exchanges with control of operations. Though they may allow exchanges to get a strategic foothold in the company, the influence of investor exchanges is often quite limited, as both management and shareholders may have a different strategic vision for the company.

2. Strategic alliances.

As an alternative path to internationalization, many exchanges are seeking so-called "strategic alliances" with other exchanges that integrate, at least in part, the operations of exchanges. These alliances, often informal agreements to conduct limited joint ventures, create an institutional framework for deeper cooperation. Some exchanges have, for example, decided to adopt similar trading technologies in an effort to reduce research and development costs,[185] whereas others are adopting common clearing and settlement technologies in order to accelerate the process of clearing the paperwork accompanying transactions.[186] Through such cooperation, exchanges are seeking not only to diversify their revenue sources but also to reduce operating costs and potentially provide listing firms with access to investors on both markets.[187]

Yet like minority participation, strategic alliances have important potential drawbacks. First, strategic alliances do not provide deep integration of participating exchanges. As a result, the interests of each exchange remain largely unaligned insofar as each exchange is looking to maximize its own profits. This means that negotiations for cooperation in strategic alliances may prove costly. Where exchanges seek technological alliances, exchanges not only have to negotiate the

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185 See Ian Domowitz and Benn Steil, *Automation, Trading Costs, and the Structure of the Securities Trading Industry*, in Robert E. Litan and Anthony M. Santomero, eds, *Brookings-Wharton Papers on Financial Services 1999* 33, 44 (Brookings 1999) (noting that the Chicago Mercantile Exchange has adopted the same technology as that of the Marché à Terme International de France, France's primary futures exchange).

186 Id.

187 The scalability of electronic trading furthermore makes the operational costs of merger more attractive, and more profitable activity results as more trades can be facilitated on the same platform with no marginal costs.

common agendas, but they also have to manage the implementation process, which may involve the sharing of sensitive technology and best practices. Furthermore, exchanges may not agree on which trading technology is the most desirable or to what degree common ventures can be sought. All along, any venture may prove quite fragile since strategic alliances among exchanges are often neither mutually exclusive nor legally binding.[188]

3. Cross-border mergers.

Because of the limitations of intrafirm, arms-length negotiations, many exchanges are seeking to merge formally with foreign competitors to create new transnational entities. Cross-border mergers provide three key benefits. First, as with other kinds of linkages, mergers diversify revenue sources. Where, for example, two exchanges trade different kinds of products such as equities and derivatives, one may acquire the other in order to attain a strategic foothold in another line of business.[189] Furthermore, if one exchange is competitively disadvantaged due to inefficient or harsh regulation in one country, it can continue to enjoy revenues or profits from a subsidiary not subject to the same regulatory rules. Mergers eliminate concerns of international market share. If one exchange loses business to an affiliate, the parent company will continue to enjoy the same level of revenue.[190]

Second, mergers align the interests of both exchanges' shareholders and managers, as all stakeholders seek to maximize the profits of the new firm. This alignment promotes not only the sharing of intellectual property and other intangibles that in other less formal contexts would be either difficult or costly to negotiate; it also facilitates the utilization and exploitation of best practices and best technology firmwide.[191] If one exchange has, for example, better technology pertaining to the clearing or settlement of a transaction—a key factor animating

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188 The Hong Kong Stock Exchange, for example, has strategic alliances with both the LSE and the NYSE.

189 This was partially the case in the NYSE-Euronext merger, through which the NYSE sought to not only acquire a European outpost but also to diversify into derivatives. See Ivy Schmerken, *CME and CBOT to Merge Derivatives Exchanges*, Wall St & Tech: Blog (Oct 18, 2006), online at http://wallstreetandtech.com/blog/archives/2006/10/cme_and_cbot_to.html (visited Aug 29, 2008). Such considerations may be of increasing importance in the wake of the credit crisis as derivatives like credit default swaps are increasingly traded on exchanges. See Erik Sirri, *Testimony Concerning Credit Default Swaps* (Oct 15, 2008) (testimony of Director, SEC Division of Trading and Markets, before the House Committee on Agriculture), available online at http://www.sec.gov/news/testimony/2008/ts101508ers.htm (visited Oct 20, 2008).

190 This assumes, of course, that there are no adverse tax consequences penalizing (or making more advantageous) overseas operations.

191 Roberta S. Karmel, *The Once and Future New York Stock Exchange: The Regulation of Global Exchanges*, 1 Brooklyn J Corp, Fin & Comm L 355, 357 (2007).

recent mergers—that technology can be duplicated (or in some cases used directly) by the foreign affiliate with few intellectual property concerns.[192] In doing so, mergers make possible faster and more productive responses to organizational shortcomings than would be available in a joint venture or informal strategic alliances.

Finally, mergers make possible the creation of a common trading platform on which traders on both exchanges can buy and sell securities.[193] Such a platform would be impossible on a traditional trading floor given the requirements of geographic proximity. Yet for electronic exchanges, common platforms could arise through either the standardization of existing technologies or the integration of each exchange's trading network.[194]

A common trading platform would give transnational exchanges two additional advantages over competitors, even in the current environment in which each exchange is governed by different regulators. First, a common trading platform concentrates the flow of resources of both exchanges to the development of one network for trading. This could help promote more powerful technology to handle greater liquidity as the technological demands on exchanges grow as more traders use increasingly sophisticated trading techniques.[195] Moreover, the costs of developing trading technology are fixed, so big economies of scale can be gained by adding more shares or other financial products to a platform.[196]

A common platform would also facilitate the trading of cross-border securities. Such trading could take the shape of "global" shares that meet each jurisdiction's regulatory requirements. Or investors could devise new vehicles and products like exchange-traded funds, that is, baskets of securities pegged to various indexes, which could be used to help diversify the portfolio of investors.[197] For both kinds of investments, a cross-border, global pool of investors can be created, thereby greatly enhancing liquidity and all of its attendant advantages.

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192 In the NYSE-Euronext merger, clearing and settlement technology was a critical motive for merging the two exchanges. Eliminating or reducing paperwork for investors can, experts believe, potentially reduce costs for investors by as much as 18 percent. *Battle of the Bourses*, Economist 66 (May 27, 2006).

193 See Karmel, 1 Brooklyn J Corp, Fin & Comm L at 378 (cited in note 191) (using the exchanges that comprise Euronext as an example of where this has occurred).

194 Id.

195 See *Battle of the Bourses*, Economist at 66 (cited in note 192) (noting that many hedge funds in particular "use automated algorithmic trading methods that spew out vast quantities of electronic limit orders designed to exploit trading opportunities that may exist for only a fraction of a second").

196 Id.

197 See *NYSE-Euronext Merger Gains Momentum*, Voice of America (May 24, 2006), online at http://www.voanews.com/english/archive/2006-05/2006-05-24-voa28.cfm?CFID=148349576&CFtoken=58307589 (visited Aug 29, 2008).

Mergers have as a consequence been immensely popular for both American and foreign stock exchanges. As early as 2000, exchanges in Amsterdam, Paris, and Brussels combined to create Euronext, a pan-European exchange, which the Portuguese stock exchange (BVLP) joined in 2002.[198] Then on June 2, 2006, the NYSE announced a widely hailed plan to merge with Euronext to create the first transatlantic exchange.[199] In response to this move, which created the largest securities market in the world, Nasdaq—the NYSE's principal domestic competitor for new listings—announced that same year plans to acquire the LSE. Though Nasdaq's bid ultimately failed, the bids by America's two largest stock exchanges sparked a wave of tie-ups and mergers reshaping not only stock exchanges but also derivatives exchanges all over the world.[200] Not only did the Nasdaq eventually purchase an important European Exchange, the OMX, but its failed bid helped make way for bourses in Dubai and Qatar ultimately to acquire a majority stake and control over the LSE.[201]

B. Transnational Exchanges and the Law

1. Transnational exchanges as sellers of foreign law.

Transnational mergers carry important implications for home-state regulators. After most mergers, each arm of an exchange is subsumed under a newly created parent company. As a result, the new transnational entity operates multiple trading floors governed by different regulatory standards. This organizational innovation positions the parent company to be able to offer prospective clients a menu of regulatory options. Thus where a listing firm may be discouraged from listing on one particular trading floor due to that floor's high regulatory costs or burdens, the parent can propose that the firm list its securities on an affiliated foreign exchange. The possibility of offering alternative jurisdictions to companies empowers exchanges to act not only as sellers of markets but also as *sellers* of foreign law.

This functional transformation of exchanges from at times passive "facilitators" of home-state laws to "sellers" of foreign laws effectively

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198 See generally Richard Carpenter, *What's Next for Euronext?*, IR Mag (Sep 2002), online at http://www.thecrossbordergroup.com/pages/824/September+2002.stm?article_id=9915 (visited Aug 29, 2008).

199 See *NYSE and Euronext in $20bn Merger* (cited in note 5).

200 *Stock Exchanges: Coming Together*, Economist 14, 14–15 (Mar 18, 2006) (identifying the growth of electronic trading, the end of exchanges as clubs, and the demands of investors who rely on complex crossborder strategies as the catalysts for the wave of mergers).

201 See *Qatar, Dubai Gain Control of London Stock Exchange*, Herald Sun (Sept 24, 2007), online at http://www.news.com.au/heraldsun/story/0,21985,22470317-5005961,00.html (visited Aug 29, 2008).

decouples law from markets, a key objective of the issuer choice-of-law literature.[202] The most important implication of this functional transformation is not, however, that issuers are granted choice as such since electronic trading provides issuers with a range of potential cross-border options independent of international affiliations. Instead, it is that in facilitating issuer choice, transnational mergers potentially make opting for foreign markets easier and more attractive. Generally, mergers enhance the prestige of both the acquirer exchange and the acquired, and the weaker partner in particular may be able to free ride on the stronger, or more established, exchange's reputation and experience. This enhanced stature makes the overseas affiliate a more credible venue for trades than it would have been as an independent entity.

Furthermore, where the administration and technology of exchange affiliates are standardized, cross-border mergers potentially reduce switching costs. Because mergers increase the likelihood that both the acquirer and target will adopt similar protocols and operations, movement to another network will not necessarily force firms to relearn "how" to list or trade securities. Managers of firms listed on any given exchange are instead more likely to face fewer uncertainties as to the rules and regulatory posture concerning trading on an exchange's affiliates.

Thus by making some foreign options available to listing companies more credible and by potentially reducing switching costs, exchanges increase issuer mobility. Not only is it logistically easier for firms to delist from exchanges and relist on foreign affiliates but, more importantly, the options available to issuers are enhanced. These developments further heighten the importance of regulation in an issuer's decision as to where to list its securities. Prospects for regulatory competition thus increase.

2. Transnational exchanges as promoters of regulatory convergence.

Though mergers have the likely effect of enhancing regulatory competition, economic theory suggests that mergers may also create powerful incentives for exchanges to promote regulatory convergence. This is because although one parent exchange may own a geographically diverse array of exchanges, companies listing their securities on multiple exchanges in different jurisdictions generally still must register with each exchange's local regulator. This means that companies located in less stringent regulatory systems would thus face higher scrutiny and regulatory costs if they sold their securities in jurisdictions subject to

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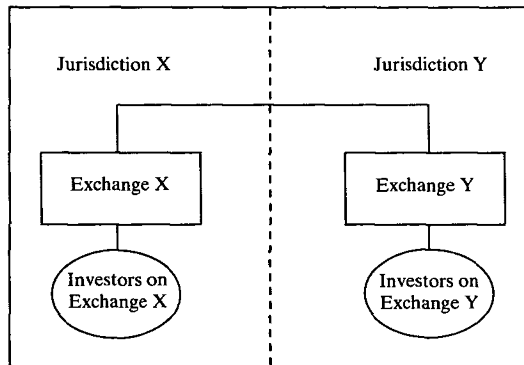
202 See Part I.B.

more stringent or costly rules. Similarly, even companies located in tougher or more stringent jurisdictions would potentially still have to hire lawyers, accountants, and translators to ensure compliance with a less demanding foreign regulator's registration rules.[203]

Because of the high transaction costs of multijurisdictional listings, the liquidity pools of affiliates in even merged, transatlantic exchanges are largely segmented. Firms with shares in one jurisdiction will largely market and sell those shares only to investors in that jurisdiction.[204]

FIGURE C
THE PROBLEM OF SEGMENTED LIQUIDITY POOLS



This situation creates a conundrum for exchanges since cross-border trading would greatly enhance liquidity. As mentioned above, the potential investor base for listing companies would expand to include all participants connected to each affiliate's trading system.[205] Trading volume would also increase as shares could be bought and sold across exchanges. This enhanced liquidity would comprise a significant competitive advantage that transatlantic exchanges could offer issuers that purely domestic exchanges could not emulate. As such, it would help exchanges not only attract new issuers but also charge higher commissions since its markets would provide more advantages for issuers and investors.[206]

These unrealized economies of scale create enormous incentives for exchanges to push for regulatory convergence among local exchange regulators and thereby diminish legal heterogeneity, which is the major

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203 This would be, and indeed is, the case even where firms cross-list.

204 This is the case even though investors in other jurisdictions are able to invest unsolicited.

205 See text accompanying notes 193–91.

206 See Ian Domowitz, *Electronic Derivatives Exchanges: Implicit Mergers, Network Externalities, and Standardization*, 35 Q Rev Econ & Fin 163, 169 (1995) ("If the liquidity effect is large enough, traders will . . . be willing to pay for it.").

obstacle to cross-border trading.[207] Exchanges can unilaterally realize some convergence by making more uniform those trading and listing rules on affiliate exchanges that are not subject to home-state regulation.[208] Additional convergence, however, would require lobbying home-state regulators, resulting in subsequent international agreement.

Cross-border mergers may, as a result, create a complex, and potentially contradictory, dynamic. On the one hand, transnational exchanges enhance regulatory competition through easier exit of listed securities. At the same time, however, these conglomerates increase pressure on regulators to create mechanisms for legal convergence.

The extent to which convergence enhances regulatory competition will depend largely on the form convergence takes. Convergence among regulators occurs in two distinct ways: by mutual recognition and by standardization.[209] On the one hand, mutual recognition would take the shape of the issuer choice model spelled out above (unless under exchange choice exchanges choose the same regulator). Regulators of exchanges would recognize one another's validity in their own jurisdictions, thereby permitting firms to list their securities anywhere so long as they conformed to their home-state regime. Standardization, on the other hand, would take place where regulators of exchanges adopted identical rules and regulations for transactions on the exchange. As such, standardization would conversely remove any element of regulatory diversity and, with it, issuer choice.

IV. COMPARING CHOICE-OF-LAW REFORMS AND THE NEW MARKETS

The identification of new markets for securities law prompts closer scrutiny of the extent of regulatory competition made possible by advances in exchange microstructure and organization. This Part provides a framework for such analysis by comparing the new markets to the choice-of-law reforms. Part IV.A examines the new markets and shows how, even with technological advances, remaining liquidity imbalances among financial centers will continue to distort competition among some regulators. Part IV.B then shows, however, that both exchange choice and substituted compliance are subject to similar externalities. Only issuer choice creates what can be viewed as a purer regulatory

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207 The literature suggests that such efforts could be quite effective given the inordinate bargaining power of exchanges. See Licht, 41 Va J Intl L at 615–18 (cited in note 10) (arguing that stock exchanges have powerful leverage to the extent to which they operate like wholesale agents of issuer regulatory preferences).

208 See *Battle of the Bourses*, Economist at 67 (cited in note 192).

209 See E. Waide Warner, *"Mutual Recognition" and Cross-border Financial Services in the European Community*, 55 L & Contemp Probs 7, 9, 13 (1992).

market. Part IV.C then shows how the new markets may, despite the persistence of liquidity-related externalities, result in regulatory outcomes similar to those arising under issuer choice. Finally, Part IV.D examines the implications of these insights for debates concerning regulatory competition and proposes further pathways for research.

A. Liquidity Distortions in the New Markets for Law

The new markets for securities laws hail new regulatory dynamics as regulators vie for listings in an increasingly competitive market for issuers. This development, marking the transformation of the market for securities laws from a "seller's market" to a "buyer's market," stands in sharp contrast to the dominant literature which largely envisages regulators as having unlimited pricing power over the regulations they charge issuers.

Nevertheless, the new markets still fall short of what can be considered a pure regulatory market. Economic theory suggests that regulatory competitiveness can be evaluated not only in terms of the choice available to issuers but also, more specifically, in terms of the degree to which the decisions of market participants are based on the attractiveness of a jurisdiction's laws and not other factors. The more a firm's decisionmaking process is distorted by extralegal factors, the less regulators compete directly with one another—and thus the less competitive a regulatory market will be.

From this standpoint, the competitiveness of the new markets remains constrained. Critically, competition does not arise from formal legal choice or direct linkages between firms and rules. Instead, it arises from microstructural innovations that level the once-significant differences in liquidity among financial centers. In the wake of this parity, foreign firms enjoy more choice as to where to raise capital, which causes regulators to compete and positions domestic firms in the wake of subsequent regulatory change to lobby for equal treatment.

Thus, central to today's demand for attractive securities laws is the role of liquidity parity as a catalyst for regulatory competition. The lower the differences in liquidity among exchanges, the greater the regulatory competition. Insofar as there are material differences in market liquidity, however, any exchange's advantages will be internalized by firms as positive externalities that inform an issuer's decision as to where to list its securities. This is an especially important observation since liquidity differences, though diminishing rapidly because of electronic trading, still exist and are likely to persist. Exchanges with newer technology will generally be faster than others, whereas other exchanges still may offer, due to their incumbency or positive network externalities, more liquidity. Locational advantages, though greatly reduced, also still may persist. Local markets not only operate in

the same time zone as the issuer, allowing for an easier internalization of information in an issuer's share price, but they are also populated by investors that may have an enhanced knowledge of an issuer's products or services.[210]

Furthermore, even if one envisions a perfectly competitive market among exchanges, such an equilibrium would almost certainly be unstable. As electronic mediums, exchanges are subject to constant innovation. New technology is frequently introduced, giving exchanges wielding the technology competitive advantages over others. Complete parity over time is thus extremely unlikely in today's dynamic capital market environment.

As a result, nonregulatory factors continue to inform the decisionmaking of firms and will likely do so for the foreseeable future. Although the commoditization of trading has radically altered the global regulatory landscape and increased pressure on regulators to provide attractive laws, exchanges still offer essentially bundled products of law and liquidity, with the latter continuing to provide some exchanges (albeit a diminishing number) with a certain set of competitive (albeit also diminishing) advantages. Not all regulators will consequently face the same pressures to reform their securities laws, and unattractive and inefficient laws will have a greater chance of survival than they would have in a pure regulatory market.

B. Liquidity Distortions and Choice-of-Law Reforms

The distortions that inhibit the new markets suggest that for proponents of regulatory competition the emerging regulatory field represents only a second-best approach as compared to choice-of-law reform proposals that seek to create pure regulatory markets. This Part shows, however, that as a descriptive matter, choice of law by itself does not necessarily cure liquidity distortions and may even undermine competition currently arising in the new markets. Only issuer choice reform creates a comparatively purer regulatory market.

1. Exchange choice.

As discussed in Part I, exchange choice seeks to enhance regulatory competition by allowing stock exchanges themselves to choose the home-state regulator for their markets. When endowed with choice, it is assumed that exchanges would seek out laws that reflect

[210] Chinese markets will, for example, have important liquidity advantages over many foreign exchanges when it comes to listing Chinese firms because Chinese investors may know the firms better than international investors and because shares can be traded simultaneously with the dissemination of information about a Chinese firm's financial well-being.

the preferences of their customers, the listing companies.[211] This alignment of the interests of issuers and exchanges would then spur regulators to compete directly with one another for the provision of issuer-friendly securities laws.[212]

This presumption of regulatory competition does not, however, take fully into account profound changes in exchange microstructure that introduce significant liquidity considerations that may inform an exchange's choice of law. Perhaps most important, exchange choice provides a mechanism for exchanges to develop private markets in ways that promote the cross-border trading of securities through regulatory convergence. In short, choices might be based not so much on issuers' legal preferences but instead on strategic liquidity-related concerns. Though one exchange may have a majority of listed companies that prefer one set of regulatory standards, the exchange might nevertheless adopt the regime governing a foreign affiliate (perhaps in light of the perceived preferences of the issuers operating on that exchange) in order to allow shares on both exchanges to be cross-traded and enhance liquidity. Such strategic decisionmaking could result in diminished costs for issuers and thereby provide net welfare gains for listed companies. It would not, however, ensure the survival of the most attractive legal regime for issuers.[213]

Two important theoretical observations emerge from this (not implausible) scenario.[214] First, even where exchanges have a "choice" of governing law, and their decisionmaking would ostensibly serve to pit one regulator against another, liquidity may still arise as an important factor informing the decisionmaking and legal choice of exchanges. Second, the nature of global competition suggests that in some ways exchange choice could lead to *less* regulatory competition than is now underway. To the extent that exchanges are able to enhance their liquidity in ways that overwhelm the regulatory advantages of competitors, exchange choice reduces the importance of law and thereby regulatory competition. And by adopting a liquidity-based strategy of legal convergence, the effective number of viable regulato-

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211 See Warner, 55 L & Contemp Probs at 22 n 90 (cited in note 209).

212 This thinking is advanced not only in the issuer choice literature but is also supported by many scholars in the broader literature on exchange regulation. See, for example, Mahoney, 83 Va L Rev at 1454–55 (cited in note 27).

213 Issuers, too, may have bundled preferences not entirely based on the law. They may choose law based on similar network effects. Simply put, if other issuers are using a particular legal regime, they may opt for it in order to increase transparency and decrease costs for analysts and investment banks and therefore increase the attractiveness of the security. Still, their preferences should be purer than those of exchanges since issuers face a wider range possible benefits.

214 International expansion is, at least currently, a highly attractive organizational option. The basis of such activity involves harnessing liquidity and deepening capital markets. See Part III.A.

ry options in the world would likely diminish, again not necessarily due to a regulatory competition in which the most attractive regimes would survive.

2. Substituted compliance.

Substituted compliance, in contrast to exchange choice, envisions regulatory competition arising among those countries with securities laws deemed to be in substantial compliance with those of the United States.[215] Because listed companies on one exchange would have access to investors in other countries and be able to solicit them, substituted compliance elides some liquidity distortions. Participating exchanges would not have to worry about the choices of affiliates. Instead, they could adopt those rules that best fit the needs of listed firms.

Nevertheless, liquidity still has an enormous effect on the first-order decisionmaking as to whether to participate in the US-led program. The preferential access made possible under substituted compliance incentivizes regulators, and their respective exchanges, to change their standards. And conversely, substituted compliance punishes nonparticipants insofar as firms operating in participating jurisdictions enjoy reduced costs of capital and thereby key competitive advantages over their nonparticipating counterparts. Thus as the number of participants grows, and the number of exchanges and firms enjoying preferential access to US investors increases, so potentially will the pressure on nonparticipants to respond by changing their standards and opting into the program.[216] Liquidity thus remains an important factor shaping the provision of securities laws.

From a practical standpoint, the degree to which substituted compliance creates regulatory competition will depend on the degree to which difference is permitted among countries participating in the mutual recognition program.[217] If substituted compliance is interpreted and applied liberally, greater regulatory heterogeneity will emerge

215 See Tafara and Peterson, 48 Harv Intl L J at 32 (cited in note 34) (proposing waiver of SEC registration requirements when foreign exchanges comply with substantially comparable regulatory regimes that share "extensive enforcement- and supervisory-related information" with the SEC).

216 Though the advocates of substituted compliance view regulatory competition as a positive phenomenon, they themselves readily acknowledge the pressure substituted compliance imposes on nonparticipants. See, for example, id at 56–57 (noting that substituted compliance would "permit the U.S. and other countries with similar regulatory philosophies to leverage their regulatory strength" by restricting access to the crossborder market to substantially compliant jurisdictions). They view the "size of the U.S. capital market" as a major factor in encouraging "other regimes to adopt high regulatory standards." Id at 56.

217 Indeed, the quality of jurisdictions may vary widely. See Howell E. Jackson, Commentary, *A System of Selective Compliance*, 48 Harv Intl L J 105, 114–15 (2007).

amongst participants as issuers are able to adopt substantively different rules. Thus in such circumstances, even where countries are pressured to join an alliance of securities regulators, countries in the network may still face substantial pressures to make sure their home-state laws are attractive to issuers.

The key theoretical insight is, of course, that depending on its implementation, substituted compliance may in fact diminish the amount of regulatory competition underway. As with exchange choice, substituted compliance creates incentives for regulators to adopt rules not only because of their regulatory attractiveness but also—and perhaps more importantly—to exploit markets of scale. Thus where the degree of difference permitted between the United States and other recognized regimes is small, the tight regulatory "spread" may have a homogenizing effect on the regulatory practices of participants.

3. Issuer choice.

Issuer choice largely escapes the distortive effects of market liquidity by decoupling exchange liquidity from the legal considerations of an issuer's choice of jurisdiction. In contrast to exchange choice, substituted compliance, and the new markets, the size and scale of a market no longer inform the regulatory choice of firms. Instead, issuers are able to trade on any market with the rules they select. This direct nexus between issuer choice and regulation forces regulators to internalize directly the unattractiveness of the laws they promulgate.[218] If a regulator fails to provide attractive rules, firms will register and list elsewhere; the jurisdiction it governs will in turn lose transactions and registration fees, along with the indirect benefits that accrue to financial services representatives.[219]

It is important to note, however, that other factors may inform (and thus distort) an issuer's choice of regime. For example, the cost of legal and financial counsel could very much affect whether a country opts into a particular regime. If one jurisdiction's legal services professionals charge more than others, thereby increasing the costs of compliance with a regulatory regime, that jurisdiction will be a less attractive venue for securities transactions, all else being equal. Path depen-

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218 See Stephen J. Choi, *Promoting Issuer Choice in Securities Regulation*, 41 Va J Intl L 815, 821–22 (2001) (arguing regulators will have an incentive to compete in an issuer choice framework because the per-issuer cost of enforcement and regulation decreases as the number of issuers in the framework increases, which makes the framework more attractive to future issuers); Mahoney, 83 Va L Rev at 1459 (cited in note 27) (arguing that exchanges, as regulators, should choose optimal regulatory rules when ample alternative regimes are available).

219 See Choi, 41 Va J Intl L at 821–22 (cited in note 218); Mahoney, 83 Va L Rev at 1458–59 (cited in note 27).

dency may also inform the choices of firms.[220] Some issuers may choose a regime because it is popular, as opposed to efficient, or because significant resources have been spent mastering a particular set of rules.[221] Businesses may also congregate around certain regimes, not because they are efficient, but because they lend predictability in terms of compliance and the behavior of other market participants.[222]

These shortcomings do not, however, negatively distinguish other regulatory alternatives, including the new markets, from issuer choice. The cost of financial services will inform the decisions of prospective issuers in both the exchange-based legal regimes as well as in the new markets for securities laws. And even though capital is more widely available as markets become more liquid, path dependency will still persist and inform issuer decisionmaking.

As a result, issuer choice still presents key advantages over the new markets. Though subject to a range of possible market distortions, it escapes the externalities that are potentially the largest—that is, those distortions generated by market liquidity and size. Thus in this light, issuer choice still represents a systemically purer means of achieving regulatory competition than even the new markets for law. Unlike the new private and public markets—where liquidity continues to inform, at least in part, the cost-benefit analysis of firms opting into a particular regulatory regime—here regulators compete solely on the basis of the attractiveness of their laws to firms and their management. Issuer choice thus creates a purer regulatory market for securities laws.

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220 Indeed, empirical evidence already suggests that firms often make disclosures based on what similarly situated firms have done before them. See Stephen J. Choi, *Law, Finance, and Path Dependence: Developing Strong Securities Markets*, 80 Tex L Rev 1657, 1720–22 (2002) (discussing a study of European firms that indicated firms chose higher levels of disclosure than the law mandated because it was the norm). For example, if a steel concern in Germany makes public a detailed account of its political relationship with the governments of countries from which it receives supplies, subsequent steel producers may feel required to do the same in order to receive the same level of financing. This path dependency in the disclosure context would likely emerge in the choice-of-law context as well.

221 Guzman and Choi downplay this possibility and suggest that large institutional investors will find it cost-efficient to utilize legal intermediaries to learn the laws of different countries, though small investors may not. See Choi and Guzman, 71 S Cal L Rev at 934–38 (cited in note 11) (arguing that small capital markets are also likely to adopt only incremental changes from the laws of large capital markets, thus significantly reducing any learning costs). This claim, however, has not been tested empirically.

222 See, for example, Anita Indira Anand and Peter Charles Klein, *Inefficiency and Path Dependency in Canada's Securities Regulatory System: Towards a Reform Agenda*, 42 Can Bus L J 41, 55 (2005) (asserting that the development of jurisprudence and historical constraints have rendered Canadian securities law path-dependent on an inefficient system). Investors may, as a result, choose to specialize in only a handful of regulatory regimes.

C. How Second Best Could Still Be Second to None

Based on the above discussion, one might conclude that issuer choice leads to regulatory outcomes that differ dramatically from those spurred in the new markets. After all, issuer choice decouples law from markets in a cleaner way than the new markets in which liquidity continues to inform issuer decisionmaking, though to a diminishing degree. It is critical to note, however, that although issuer choice may create a purer regulatory market, it does not necessarily follow that the degree of competition arising in the new market will be less intense than that postulated where issuers have choice. Furthermore, there are important reasons to believe that the regulatory outcomes in the new market may be similar to those envisioned in the issuer choice literature.

As a matter of predictive theory, issuer choice and the new markets will depart most from one another, in terms of their regulatory outcomes, where an issuer must choose between a highly liquid exchange governed by unattractive rules and a less liquid exchange governed by a more user-friendly regime. Where, for example, an international firm from China must choose between listing on the NYSE and the Nairobi Stock Exchange (NSE), the liquidity of the NYSE would, even in the new markets, overwhelm any advantages offered by the NSE. Even if the NSE offered extremely attractive regulatory rules and supervision, a large international Asian firm would still likely list in the United States due to the relative illiquidity of the Kenyan exchange. Thus, the United States under these circumstances would not have to change its rules materially in order to attract listings.

On the other hand, under the issuer choice regime, the firm could choose Kenyan rules to govern the transaction and list the securities on the NYSE. As a result, Kenyan and US regulators would still have to compete directly with one another for listings, even though one regulator's home market may be much larger than that of the other. Thus in this light, issuer choice reveals itself as generating more regulatory competition than the existing regulatory markets for law.

A field of only two highly asymmetric competitors is, however, highly unrealistic. The number of credible markets for international listing and trading has grown substantially as electronic trading has more widely distributed capital and leveled liquidity disparities. Thus in making its listing decision, a firm will not only choose between US and Kenyan markets but also other markets. This is important because in a multiplayer context, where at least two regulators have credible home-market liquidity, the regulatory outcome will be much different than that in the scenario sketched above.

To demonstrate, consider the dynamics where a third player, the highly liquid LSE, along with the NYSE and the NSE, is looking to

attract the Chinese listing. Assume that listing on the NYSE, because of the high liquidity of the market, will increase the value of a share in the company by $10, and that the value of the regulatory regime contributes $3 to the price of a share. Meanwhile suppose that the LSE provides liquidity advantages of $8, and the regulatory regime contributes $5. Under such a scenario, the Chinese multinational can raise capital in either the United Kingdom or the United States, and US regulators will be incentivized, assuming enough transactions are lost, to provide more attractive securities laws that provide at least $1 of additional value to issuers.[223]

Once US regulators provide more attractive rules, UK regulators will themselves be incentivized to provide an additional $1 in value in their regulatory regime, thereby touching off a kind of regulatory bidding dynamic between the regulators. Each regulator, in short, will find it in its interest to outbid the other to provide the most attractive listing rules possible, assuming both view the marginal gain of such reforms as outweighing the costs of competition and reform. Kenyan authorities would likely play an insignificant role in the regulatory jostling given the limitations of their home market.[224] Nevertheless, the outcome of this bidding process could, if competitive enough, over time approach that of the attractive, ideal rules provided in principle by the Kenyan regulators.[225] In such a scenario, the regimes available to issuers would be comparable to those offered under issuer choice, provided regulatory benefits afforded to foreign firms ultimately are shared with domestically domiciled companies.

This insight suggests that, from a practical standpoint, *who* is competing may be as important as the actual number of competitors. Where a firm can choose between a large market and small markets, it will generally list on the larger market. In such circumstances, the regulator of the larger market has little incentive to reform its laws. Where, on the other hand, other financial centers have comparable liquidity, countries have strong incentives to compete. Moreover, the dynamics of this competition

223 This is obviously a very crude example and it is quite likely that either liquidity or regulation could have a negative impact on share price. The numbers are used here, however, for illustrative purposes only.

224 Kenyan regulators may, however, still find powerful incentives to compete for a smaller swath of the market, namely local firms that may not qualify for listing overseas or those firms that may nonetheless find financing easier in Kenya given their local name recognition and connections to the domestic business community.

225 Obviously, the above hypothetical reflects a favorable race to the top envisioned by supporters of regulatory competition. However, one can envision other kinds of bidding, discussed at length in the literature, where in fact the nature of the bidding will be made in terms of the benefits managers can secure by opting into a particular kind of regime. The theoretical point, however, is not that the normative outcome of competition is preferable, but instead that regulators are incentivized to compete—even where markets are not at complete parity in terms of liquidity.

may generate regulatory outcomes that mirror those generated under regimes of issuer choice, even though the number of players competing will likely be fewer than those participating under issuer choice.

D. Descriptive Implications and Pathways for Future Research

Although these insights provide no definitive answer as to the optimality of regulatory competition, they nonetheless hold important normative implications for the choice-of-law debate. Ultimately, this Article has shown that, despite liquidity externalities, regulators currently face pressure to provide attractive laws for increasingly mobile issuers. And insofar as innovations in exchange microstructure create more parity among markets, regulators will have to compete more with one another for securities transactions and market participants. This competition furthermore will have possible spillovers for less-mobile domestic companies demanding equal treatment from regulators.

For the longstanding debate on choice of law in securities regulation, this means that the regulatory dynamics criticized by advocates of investor choice a decade ago are not the same ones that characterize the current provision of securities laws. National governments no longer monopolize regulation to the same extent as before, and the provision of law has become a more competitive activity. This development, largely overlooked in the literature, has important implications for the choice-of-law debate insofar as it suggests that the marginal costs (or marginal benefits) derived from any prior reform proposal will be less than the authors of such reforms anticipate.

Where, for example, scholars like Roberta Romano assert that the implementation of issuer choice will set off a race to the top,[226] the value gained from such proposals, assuming they could be implemented and would indeed lead to a race to the top, will be less than Romano anticipates. That is, the marginal increase, the difference between the responsiveness of regulators before and after the implementation of the policy program, will be less than that long-assumed, since regulatory competition already exists—even where one presumes that liquidity externalities are significant and distort the incentives of regulators. How much less would be in large part a matter of the competitiveness of the existing regulatory market. It would also, of course, depend on the regulatory spillovers for domestic issuers.

Similarly, assuming choice-of-law reforms lead to a dismantling of regulatory standards, and that such a dismantling was suboptimal, a race to the bottom would not necessarily depart dramatically from what

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226 See Romano, 107 Yale L J at 2426–27 (cited in note 1).

one may expect should the progression of the new markets for private and public law continue. In economic terms, the marginal loss in welfare or value will be less than that which critics assert in the now extensive literature critiquing, in particular, issuer choice proposals. Again, how much less is in large part a matter of domestic spillovers and the competitiveness of the existing regulatory market. In short, the more the competition, the more (positive) improvement one would see in the quality of securities laws.

Beyond these key theoretical interventions, the competitiveness of the new markets also touches upon core assumptions concerning the very nature of state and national regulation that have long guided theoreticians and policymakers alike. As demonstrated above, federalism is largely viewed as an organizational structure driving states to compete for charters. By contrast, federalization, which occurs when the federal government promulgates law, is viewed as preempting state-level competition. Consequently, scholars who believe that regulatory competition promotes the provision of efficient laws have long railed against federal securities statutes that nationalize elements of traditional (state) corporate law. Meanwhile, other scholars have lauded preemptive securities regulation arguing that federal intervention prevents the dismantling of regulatory standards and a race to the bottom. Yet the identification of a vigorous market for securities laws suggests a need for both sides to reevaluate how federalism does (or does not) achieve their policy objectives. Indeed, it is possible that federalization will not only serve as a weaker counterweight to state competition than many scholars have assumed, but it may also, in some ways, even promote competition.[227]

Finally, the identification of new markets for securities law provides new opportunities for not only descriptive interventions but empirical work as well. As mentioned above, the fundamental issue concerning the desirability of regulatory competition remains largely unanswered, in part because it is viewed as a largely hypothetical dynamic. Thus up to this point, the only empirical forays into the desirability of regulatory competition have centered either on cross-listings, where firms have the option of listing their securities in multiple markets, or on the European Union, which through a mutual recognition scheme allows issuers effectively to select a securities law regime from those offered by member states.[228] However, both of these approaches have important limitations. Cross-listings, on the one hand, are only able to show what can be assumed to be a race to the top since they merely

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227 As an initial investigation of the issue, see generally Chris Brummer, *Corporate Law Preemption in an Age of Global Capital Markets*, 81 S Cal L Rev (forthcoming 2008).

228 See, for example, Howell E. Jackson and Eric J. Pan, *Regulatory Competition in International Securities Markets: Evidence from Europe in 1999—Part I*, 56 ABA Bus Law 653, 661–62 (2001).

demonstrate where states opt for higher regulatory standards. Meanwhile, EU-based approaches are undergirded by unique harmonization procedures and possible geographic biases that may not fully reflect global responses to market pressures.

In light of these limitations, further empirical study of global capital and its impact on the provision of law offers new opportunities to assess the impact of regulatory competition. Regulatory competition need no longer be envisioned as a hypothetical occurrence but can instead be framed as a dynamic informing rulemaking. As a result, the identification of new markets provides a theoretical basis with which scholars can observe the provision of securities laws, particularly concerning foreign private issuers, as at least in part informed by an increasingly significant form of international regulatory competition. Thus if critics of regulatory competition are correct about a race to the bottom, and assuming overseas financial markets continue to grow and attract capital and issuers, one should see, over time, a fundamental dismantling of even beneficial regulatory standards by jurisdictions seeking to compete. On the other hand, if regulatory competition creates a race to the top, another dynamic should begin to emerge in which regulators will either coalesce around a singular set of rules that balance cost and efficiency or segment the market for securities laws and cater to diverse issuer preferences. Domestic spillovers, as well as the overall desirability of regulatory competition, then could be identified and assessed.

CONCLUSION

This Article has demonstrated that innovation in the microstructure of stock exchanges is not only increasing the reach and depth of foreign markets, but it is also, by extension, heightening the mobility of many issuers as well as the importance of regulation in the listing decisions of firms. In doing so, the evolution of stock exchanges has helped spur competition among regulators in ways unanticipated in the literature and in the process has facilitated the creation of new markets for securities laws.

These new markets, though subject to a range of supply-side distortions, will likely create more competition among regulators than some reform proposals that seek to give stock exchanges a choice as to what laws should govern their trading systems and the transactions that take place on them. The new markets may also, surprisingly, result in regulatory outcomes that are similar to those of longstanding issuer choice proposals allowing issuers to choose the laws and rules governing their securities transactions. As a result, the new markets not only challenge the prevailing descriptive theory and provide the basis for key theoretical interventions, but they also offer new opportunities to explore empirically the optimality of regulatory competition in securities law.