

Variation in the Intensity of Financial Regulation: Preliminary Evidence and Potential Implications

Howell E. Jackson[†]

How intensively should financial markets be regulated? Given the talk of regulatory convergence in financial markets, one would think that this is a question on which there would be a robust academic literature with clear implications as to how a particular jurisdiction should go about determining its optimal level of financial regulation. As it turns out, no such literature or guidance exists. This Article begins with a discussion of the considerable difficulties of conducting a theoretically complete analysis of the costs and benefits of financial regulation, as well as the problems associated with making international comparisons between observed levels of the intensity of financial regulation. Notwithstanding these difficulties, I next present preliminary data about the direct regulatory costs of financial regulation in the United States and offer some tentative international comparisons. Even after adjusting for the size of U.S. financial markets, the direct costs of financial regulation in the United States are substantially higher than the costs observed in most other jurisdictions, in some cases as much as an order of magnitude higher. Moreover, common law jurisdictions seem to incur substantially higher direct regulatory costs than do civil law jurisdictions. I also present additional evidence about the level of enforcement activity in U.S. securities markets, reporting data on both public and private securities enforcement actions in recent years. Compared to at least the United Kingdom and Germany, the intensity of securities enforcement actions in the United States appears to be strikingly higher. Not only are there more financial regulators in the United States, but they also carry bigger sticks than their foreign counterparts. While the laws on the books may be converging, the level of enforcement efforts seems to vary widely across national boundaries and even within regions such as Europe. The Article concludes with some thoughts about additional lines of research in this area and the implications of this data for the ongoing debate over regulatory convergence.

[†] John S. Reid, Jr., Professor of Law, Harvard Law School. This Article has benefited from helpful suggestions from Laura Beny, Brian Cheffins, Jack Coffee, Eilis Ferran, Elizabeth Foote, Louis Kaplow, Mark Roe, Erik Sirri, and participants at a conference on the Transatlantic Dialogue on Financial Services Regulation held at Cambridge University in the Fall of 2005. I received support for research on this Article from the John M. Olin Center for Law, Economics and Business at Harvard Law School. Special thanks to my research assistants at Harvard Law School who helped compile the data and, in particular, to Jean-Denis Greze (J.D. 2007); Vessy Haralampieva (L.L.M. 2005); Ben Koplin (J.D. 2006); Julia Luebke (L.L.M. 2005); Joseph Martin (J.D. 2002); and Sava Savov (J.D. 2006).

Introduction.....254

I. The Challenge of Measuring the Costs and Benefits of Financial Regulation257

 A. *Difficulties in Measuring the Benefits of Financial Regulation*258

 B. *Difficulties in Measuring the Costs of Financial Regulation*260

 C. *Sanctions, Fees, and Transfer Payments*262

 D. *The Promise of Comparative Cost-Benefit Analysis*263

II. Evidence of Variations in Regulatory Effort and Enforcement Intensity.....265

 A. *Regulatory Budgets and Personnel Levels*266

 1. The Regulatory Budgets and Staffing Levels in the United States.....266

 2. Comparative Analysis Using Data from Financial Services Authority.....267

 3. Further Extensions with Central Banking Publications Survey.....274

 B. *Securities Enforcement*.....278

 1. The U.S. Baseline279

 2. Two Preliminary Comparisons: The United Kingdom and Germany281

III. Concluding Remarks and Potential Future Lines of Inquiry286

 A. *Competing Hypotheses Regarding Variation*286

 B. *Exploring the Relationship Between Costs and Benefits*287

 C. *Living with Under-Theorized Benchmarks*288

Appendix.....290

Introduction

Several years ago, when I was giving a talk in South Korea on financial reform, I was asked a question that I found difficult to answer: How many people should South Korea’s new Financial Services Authority hire to oversee the country’s financial services industry? As a conceptual matter, the answer was clear. The government should hire staff until the marginal benefit to be derived from additional employment exceeded marginal cost. A number of related theoretical guidelines also sprang to mind. In selecting among regulatory tools, including hiring decisions, the government should select the most cost-effective combination of regulatory mechanisms given the country’s endowments of technology, capital, and labor. It should also consider the possibilities of self-regulation at the industry and firm level as well as the

capacity of market mechanisms to police certain activities more efficiently than government oversight. Finally, within federal systems, the government should ascertain a proper allocation of authority between central authorities and local institutions. All quite true in theory, but not exactly the kind of answer my interlocutor was seeking. He was looking for an answer like a staff of 100, or 1000, or 10,000.

Since this exchange, I have spent a reasonable amount of effort trying to come up with a more helpful response to what appears to be a perfectly reasonable question. In a modern economy, what level of regulatory intensity is appropriate for the financial services industry? Upon reflection, I have concluded that this question is genuinely difficult to answer. The benefits of financial regulation are multi-faceted and likely vary across jurisdictions. Even once specified, many of these benefits are difficult to measure. Regulatory costs are somewhat easier to define but also difficult to measure. It is, moreover, quite plausible that the efficacy of comparable regulations may be dramatically different in different jurisdictions, both because of variation in enforcement efforts across jurisdictions and because of variation in private responses to public mandates. Thus, the task of comparing marginal costs to marginal benefits in the field of financial regulation may be fundamentally intractable, and international comparisons of the sort implicit in such concepts as “regulatory convergence” may be highly problematic.

In grappling with this problem, I have developed empirical evidence of potential interest to both my South Korean inquisitor and perhaps also a broader academic audience.¹ If one focuses on financial regulatory costs that can be measured objectively and compared across jurisdictions, there is a surprising heterogeneity across national regulatory systems. Whether measured in terms of regulatory budgets or enforcement efforts, regulatory intensity varies widely across jurisdictions. The United States, for example, spent nearly \$6 billion on financial regulation in 2004 and employed more than 43,000 staff members, which is equivalent to 133 staff members for every million people in the population. Other well-regarded jurisdictions such as the United Kingdom, for example, maintain regulatory staffing and budgets at substantially lower

1 I have extended the data and analysis presented in this paper in Howell E. Jackson, *Regulatory Intensity in the Regulation of Capital Markets: A Preliminary Comparison of Canadian and U.S. Approaches* (July 30, 2006), available at [http://www.tfmsl.ca/docs/V6\(2\)%20Jackson.pdf](http://www.tfmsl.ca/docs/V6(2)%20Jackson.pdf) [hereinafter Jackson, Canadian Study] and Howell E. Jackson & Mark J. Roe, *Public Enforcement of Securities Laws: Preliminary Evidence* (Mar. 9, 2007) (unpublished draft, on file with author). For additional interpretations of the data presented in this article, see Mark J. Roe, *Legal Origins, Politics, and Modern Stock Markets*, 120 HARV. L. REV. 460 (2006). For differing views of the implications of my data, compare COMM. ON CAPITAL MARKETS REGULATION, INTERIM REPORT OF THE COMMITTEE ON CAPITAL MARKETS REGULATION 71-92 (Nov. 30, 2006), available at http://www.capmktreg.org/pdfs/11.30Committee_Interim_ReportREV2.pdf (suggesting that the high level of regulatory intensity in the United States disadvantages U.S. markets), with John C. Coffee, *Law and the Market: The Impact of Enforcement* (Mar. 7, 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=967482 (interpreting enforcement intensity as the hidden variable that explains the success of U.S. markets).

levels. Some developed countries such as France and Germany have budgets and staff that are less than a quarter of the U.S. levels, once one adjusts for economy and population sizes.

To be sure, there are considerable difficulties in making meaningful comparisons across countries of different sizes with different kinds of financial markets, not to mention the complexities of fluctuating exchange rates and differentials in wages. But the variations are so striking that I am convinced that genuinely different levels of regulatory intensity exist. These variations, moreover, are not exactly in the predicted direction. In particular, the common law countries—the United States, United Kingdom, and countries formerly connected to the British Empire—report markedly higher levels of regulatory intensity on all dimensions I have studied. While many observers associate the civil law regimes with legal rigidity and bureaucratic ossification, the indicia on regulatory intensity in financial areas suggest that it is the common law countries that carry the bigger sticks and swing them with greater frequency and force.

Differentials in regulatory intensity are even more striking if one looks to enforcement activities, as opposed to regulatory inputs such as budgets and staffing. Between 2002 and 2004, U.S. regulatory bodies charged with overseeing our securities markets brought, on average, 3,624 actions per year, imposing in excess of \$5 billion in sanctions. In addition, U.S. private parties generated 2,824 actions per year in the form of both class action lawsuits and securities arbitration proceedings, resulting in at least \$3.5 billion of additional damage awards per year during the period. Though it is difficult to obtain comparable data from other jurisdictions, the available evidence suggests that formal enforcement activity of this sort is often at least an order of magnitude lower.

Suppose there are substantial differences in regulatory intensity across jurisdictions. What effect do such differences have? In the first instance, there is a question of whether increased regulatory intensity translates into net benefits for society. In some contexts, such as kleptocracies, where the primary function of public authority is to extract wealth from the public, regulatory intensity might be counterproductive. Even in more benign settings where governmental efforts are simply ineffectual, increased regulatory intensity may do little good in and of itself, while negatively impacting other activities through what amounts to a high regulatory tax on financial activities. In some, perhaps many, domains, however, regulatory intensity may be associated with public benefits, and indeed there is some recent empirical evidence to support this proposition, albeit in extremely narrow areas of financial regulation.

In part, the dearth of empirical evidence about the relationship between regulatory intensity and public benefit is related to the fact that it is difficult to measure the public benefit of financial regulation. Only in a few areas (such as the regulation of insider trading) are objective indicia of regulatory efficacy susceptible to measurement and comparative analysis. The lack of good

empirical studies of the relationship between regulatory costs and benefits is compounded by the fact that the empirical work requires collection of relevant and comparable data from a large enough sample of jurisdictions. Over time, support from regulators and multilateral organizations could correct this defect and lead to better understanding of the relationship between regulatory intensity and social benefits in the future.

In the meantime, useful guidance available to my South Korean questioner is limited. For most areas of financial regulation, we cannot now estimate with any degree of precision the predicted social benefit of increases in regulatory intensity or other regulatory inputs. A fortiori, we cannot make empirically validated estimates of the likely benefits in particular institutional settings that distinguish one country from another. What we can currently offer are gross comparisons of regulatory intensity across a reasonably large sample of countries. These measures offer a crude yardstick for self-assessment. Countries with indices of regulatory intensity well above or well below these transnational benchmarks may well pause to consider whether their deviations from international standards are justified by local conditions. Eventually we may be able to offer more firmly-grounded advice about optimal levels of regulatory intensity, but for now crude guidance appears to be the best we can do.

I. The Challenge of Measuring the Costs and Benefits of Financial Regulation

Although cost-benefit analysis (CBA) is a staple of the modern regulatory state, the methodology is unevenly applied. In the United States, most serious cost-benefit analysis is conducted in the area of environmental or health regulations, and the principal tradeoff explored is between the costs of some new technology (e.g., pollution control equipment) measured against predicted benefits in terms of lives saved or diseases avoided. To be sure, even these applications of cost-benefit analysis generate ample debates and disagreements, including those regarding the value of human life, appropriate discounting of future savings, and estimates of plant conversion costs. What is striking about the cost-benefit debate in the United States is how little of the attention has been directed to financial regulations.

A number of factors appear to explain this lack of attention. First, the agency principally responsible for cost-benefit analysis in the United States is the Office of Management and Budget (OMB), which for many years has required cost-benefit analysis for rulemaking proposals of many federal agencies and departments. These OMB requirements do not, however, extend to independent agencies such as the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), nor do they apply to the Federal Reserve Board, the Federal Deposit Insurance Corporation (FDIC), or the many state agencies involved in overseeing the financial

services industry. While some federal agencies with jurisdiction over certain aspects of financial regulation are subject to OMB oversight (e.g., the Comptroller of the Currency and the Department of Housing and Urban Development) relatively little attention has been given to the manner in which these agencies conduct their cost-benefit analyses. The OMB appears not to give financial regulatory proposals the same degree of review that it imposes on other proposals from organizations such as the EPA.²

A. *Difficulties in Measuring the Benefits of Financial Regulation*

Another reason why cost-benefit analysis for the financial services industry is relatively underdeveloped is that the undertaking is difficult, perhaps even intractable, particularly on the benefit side. In considering whether it might be possible to ascertain whether officials at the U.K. Financial Services Authority (FSA) were achieving the goals assigned to them by Parliament, Professor Charles Goodhart of the London School of Economics has opined: “[I]t is difficult to come to any other conclusion except that the achievement of the objectives which have been set for the FSA are non-operational in the sense that no measurement of success can be achieved.”³ The same might be said of the efforts to measure the realized benefits from financial services regulation in the United States.

Several years ago, I attempted to summarize the goals of financial services regulation in the United States.⁴ At the time I contended that regulatory intervention in this field was designed to produce four distinct social benefits, with the relative importance of the benefits varying somewhat across different sectors of the industry:

1. *Protection of General Public.* In certain contexts, this goal is defined as the achievement of the level of protection that fully informed and fully rational investors, depositors, and insurance policy holders would choose for themselves; a hypothetical contract approach to regulation. Other times, this objective is cast in a more paternalistic light, imposing absolute protection on the general public without regard to their preferences.

2. *Elimination of Negative Externalities from Financial Failures.* The most prominent sort of negative externality is the elimination of systemic shocks to the economy that financial crises could precipitate. A variant of this objective is the elimination of the costs that society would bear if members of

2 For additional background on cost-benefit analysis in U.S. financial regulation, see Edward Sherwin, *The Cost-Benefit Analysis of Financial Regulation: Lessons from the SEC's Stalled Mutual Fund Reform Effort*, 12 STAN. J.L. BUS. & FIN. 1 (2006). See also David Simpson et al., *Some Cost-Benefit Issues in Financial Regulation* (Fin. Servs. Auth. Occasional Paper No. 12, 2000).

3 Charles A.E. Goodhart, *Regulating the Regulator—An Economist's Perspective on Accountability and Control*, in REGULATING FINANCIAL SERVICES AND MARKETS IN THE TWENTY FIRST CENTURY 151, 153 (Eilís Ferran & Charles A.E. Goodhart eds., 2001).

4 Howell E. Jackson, *Regulation in a Multisectoral Financial Services Industry: An Exploratory Essay*, 77 WASH. U. L.Q. 319 (1999).

the general public suffered losses from financial institution failures and then demanded *ex post* compensation from public resources.

3. *Advancing Various Equitable and Redistributive Goals.* Though present in a smaller share of financial regulations than the preceding two objectives, equitable and redistributive objectives are undoubtedly present in some areas of U.S. financial services regulation. In banking, for example, some regulations steer lending into particular markets to enhance economic development or to promote certain activities; in insurance regulation, some degree of cross-subsidization between insurance pools is mandated to advance social goals independent of (and sometimes at odds with) solvency concerns.

4. *Promoting Certain Aspects of Political Economy.* Finally, some aspects of financial regulation reflect political compromises. Longstanding barriers to the geographic expansion of banks are one good example, but so are restrictions on commercial activities of financial holding companies and certain aspects of SEC capital market regulation.

Since September 11th, one might add the elimination of financial crime and international terrorism as a separate goal, or one might expand the third category to include these objectives.

How would one quantify the success of a regulatory agency in achieving these objectives? Even the most straightforward goal of consumer protection presents enormous complexities. To the extent one is attempting to replicate the hypothetical contracts consumers would choose under conditions of perfect information and rationality, how does one determine what the contract would be? And for which consumer: the median individual or some other individual or groups of individuals? Moreover, even if one specified the appropriate level of protection to achieve, how does one measure the benefit of moving consumers from some (presumably) lower level of protection to a higher level of protection? Measuring losses avoided is one possibility, but it is probably over-inclusive because consumers are called upon to pay some cost for this protection, such as lower interest payments. In theory one might have to estimate the overall utility of consumers in the absence of regulation and their overall utility with regulation, but then one would have to convert utility improvements into some monetary value. And if absolute protection is the social objective, consumer utility is probably not the right metric to use because paternalistic interventions of this sort necessarily override individual choices and measures of utility based on purely individual preferences.⁵

5 Another approach would be to focus on intermediate measures of regulatory efficacy, such as the cost of capital, or technical measures of stock market performance, such as bid-ask spreads or stock price synchronicity. Alternatively, one might consider proxies for effective regulation, such as the number of foreign investors choosing to enter domestic markets, or conversely, the number of foreign firms that seek to raise capital overseas. While the expected impact of effective regulation on these alternative measures is fairly clear, it is not obvious how to convert such effects into quantifiable benefits that can be compared to regulatory costs.

Benefits from the elimination of externalities are, if anything, more difficult to measure. Systemic risks are low-probability, high-impact events. Regulatory interventions, in theory, have the potential to reduce the probability of these events and also diminish their severity. But how effective any particular intervention is on these two dimensions is difficult to tell. It requires information about a counterfactual situation: How likely is it that a systemic shock would have occurred in the absence of regulatory intervention, and how severe would the shock have been in an unregulated environment? Even *ex post*, the absence of systemic shocks does not provide particularly valuable information about the benefits of regulatory intervention because shocks may also not have occurred in the absence of regulation.⁶

Equitable, redistributive, and political objectives are even less susceptible to quantification as they do not translate easily into monetary values. For example, the benefits of preventing insurance companies from charging different rates to men and women for life insurance or forbidding any bank holding company from controlling more than ten percent of the nation's deposits may be real and substantial. But they are hard to quantify for purposes of cost-benefit analysis.

B. *Difficulties in Measuring the Costs of Financial Regulation*

The costs of financial regulation are somewhat more susceptible to measurement. Perhaps most quantifiable is the direct cost of regulatory agencies: salaries paid to supervisory officials and other operating expenses associated with maintaining governmental operations. Although analysts face certain impediments to the collection of this data—government agencies are not always forthcoming about their budgets, and occasionally one faces difficulties in allocating costs when a ministry combines supervisory functions with other government services—direct government costs of maintaining a supervisory force are relatively easy to maintain, and they form the basis of much of the empirical evidence presented below.

The private costs of regulation, in contrast, are more difficult to ascertain. The most obvious private cost of financial regulation is the cost of compliance which members of the regulated industry incur in hiring compliance staff and assigning personnel to fill out forms and structure operations so as to conform to regulatory standards. For example, some fraction of the costs associated with the general counsel's office of financial institutions likely qualifies as a regulatory cost. Proper cost allocation is, however, also a problem in this

6 If a reduction in financial crime were added as a regulatory objective, similar problems of measurement would arise. And indeed, the problem of measuring benefits from crime prevention is analogous in many respects to the problem of measuring benefits from financial regulation discussed in the main text. *See, e.g.,* Darryl K. Brown, *Cost-Benefit Analysis in Criminal Law*, 92 CAL. L. REV. 323 (2004) (exploring the application of cost-benefit analysis in the field of criminal justice).

context. Not everything that a bank's counsel does is a product of regulation. Even in the absence of regulatory requirements, banks would spend some resources on hiring attorneys to negotiate contracts with customers and monitor the activity of bank employees. The true direct costs of regulation are the incremental costs that financial institutions incur beyond the levels of effort they would expend in the absence of regulation. Thus, in this context, one must again deal with counterfactual conjecture regarding the level of costs that the private sector would have willingly assumed in the absence of regulation.⁷

Regulations impose substantial additional costs beyond those borne directly by regulated parties. Often times regulatory regimes employ enforcement mechanisms, including courts and other dispute resolution fora, which incur costs as a result of regulation. In the securities field, for example, the federal judiciary expends considerable resources well beyond the costs borne by the parties to resolve the federal securities cases filed each year. Arbitration systems run by the NASD and NYSE also incur costs, as do the administrative tribunals used to enforce and interpret banking and insurance regulation. Even a non-trivial share of the Supreme Court's time is spent resolving disputes over financial regulation. Since its enactment in 1974, ERISA alone has generated dozens of Supreme Court decisions.

Additionally, private parties incur a variety of indirect costs as a result of financial regulation. In many contexts, such as the regulation of financial privacy, consumers are required to expend effort in order to determine their options under regulatory regimes and may have to expend more effort to obtain financial services by, for example, supplying financial institutions additional information needed to comply with regulatory requirements. More difficult to measure, but probably substantially more important in terms of economic costs, are the transactions that regulatory intervention unintentionally deters. In many contexts, regulations will disrupt some number of transactions that would have been socially desirable but that regulation impeded either through its breadth or through misinterpretation by the private parties. Determining how much of this sort of disruption any particular regulation will generate may be an intractable problem, but there is no doubt that these disruptions constitute another form of regulatory costs.

7 Private industry estimates of regulatory compliance costs are often unreliable, tending to attribute all legal and supervisory costs to regulation and sometimes assuming that transitional compliance costs for new regulations will recur annually. The U.K. Financial Services Authority recently commissioned a series of studies designed to estimate the private costs of regulatory compliance and came up with a rough estimate of 600 million pounds a year, which is nearly two times the agency's annual budget (325 million pounds). See Report of Real Assurance Risk Management, Estimation of FSA Administrative Burdens (June, 2006), available at http://www.fsa.gov.uk/pubs/other/Admin_Burdens_Report_20060621.pdf. See generally Financial Services Authority, Better Regulation Action Plan (Dec., 2005), available at http://www.fsa.gov.uk/pubs/other/better_regulation.pdf.

C. *Sanctions, Fees, and Transfer Payments*

Many payments arise as a result of financial regulation. Some but not all of these qualify as regulatory costs and should be included in any comprehensive cost-benefit analysis for the financial services industry. Others are not true costs but may still be useful measures of regulatory intensity that can influence private responses to regulatory interventions. The types of payments break down as follows:

1. *Monetary Sanctions: Public & Private.* One kind of payment is the civil penalties, fines, and damage awards from private litigation, payments typically made by regulated entities and their employees or agents and paid to the public fisc or to private plaintiffs. While these payments undoubtedly feel like costs to the parties sanctioned, they do not generally qualify as regulatory costs since they represent resources transferred to other parties and can be used for other purposes. One exception to this general proposition comes in civil litigation systems such as the United States, where a fraction of private awards is typically used to compensate plaintiff counsel. In these cases, a fraction of private damage awards might appropriately be classified as a cost of any regulation that created the cause of action under which the suit arose.⁸

2. *Non-Monetary Sanctions.* Non-monetary sanctions may also generate some true regulatory costs. For example, to the extent that injunctions impose compliance costs or excessively disrupt private activity, they generate additional real costs. Censures and penalties that remove individuals from career paths may generate costs through the dissipation of human capital or business opportunities. At the extreme, incarceration can prevent productive employment for the period of incarceration. Resources expended defending against, prosecuting, or adjudicating non-monetary sanctions are all real regulatory costs. Estimating the full economic costs of non-monetary sanctions is difficult, but as an analytical matter such costs should figure into a comprehensive cost-benefit study.

3. *Fees and Other Transfer Payments.* Finally, financial institutions often pay a large number of fees (e.g., registration fees with the SEC or bank examination fees for the Office of the Comptroller of the Currency (OCC)) or premiums (e.g., FDIC insurance premiums). In some cases, these payments are used to finance a regulatory agency. In other contexts, they are turned over to

8 There is a literature estimating the cost of effecting transfer payments through the legal system as a percentage of the amount of transfer payments made. For example, litigation costs might be estimated to consume 40 to 60% of payments made by defendants in the U.S. tort system. *See, e.g., STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW* 281 n.2 (2004). There may well be a stable relationship between overall litigation costs and the level of regulatory sanctions. However, the relationship has not been formally studied and would likely vary across jurisdictions. Some of these costs, such as the costs of hiring government attorneys, are reflected in other measures of regulatory costs that can be obtained directly. But other costs, such as private litigation costs and costs of administering a dispute resolution system, may not be easily measured directly and may be better estimated as a fraction of the sanctions imposed.

the public fisc. For the most part, these fees should not be included in regulatory costs, as they are transfer payments used for other purposes. One might argue, however, that the economic distortions caused by industry fees, like the distortions from other forms of taxation, might be another regulatory cost attributable to financial regulation to the extent those fees are used to finance a regulatory authority.⁹

5. *Interaction Between Sanctions and Other Regulatory Costs.* As explained above, many monetary sanctions imposed on financial institutions are not themselves regulatory costs because these payments are transferred to other parties for other uses. These sanctions are, however, important indicia of regulatory intensity and have an influence on regulatory costs. The larger the level of expected sanctions, the more private parties will likely spend on compliance costs or legal defenses, which are two sources of true regulatory costs. Consequently, if an agency has a practice of rigorous enforcement of regulation, the total regulatory costs associated with the adoption of a regulation by that agency will likely be higher than the regulatory costs of an identical regulation by an agency with a less strenuous enforcement record. So while sanctions may not always themselves be regulatory costs, they are closely intertwined with regulatory costs.

D. *The Promise of Comparative Cost-Benefit Analysis*

Putting aside for a moment the formidable challenges of measuring the costs and benefits in the area of financial regulation, suppose that a country—say, the United States—succeeded in accurately measuring all relevant factors and established an optimal system of financial regulation. With such a system in place, there would be a net loss to that country if its regulatory system expanded or contracted one iota. Could another country sensibly free-ride off the first country's efforts and impose the same level of regulatory intensity with confidence that the decision would, as a first approximation, generate a cost-effective system of financial regulation in the second country? Or, to go back to my South Korean exchange, should a country such as South Korea be determining its staffing decisions or other elements of regulatory intensity based on resource allocation choices of the United States and other industrialized economies?

Many international financial experts proceed from the assumption that there is, in fact, much that developing countries can learn from studying and emulating the regulatory structures of more advanced countries. The implication is that what makes regulatory sense in one jurisdiction would make sense elsewhere around the world.¹⁰ Indeed, my own predilections lie in that

9 Similarly, the incremental costs of raising general revenues to support financial regulation might be considered a regulatory cost.

10 See, e.g., WORLD BANK, *DOING BUSINESS IN 2006: CREATING JOBS* (2006) (providing advice for developing countries based at least in part on the strategies of developed nations).

direction. Otherwise I should not have been going to South Korea (or any other country) to give advice on financial reform. It bears noting, however, that there are a number of reasons why countries should be cautious in importing regulatory structures from foreign jurisdictions, even basic components of regulation like general targets for staffing levels at supervisory agencies:

1. *Differences in Scale.* One obvious problem relates to the problem of scale. India presumably needs a larger regulatory apparatus than, say, Thailand, but how much larger? Is there a linear relationship between the appropriate level of regulatory staffing based on population or GDP, or are there economies of scale in financial regulation that warrant something less than a linear relationship.

2. *Differences in the Composition and Sophistication of Financial Services Industry.* Another obvious difference between jurisdictions is the composition and sophistication of their financial services industries. Some countries have many banks while others have few. Some have developed capital markets while others do not.¹¹ In some countries, financial institutions have sophisticated systems of internal controls, while in others they do not. Presumably these considerations are also relevant in determining the optimal level of a country's regulatory effort, including its staffing and budgeting decisions.

3. *Differences in Regulatory Objectives.* Countries may also differ in their regulatory objectives. Even countries as similar in terms of regulatory philosophy and industrial development as the United States and the United Kingdom have strikingly different goals for their financial regulatory agencies.¹² If countries benefit differentially from financial regulation, then their optimal regulatory structures are also likely to differ.

4. *Different National Endowments.* Wage and capital costs will also vary across jurisdictions, as will the educational levels of the population. Such differences imply that different combinations of labor and capital investments might be appropriate in different jurisdictions, with higher staffing levels appropriate in jurisdictions with low labor costs.

5. *Different Levels of Enforcement Intensity.* Another potentially important difference concerns the intensity with which financial regulations are enforced in various jurisdictions. Where enforcement levels are high and are supplemented with private rights of action, one might assume that less regulation or perhaps fewer regulators would be needed to obtain a given

11 For an exploration of the differences in financial systems around the world, see FRANKLIN ALLEN & DOUGLAS GALE, *COMPARING FINANCIAL SYSTEMS* (2000).

12 Howell E. Jackson, *An American Perspective on the U.K. Financial Services Authority: Politics, Goals & Regulatory Intensity*, in *REGULATORY REFORMS IN THE AGE OF FINANCIAL CONSOLIDATION: THE EMERGING MARKET ECONOMY AND ADVANCED COUNTRIES 39* (Lee-Jay Cho & Joonkyung Kim eds., 2006), available at http://www.kdi.re.kr/kdi_eng/database/report_read05.jsp?l=1&pub_no=00009931 [hereinafter Jackson, *American Perspective*].

amount of compliance than would be necessary in a jurisdiction with more lax enforcement intensity and limited private rights of action.¹³

6. *Different Levels of Lawlessness of the Population.* Finally, there may be differences in the underlying levels of lawfulness in different jurisdictions. Some jurisdictions may be populated with scofflaws, prone to abusive practices and needing intensive and continuous oversight. Other populations may be more lawful, less prone to fraud and deceit, and hence less in need of supervisory oversight. The benefits to be derived from regulatory efforts in the former jurisdictions are likely to be greater than regulatory efforts in the latter, again complicating international comparisons.¹⁴

So there are many reasons to be cautious about selecting a level of regulatory effort in one jurisdiction based on the degree of regulatory effort observed in another jurisdiction. This conclusion holds even if one is confident that the second jurisdiction has established its regulatory effort in a manner that is fully cognizant of the costs and benefits of financial regulation within its boundaries.

II. Evidence of Variations in Regulatory Effort and Enforcement Intensity

And yet, one still wonders whether there is some rough consensus as to the appropriate level of regulatory effort and enforcement intensity that can be observed among the leading industrialized countries. Accepting that local conditions vary and one size will not fit all, can one nevertheless offer some guidance as to appropriate levels of regulatory intensity that would offer ballpark targets?

In an effort to gain purchase on this question, I present preliminary evidence on the levels of regulatory intensity in a number of jurisdictions. Analysis focuses on two different measures of intensity: total regulatory budgets and staffing on the one hand, and securities enforcement actions on the other. In each instance I begin with data regarding the United States, where information is most easily collected. I then offer some comparative analysis, drawing on a combination of third-party data and information collected under my supervision.

Many caveats apply to these data. These indicia of regulatory intensity relate only to a subset of a comprehensive measure of regulatory costs. Enforcement levels are not, strictly speaking, included in regulatory costs, though they are intimately connected to regulatory costs. Finally, the data

13 There is, however, some empirical evidence suggesting that greater public regulatory intensity is sometimes positively correlated with more robust private rights of actions, suggesting that jurisdictions inclined to raise legal standards in one area may also be inclined to do so in the other areas. See Laura Nyantung Beny, *Do Insider Trading Laws Matter? Some Preliminary Comparative Evidence*, 7 AM. L & ECON. REV. 144, 161 (2005).

14 Cf. John C. Coffee, Jr., *Do Norms Matter? A Cross-Country Evaluation*, 149 U. PA. L. REV. 2151 (2000) (speculating that strong social norms may explain lower levels of corporate fraud in Scandinavian countries).

presented below are incomplete in certain respects, and reporting conventions undoubtedly vary across jurisdictions (key variations of which I am aware are noted).¹⁵ Despite all these shortcomings, the evidence presented below is, to my knowledge, the most comprehensive ever produced on comparative regulatory intensity.

A. *Regulatory Budgets and Personnel Levels*

1. The Regulatory Budgets and Staffing Levels in the United States

To establish one benchmark against which to make international comparisons, I have attempted to collect a comprehensive picture of regulatory budgets and staffing levels for financial regulators in the United States. Although U.S. regulatory agencies generally make reasonable efforts to report this information, the fragmentation of U.S. supervisory oversight, both between sectors of the financial services industry and between state and federal authorities, makes this a challenging data collection process. Table 1 presents an overview of the regulatory budgets and staffing levels for the United States in 2002.

As illustrated in Table 1, the total budget of financial regulatory authorities in the United States in 2004 was nearly \$6 billion, and staffing levels were reported at 43,691 people.¹⁶ Before attempting to compare these indicia of regulatory effort to data from other jurisdictions, let me summarize some interesting points about information provided in Table 1. First, half of the financial regulatory budgets in the United States are allocated to the oversight of depository institutions, with a somewhat smaller percentage of staff engaged in this field. Our second largest area of financial regulation is the securities industry if one measures by budgets, or the insurance industry if one measures

15 The data collection challenges inherent in tables of the sort presented in this Article are considerable. Even if regulatory bodies are willing to disclose information about budgets and staffing, one must ascertain all the government bodies in each jurisdiction with regulatory responsibility. In many countries, jurisdiction is fragmented, with some larger bodies—for example, ministries of finance or central banks—fulfilling important regulatory roles but dedicating only an unspecified fraction of their resources to supervisory efforts. Corporate law oversight, which is located primarily at the state level in the United States, is often integrated into financial oversight in other jurisdictions, and accounting and auditing oversight is allocated in a myriad of ways around the world. While the data on budgets and staffing reported in the text are generally accurate, I have relied primarily on the data collection effort of others with the knowledge that in many jurisdictions the data may have significant omissions.

16 The data presented in Table 1 are preliminary because, among other things, they do not include estimates of state securities commission budgets or staffing. Certain other estimates, in particular estimates of state banking commissions and budgets for certain securities self-regulatory organizations such as the NASD, are drawn in part from other surveys, most importantly surveys of regulatory costs that the U.K. Financial Services Authority prepares each year. In some instances, data were not available for 2004, so data from prior years were extrapolated to produce estimates for 2004. For some agencies, including the Federal Reserve Board and two of the agencies responsible for supervising private pensions, costs and personnel had to be allocated from larger groupings with other responsibilities.

by staffing levels. As suggested by the column reporting budget per staff member, the differential results from the fact that the compensation levels paid to regulatory staff in the securities field, which includes personnel from SROs, are much higher than the salaries for regulatory staff for the insurance industry.¹⁷ The smallest budgets and staffing levels are for the regulation of private pension plans, but even in this sector the levels of regulatory expenditure (total budgets in excess of \$500 million and staffing of nearly 5,000 individuals), the numbers are not trivial.

Table 1: U.S. Budgets and Staffing for Financial Regulation
(Estimates for 2004)

	Budget	Percent of Total Budget	Staff	Percent of Total Staff	Budget per Staff
Depository Institutions	\$2,706,674,700	45.1%	18,643	42.7%	\$145,184
Securities Industry	\$1,683,712,410	28.1%	7,010	16.0%	\$240,187
Insurance Industry	\$1,028,500,000	17.2%	13,056	29.9%	\$78,774
Private Pensions	\$577,159,605	9.6%	4,982	11.4%	\$115,849
Total	\$5,996,046,715	100.0%	43,691	100.0%	\$137,236

2. Comparative Analysis Using Data from Financial Services Authority

To get a sense of how U.S. regulatory budgets and staffing levels compare to those of other jurisdictions, one can look to data that the U.K. Financial Services Authority compiles each year in its annual reports on comparative regulatory costs.¹⁸ While the scope of the FSA's annual survey is relatively limited—only ten jurisdictions are included—the data are still useful, both because they are compiled with some care and because they make an effort to allocate regulatory costs and staffing levels to the three basic sectors of the financial services industry: banking, securities, and insurance. As the FSA does

¹⁷ The differential would likely decrease somewhat if state securities regulatory budgets and staffs were included in Table 1, as compensation levels for state regulators are typically lower than those of federal and SRO personnel.

¹⁸ As I have discussed elsewhere, cost efficiency is a major objective for the FSA and the agency compiles comparative data on an annual basis in order to demonstrate compliance with this Parliamentary requirement. See Jackson, *American Perspective*, *supra* note 12, at 47-55.

not have jurisdiction over private pension plans, the agency does not compile data on this area of the financial services industry.

Table 2 presents, in a slightly reformulated manner,¹⁹ comparative financial costs and staffing data from the FSA's 2004 Annual Report.²⁰ The ten jurisdictions on which the FSA collects data are organized alphabetically, starting with Australia and ending with the United States. A second set of estimates for the United States (labeled "U.S. (HEJ)") are presented at the extreme right of the table and reflect my own estimates of the U.S. financial regulatory costs and staffing for the United States, which are larger than those of the FSA and, I believe, more complete.²¹

19 The FSA reports regulatory costs in pounds sterling, based on exchange rates prevailing on April 7, 2004. I have converted these values into U.S. dollars based on the prevailing exchange rate on that same date.

20 2003-2004 FSA ANNUAL REPORT, app. 5.

21 The data presented in this table are more limited than the data presented in Table 1 and discussed in the surrounding text. The table does not include private pension regulation because the FSA does not collect data for that sector.

Table 2: FSA Estimates of Regulatory Costs in Selected Jurisdictions (2004)

	Australia	Canada	France	Germany	Hong Kong	Irish Republic	Singapore	Sweden	UK	US	US (HEJ)
Total Costs of Financial Regulators (US \$ millions)	\$214	\$249	\$130	\$109	\$105	\$47	\$44	\$25	\$497	\$4,633	\$5,419
Total Staff	1,900	2,209	916	1,319	640	267	300	186	3,069	29,924	38,709
Regulatory Costs per billion of GDP	\$412,960	\$298,218	\$74,491	\$45,429	\$663,341	\$315,692	\$481,208	\$83,152	\$276,655	\$425,804	\$497,984
Total Regulatory Staff Per Million of Population	96	70	15	16	94	68	71	21	52	103	133
Regulatory Costs per Regulatory Staff Member (US \$)	\$112,669	\$112,644	\$142,149	\$82,683	\$164,370	\$175,644	\$146,515	\$134,472	\$161,798	\$154,840	\$139,990
Banking Budget per US \$ bn of banking assets	\$19,400	\$23,969	\$17,452	\$67,815	\$31,157	n.a.	\$31,394	\$21,922	\$18,130	\$247,405	\$298,333
Insurance Budget per US \$ bn of Insurance Premia	\$852,941	\$477,912	\$62,642	\$170,860	\$1,000,000	n.a.	\$1,029,412	\$201,439	\$158,629	\$809,726	\$809,541
Securities Budget per US \$bn Stock Market Cap.	\$279,587	\$220,515	\$19,041	\$8,896	\$73,317	n.a.	\$95,406	\$33,573	\$138,159	\$83,943	\$97,973

Source: FSA Annual Report of 2003/2004; Author's Calculations.

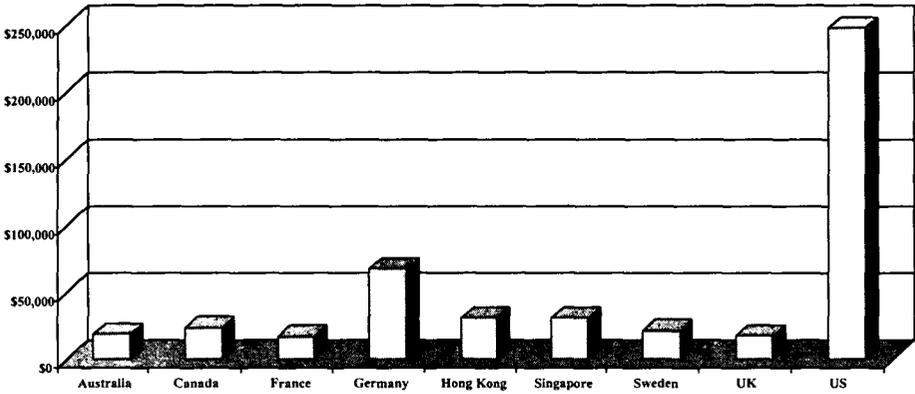
The first two rows of data presented in Table 2 report absolute levels of regulatory costs and staffing, similar to figures reported for U.S. regulatory costs and staffing levels in Table 1. The balance of the table adjusts the data in various ways designed to facilitate comparative analysis. The first three adjustments deal with the entire system of financial services regulation: regulatory costs as a percentage of GDP, regulatory personnel as a percentage of total population, and regulatory costs per staff member. The final three adjustments present the total regulatory costs in each of the major sub-sectors of the financial services industry (banking, securities, and insurance) divided by one crude measure of the size of each sector in reporting countries (total banking assets, stock market capitalization, and insurance premiums). Estimates of sector size in each country are based on information reported in the FSA's 2004 Annual Report. Estimates of GDP and population are drawn from World Bank data sets for 2003.²²

The one area in which U.S. regulatory intensity is unambiguously out of line with the other countries reached by the FSA surveys is the field of banking. Even adjusted for total banking assets, the costs of banking regulation in the United States are dramatically higher than the costs in any other jurisdiction presented in Figure 1.²³ According to FSA estimates, total U.S. banking regulatory costs are \$247,405 per billion dollars of banking assets, whereas the next most costly jurisdiction is Germany with \$67,815 of bank regulation costs per billion dollars of banking costs—roughly one quarter the U.S. level of intensity under this measure. Idiosyncratic features of decentralized banking regulation and a fragmented industry in the United States undoubtedly contribute to this differential, but the relative cost of banking regulation in the United States is nonetheless striking.

22 See World Bank Home Page, <http://www.worldbank.org> (follow "Data & Research" hyperlink).

23 In the following figures, the U.S. data presented come from the FSA's estimates, rather than my own somewhat higher estimates of costs and staffing in the United States. Had my data been used, U.S. regulatory intensity would appear higher on all reported dimensions, aside from regulatory costs per staff member.

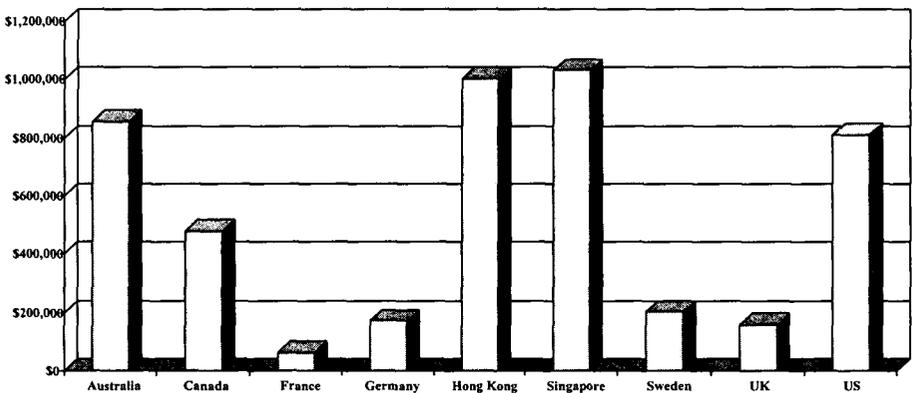
Figure 1: Bank Regulation Costs Per \$Billion of Banking Assets



Source: FSA 2003/2004 Annual Report, app. 5.

As Figure 2 shows, the United States is also toward the top end of the spectrum of insurance regulation costs per billion dollars of insurance premia. Indeed, if one sets aside the offshore financial centers (Hong Kong and Singapore), the United States and Australia are basically tied with \$809,541 and \$852,941 of insurance regulatory costs per billion dollars of insurance premia. Australia’s reported intensity of regulation, however, is inflated by having a fairly small insurance industry. Again, the decentralization of U.S. insurance regulation undoubtedly contributes to the country’s high costs of regulation in this field.

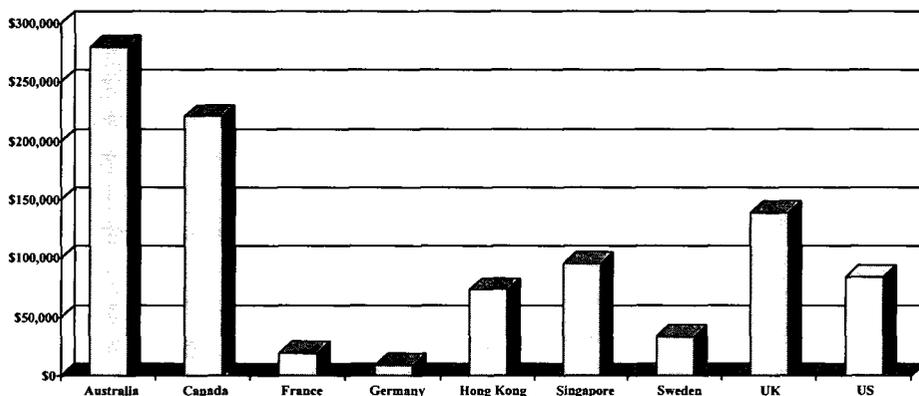
Figure 2: Insurance Regulation Costs Per \$Billion of Insurance Premia



Source: FSA 2003/2004 Annual Report, app. 5.

In the area of securities regulation (see Figure 3), the level of regulatory intensity reported for the United States (\$83,943 per billion dollars of stock market capitalization) is lower than the adjusted costs for Australia (\$279,587), Canada (\$220,515), and the United Kingdom (\$138,159), and roughly comparable to that of the offshore centers, Hong Kong (\$73,317) and Singapore (\$95,406). However, this remains substantially higher than France (\$19,041), Germany (\$8,896), and Sweden (\$33,573). The ranking of the United States on this measure of regulatory intensity is again influenced by the scaling factor. U.S. stock market capitalization, estimated for these purposes at \$17 trillion, is more than seven times larger than the next largest market, which is the United Kingdom's, estimated here at \$2.4 trillion.

Figure 3: Securities Regulation Costs Per \$Billion of Stock Market Cap.



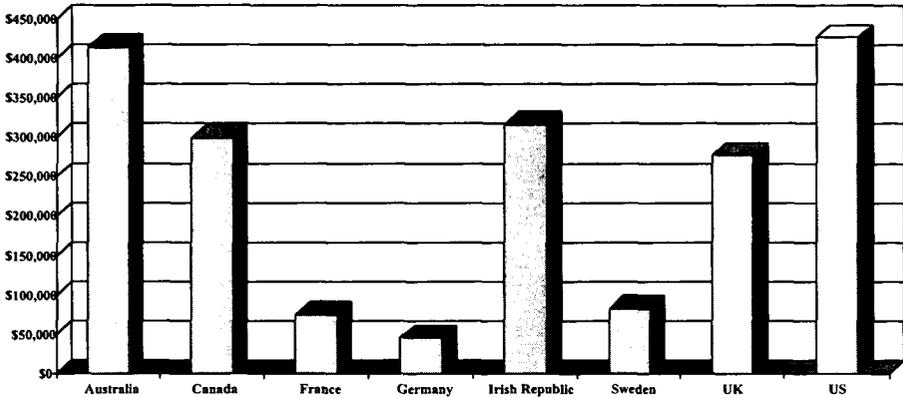
Source: FSA 2003/2004 Annual Report, app. 5.

In Figures 4 and 5, I present summary estimates of intensity in financial regulation: first total regulatory costs as a percentage of GDP and then total regulatory staff as a percentage of population. Although these gross measures of intensity have their drawbacks, the two charts are still illuminating. First, by both measures of intensity, U.S. financial regulation outstrips that of all other jurisdictions surveyed here (the offshore financial centers being excluded for these overall measures). Second, these measures of regulatory intensity do not reflect any adjustments for economies of scale. Were such adjustments included, the United States, having an economy and population many times larger than other jurisdictions surveyed, would have led the world by an even larger margin.²⁴ Finally, if one begins to look for larger trends in the data, it appears that by both measures of overall intensity the common law countries outstrip civil law jurisdictions. Notice how the three civil law jurisdictions—

²⁴ The United States' GDP is roughly 4.5 times larger than number two Germany's, while the American population is 3.5 times larger than Germany's. See World Bank Home Page, *supra* note 22.

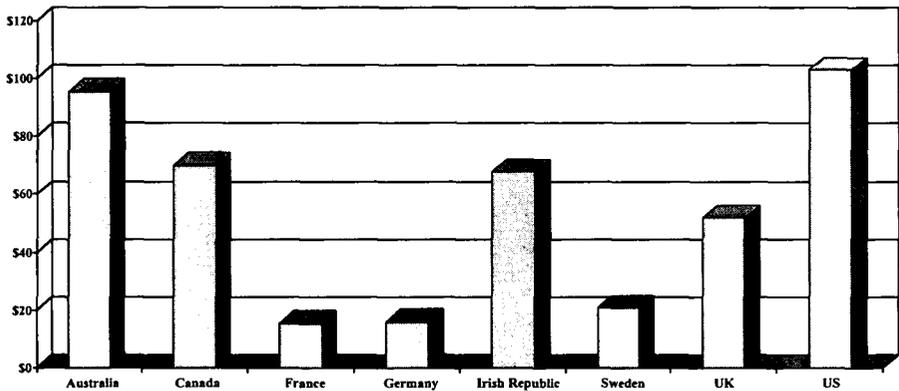
France, Germany, and Sweden—all show markedly lower levels of regulatory intensity in both charts, as compared with the common law jurisdictions. I will return to this last point shortly.

Figure 4: Total Financial Regulatory Costs Per \$Billion of GDP



Source: FSA 2003/2004 Annual Report, app. 5.; Author's compilations

Figure 5: Total Financial Regulatory Staff Per Million of Population



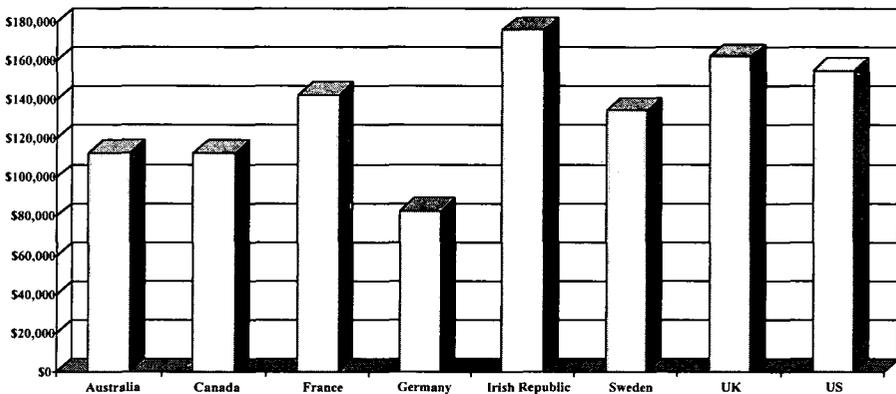
Source: FSA 2003/2004 Annual Report, app. 5.; Author's compilations

A final dimension of comparison is regulatory costs per staff member, as shown in Figure 6. The measure reflects the average amount of financial resources supporting each staff member and might also be seen as a measure of staff quality as salaries constitute the largest share of regulatory budgets.²⁵ From my perspective, the most interesting point about this comparison is the

²⁵ As suggested above, variations in labor market costs as well as exchange rates make these comparisons problematic.

consistency in regulatory costs per staff member across jurisdictions. While other measures of regulatory intensity vary a good deal, most jurisdictions are expending roughly the same amount of financial resources per staff member. Six of the ten jurisdictions reported regulatory costs in the relatively narrow range of \$134,000 to \$164,000 per staff member, with the Irish Republic being slightly above that range at over \$175,000 per staff member and both Canada and Australia being somewhat below at just over \$112,000 per staff member. Only Germany's reported expenditures per staff member (at less than \$83,000) seem out of line. So while jurisdictions seem to be making very different choices about how intensely to regulate the financial services industry, there is much less variation in the level of support they put behind each member of their regulatory staff.

Figure 6: Total Financial Regulatory Costs Per Staff Member



Source: FSA 2003/2004 Annual Report, app. 5.

3. Further Extensions with Central Banking Publications Survey

One of the most intriguing implications of the foregoing analysis is the suggestion that common law jurisdictions might, as a general matter, impose higher levels of regulatory intensity on their financial services industries than do civil law jurisdictions. To the extent that civil law regimes are often characterized as having heavy-handed legal requirements that inhibit economic development and the emergence of vibrant capital markets, this finding is counterintuitive and suggests that further investigation into the common law/civil law distinctions may be in order. Within the law and finance literature, common law jurisdictions are sometimes characterized as being more conducive to capital market development because the common law protects

investors more effectively than civil law regimes;²⁶ however, if the intensity of regulation is generally higher in common law jurisdictions, then an alternative hypothesis arises: It is not law, but enforcement that matters.

While I have not had the opportunity to pursue this issue in substantial detail, I have made some preliminary efforts to extend the analysis undertaken above. Using a recent survey of international financial regulation, undertaken by Central Banking Publications of London (CBP),²⁷ and supplemented by data from several other sources, I have assembled preliminary estimates of total regulatory costs and staffing levels, and adjusted estimates of overall financial regulatory intensity for eighteen civil law jurisdictions and ten common law jurisdictions. The data are presented in summary form in the Appendix.²⁸

The differential between regulatory intensity in civil law and common law jurisdictions noted above in the FSA data set seems to be confirmed (indeed somewhat strengthened). Though it is possible that the construction is somewhat biased in the direction of underestimating the size of regulatory staffs in civil law jurisdictions,²⁹ my intuition is that the magnitude of the differences is substantial enough to survive in a more consistently constructed data set. At a minimum, the data here suggest that further inquiry is warranted.³⁰

The most striking differences between the civil law and common law jurisdictions are in the two basic measures of overall regulatory intensity: Regulatory Costs per Billion Dollars of GDP (Figure 7) and Regulatory Staff per Million of Population (Figure 8). In the first case, the civil law jurisdiction average regulatory costs (\$88,942) are substantially lower than the averages for common law jurisdictions (\$342,460). Similarly, average staffing levels for civil law countries (28.76 per million of population) are markedly lower than those of common law jurisdictions (75.09 per million of population). Even the

26 See, e.g., Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113 (1998).

27 See FRESHFIELDS BRUCRHAUS DERINGER, HOW COUNTRIES SUPERVISE THEIR BANKS, INSURERS, AND SECURITIES MARKETS (Neil Courtis ed., 2004).

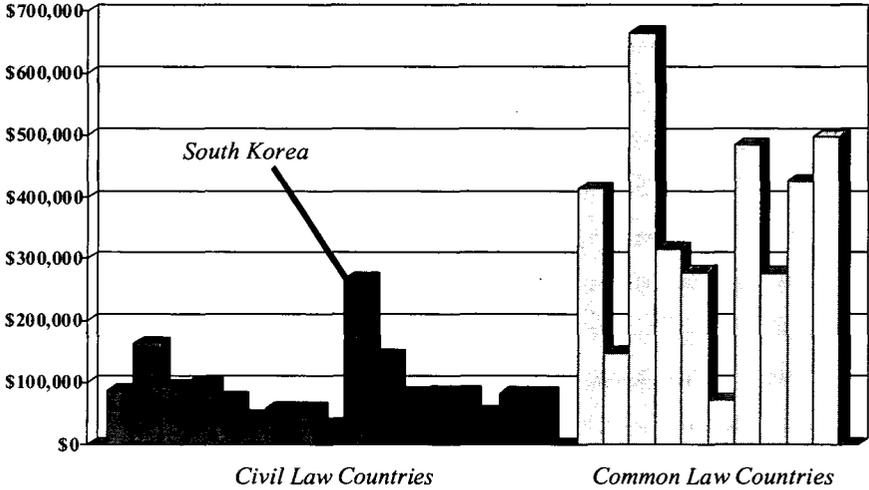
28 In compiling data for the Appendix, I began with the FSA data reported above because the quality of the FSA's survey appears to be higher than the quality of the data compiled in the more comprehensive CBP study. The Appendix also includes additional data on South Korea that I obtained directly from South Korean sources. The CBP entry on South Korea appeared to be flawed. See Email from Professor Song-In Jun, Hongik Univ., to Howell E. Jackson, John S. Reid, Jr., Professor of Law, Harvard Law Sch. (Aug. 20, 2004) (on file with author). Finally, I have also included in the Appendix my own estimate of U.S. regulatory costs and staffing.

29 My chief concern is that I have had to rely more heavily on CBP data for civil law jurisdictions, as the FSA's data are tilted in favor of common law jurisdictions. As mentioned earlier in note 21, the FSA data are generally more comprehensive, whereas the CBP data are more apt to exclude budgetary and staffing information for regulatory agencies that are located in large ministries with broader jurisdictions, as is often the case with insurance regulation. The CBP exclusions, however, typically concern very limited sectors of the financial services industry, which is why I believe that a more comprehensive report of civil law jurisdictions would not materially affect the data presented in the Appendix or illustrated in the figures in the main text.

30 See Jackson & Roe, *supra* note 1 (exploring this relationship more thoroughly, using an unbiased dataset and focusing on capital markets regulation, and finding similar and statistically significant differences between civil and common law jurisdictions).

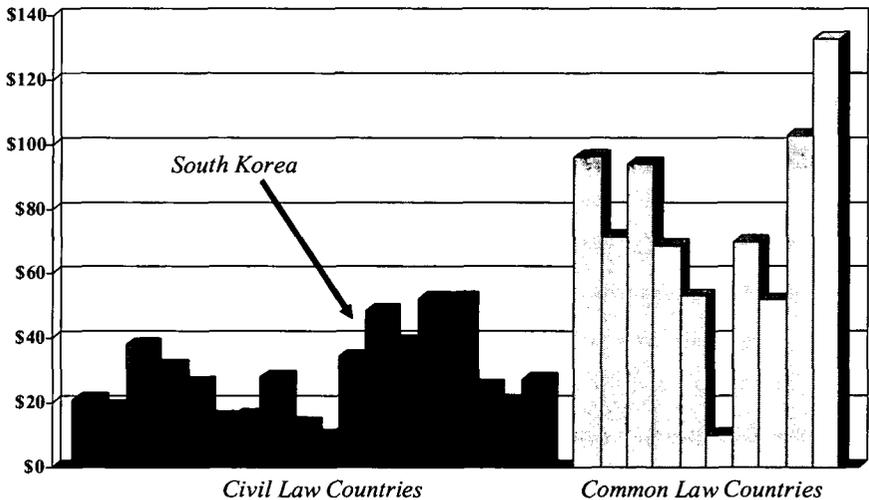
average for regulatory costs per staff member are lower for civil law jurisdictions (\$90,466) than for common law jurisdictions (\$135,565).

Figure 7: Civil Law v. Common Law Countries: Regulatory Costs Per \$Billion of GDP



Source: FSA 2003/2004 Annual Report, App. 5; FBD Data; Author's compilations.

Figure 8: Civil Law v. Common Law Countries: Regulatory Staff Per Million of Population



Source: FSA 2003/2004 Annual Report, App. 5; FBD Data; Author's compilations.

A more complete investigation of the implications of these differences between the financial regulatory intensity of civil law and common law jurisdictions is beyond the scope of this Article. In a recent article drawing on the data presented here, Professor Mark Roe has begun this process, speculating that political commitments in common law jurisdictions to a host of legal mechanisms designed to protect capital markets—well-financed regulatory staffs as well as strong fiduciary duties—may be what distinguish common law jurisdictions from their civil law counterparts.³¹ Accordingly, the fact that civil law jurisdictions generally maintain larger public bureaucracies than do common law jurisdictions may have obscured the evidence, highlighted here, that financial regulation in common law jurisdictions is generally more robust. It may also be that the traditions of individual responsibility in financial transactions and an attendant maintenance of a larger enforcement apparatus may be greater in common law jurisdictions, whereas other mechanisms of state control may be more heavily utilized in civil law countries.³² Finally, it is possible that regulatory bodies in common law jurisdictions may have more capacity to adapt and grow in response to financial crises and financial innovation.³³

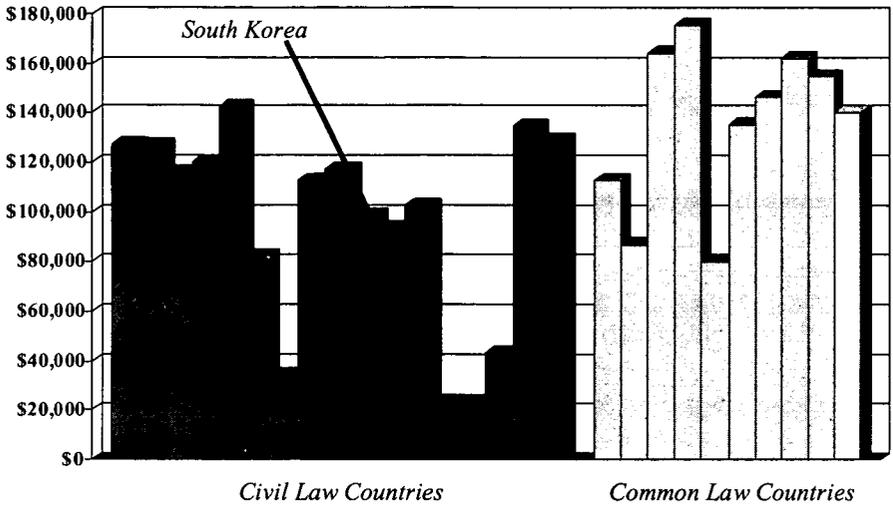
One final comment about this expanded data set concerns my query from South Korea. In this data set, I have included for the first time information on South Korean financial regulation. (The bar representing South Korea is noted with an arrow in Figures 7, 8, and 9). While this analysis cannot speak to the normative question whether South Korea is maintaining an appropriate level of regulatory staffing at its FSA, the figures do suggest that South Korea's level of regulatory intensity is roughly in line with the efforts observed in other civil law countries, and perhaps above average for civil law jurisdictions if one focuses on the country's regulatory costs adjusted for GDP. (See Figure 7) While the higher levels of regulatory effort observed in common law jurisdictions—including regional neighbors such as Hong Kong and Singapore—suggest that higher levels of regulatory intensity might also be plausible, the South Korean resource allocation choices do not seem to be widely out of line with international standards.

31 See Roe, *supra* note 1, at 470-73; see also Paul G. Mahoney, *The Common Law and Economic Growth: Hayek Might Be Right*, 30 J. LEGAL STUD. 503 (2001) (exploring common law emphasis on security of property and contract rights as critical to the development of financial markets).

32 See, e.g., Elizabeth Heger Boyle, *Is Law the Rule? Using Political Frames to Explain Variation in Legal Activity*, 79 SOC. FORCES 385 (2000) (noting variations in individualistic legal activity across jurisdictions, though not distinguishing civil and common law origins as a source of this variation).

33 See, e.g., Christoph Knill, *Explaining Cross-National Variance in Administrative Reform: Autonomous Versus Instrumental Bureaucracies*, 19 J. PUB. POL'Y. 113 (1999).

Figure 9: Civil Law v. Common Law Countries: Budget Per Staff



Source: FSA 2003/2004 Annual Report, App. 5; FBD Data; Author's compilations.

B. Securities Enforcement

So far in this Section, I have considered only one kind of regulatory cost: direct governmental expenditures. As explained earlier, however, there are many other kinds of regulatory costs that should be evaluated in a theoretically complete balancing of regulatory costs and benefits: for example, industry compliance costs, litigation costs, and the costs of unnecessarily disrupted transactions. Conceivably, there is some reasonably stable relationship between direct government costs and those other kinds of regulatory costs. After all, as a first approximation, it seems reasonable to assume that the more effort a government expends on regulatory activity, the higher the costs imposed on private parties. However, some factors may point in the other direction. For example, if auditors were hired by a government agency, then private costs for creating audited financial statements would be lower. Moreover, to the extent that one is interested in making international comparisons, the relationship between public costs and private costs may vary considerably, depending on the efficacy of regulatory effort and a number of other factors. To make fully credible international comparisons regarding total regulatory costs, one would likely need to conduct fairly intensive studies of individual countries. This would be a substantial undertaking.

A more modest, but still challenging, study would compare the level of sanctions imposed on financial markets and financial institutions in different jurisdictions. Data on sanctions are often compiled within government agencies, if not always made available to the general public. Moreover, the level of sanctions imposed in various markets might be more tightly correlated with private regulatory costs than are gross regulatory budgets. After all, well-paid but ineffectual regulators will increase regulatory budgets, but may not have much of an impact on private compliance efforts. Higher sanctions, on the other hand, do probably have a strong influence on private compliance efforts. The latter conclusion rests on the fairly modest assumptions that those sanctions are, in fact, imposed in response to regulatory infractions as opposed to some other reasons (e.g., punishing enemies of the government).

To get a more robust picture of the regulatory intensity in various jurisdictions, a researcher might sensibly compile data on the level of sanctions in various jurisdictions as well as data on regulatory costs and budgeting. My research assistants and I are currently undertaking such an effort, initially for securities enforcement efforts in the United States and then for a wider set of jurisdictions, which currently include the United Kingdom and Germany. Table 3 presents summary data on U.S. securities enforcement actions between 2002 and 2004.³⁴ As with other information presented in this paper, the data are preliminary in certain respects and subject to updating.³⁵

1. The U.S. Baseline

U.S. securities enforcement efforts are notable in a number of respects. First, the number of governmental agencies and quasi-governmental agencies is striking: not just the SEC, but also the Department of Justice, the state securities commissions, plus the NASD and NYSE, play major roles and impose substantial sanctions on the securities markets and securities firms. Second, the overall number of public actions each year is high, averaging 3,624 actions per year. And the level of public sanctions is substantial: averaging over \$5.3 billion per year. Not included in these administrative sanctions are substantial criminal convictions for securities-related crimes, averaging at the federal level nearly 4,200 months of prison sentences plus more than 1,500 months of probation per year during the 2002-2004 period. (Comparable data on state criminal sentences and probation are not available.)

³⁴ Details about the assumptions underlying this presentation and a comprehensive list of sources are available from the author.

³⁵ For certain kinds of sanctions, such as NYSE arbitrations, data about monetary sanctions were not available. In other areas, such as state enforcement efforts, data were not available for each of the three years averaged in Table 3. In these cases, Table 3 reports averages of data from years in which data are available. This convention may bias the level of state enforcement efforts upward as the available data were from later years in which state securities commissions have been particularly active.

Table 3: Summary of US Enforcement Actions in Securities Regulations

	Actions			Monetary Sanctions		
	Annualized Data: 2002-2004			Annualized Data: 2002-2004 (US Dollars)		
	Average Number Enforcement Actions	Percentage of Grand Total	Percentage of Total Public Actions	Total Monetary Sanctions	Percentage of Grand Total	Percentage of Total Public Actions
Public Actions:						
SEC	639	9.9%	17.6%	\$2,164,666,667	24.6%	40.9%
DOJ	106	1.6%	2.9%	\$766,525,000	8.7%	14.5%
State Agencies (estimated)	1,482	23.0%	40.9%	\$1,114,949,985	12.7%	21.1%
<i>Subtotal</i>	<i>2,227</i>	<i>34.5%</i>	<i>61.5%</i>	<i>\$4,046,141,652</i>	<i>46.1%</i>	<i>76.5%</i>
NASD	1,170	18.1%	32.3%	\$1,078,282,572	12.3%	20.4%
NYSE	227	3.5%	6.3%	\$163,059,260	1.9%	3.1%
<i>Subtotal</i>	<i>1,397</i>	<i>21.7%</i>	<i>38.5%</i>	<i>\$1,241,341,833</i>	<i>14.1%</i>	<i>23.5%</i>
Total Public Actions	3,624	56.2%	100.0%	\$5,287,483,485	60.2%	100.0%
Private Actions:						
Class Actions	210	3.3%	n.a.	\$3,336,333,333	38.0%	n.a.
NASD Arbitrations	1,720	26.7%	n.a.	\$162,333,333	1.8%	n.a.
NYSE Arbitrations	894	13.9%	n.a.	n.a.	n.a.	n.a.
Total Private Actions	2,824	43.8%	n.a.	\$3,498,666,667	39.8%	n.a.
Grand Total— Private & Public	6,448	100.0%	n.a.	\$8,786,150,151	100.0%	n.a.
Adjusted Grand Total*	n.a.	n.a.	n.a.	\$8,176,733,485	93.1%	n.a.

* Adjusted to deduct sanctions reported under two or more agencies.

Perhaps the most noteworthy feature of U.S. securities enforcement action is the fact that the public monetary sanctions, substantial though they are, are not the only source of monetary sanctions imposed on the industry during the period surveyed. Nearly \$3.5 billion per year of private sanctions were also imposed on the U.S. securities markets in this period, the vast majority of which came through class action settlements, though still more than \$160 million of awards each year were made through NASD arbitration proceedings. As mentioned earlier, data on NYSE arbitration awards are not available.

2. Two Preliminary Comparisons: The United Kingdom and Germany

Simply reporting that average annual U.S. securities enforcement efforts in the 2002 to 2004 period, consisting of some 6,448 public and private actions and imposing nearly \$8.2 billion of public and private monetary sanctions plus a considerable amount of non-monetary sanctions (both criminal and civil), may persuade many readers that the intensity of U.S. securities enforcement efforts is higher than that of most other jurisdictions. Indeed, I hardly need to report the data, as it is commonly understood among practitioners that enforcement and litigation are more serious matters in the United States than in other jurisdictions.³⁶

It is instructive, however, to quantify exactly how much more serious (that is, intensive) enforcement actions are in the United States if one is seeking to get a handle on the differences in overall regulatory costs in this country as compared with other jurisdictions. In addition, much of the academic debate regarding comparative financial regulation—for example, discussions about the existence of regulatory convergence—often seems to assume some rough equivalence of regulatory effort from one jurisdiction to the next. If the level of enforcement intensity as well as the level of direct regulatory costs is higher in some jurisdictions than in others, then *de facto* regulatory convergence is unlikely to occur even if *de jure* convergence does.

My efforts to compare securities enforcement intensity in the United States with securities enforcement intensity in other jurisdictions are at an extremely preliminary stage. To date, my efforts have been limited to public enforcement efforts by central government agencies in the United Kingdom and Germany.³⁷ In the case of Germany, my information is limited to the number of

36 See, e.g., COMM. ON CAPITAL MARKETS REGULATION, *supra* note 1, at 11 (“The United States has the toughest administrative enforcement of securities laws in the world Foreign companies commonly cite the U.S. enforcement system as the most important reason why they do not want to list in the U.S. market.”).

37 Data for this Section are drawn, in the case of the FSA, from the agency’s annual reports and particularly Appendix 9 to those reports, *available at* <http://www.fsa.gov.uk>. German data are drawn from the BaFin website, *available at* <http://www.bafin.de>. For additional analysis of these jurisdictions and more background information on the sources of these data, see Sava Savov, *Regulatory Convergence in the EU and the Importance of the Enforcement Variable: Evidence from the U.K., Germany and Hungary* (Apr. 27, 2006) (unpublished manuscript), *available at* <http://www.law.harvard.edu/programs/pifs/LLMpapers/Sava%20Savov%203L%20final%20paper.pdf>.

actions and does not include data on sanction levels. While the data are skeletal, my research suggests that the two agencies involved—the Financial Services Authority for the United Kingdom and the Federal Financial Supervisory Body (BaFin) for Germany—represent the principal sources of financial oversight for both jurisdictions.

Table 4 presents summary enforcement data for these two countries along with comparable data for the United States drawn from Table 3. In addition to reporting the total number of enforcement actions and penalties, enforcement intensity is normalized to reflect the size of each country's capital markets as of year-end 2004.³⁸ So, for example, while U.S. public officials had an annual average of 224 actions per trillion dollars of stock market capitalization during 2002-2004, the United Kingdom officials averaged only 25 formal actions. Although German authorities brought more actions than the British (90 per trillion dollars of stock market capitalization), the lion's share of these actions concerned voting rights, a matter that typically would be a matter of state corporate law in the United States. The differential between the level of public sanctions in the United States and the United Kingdom—\$326 million of sanctions for every trillion dollars of stock market capitalization versus \$9 million—is even more pronounced: a difference of more than an order of magnitude. Comparable data on German sanctions are not available, but anecdotal evidence suggests that German sanctioning during this period was a good deal lower than British sanctioning.

³⁸ The stock market capitalization is drawn from a dataset maintained by the World Federation of Exchanges, *available at* <http://www.world-exchanges.org>. As of year-end 2004, the stock market capitalization was \$16.1 trillion for the United States, \$2.9 trillion for the United Kingdom, and \$1.2 trillion for Germany.

Table 4: Comparative Enforcement Activity
(Annual Averages: 2002-2004)

	Number of Public Actions	Actions Per Trillion US \$ of 2004 Market Capitalization	Amount of Sanctions (US \$ millions)	Sanctions (US \$ million) Per Trillion US \$ of 2004 Market Capitalization
United States				
<i>SEC</i>	639	39	\$2,165	\$134
<i>Other Public Agencies</i>	2985	184	\$3,122	\$193
Total	3624	224	\$5,287	\$326
United Kingdom (FSA)				
	72	25	\$27	\$9
Germany (BaFin)				
<i>Other Actions</i>	49	41	n.a.	n.a.
<i>Voting Rights</i>	59	49	n.a.	n.a.
Total	108	90	n.a.	n.a.

Figures 10 and 11 offer visual comparison of the actual levels of public securities actions and public securities sanctions of these jurisdictions, as available, with the public levels reported for the U.S. Securities Enforcement in Table 3. Even when adjusted for market size, the United States had substantially more enforcement actions than the United Kingdom and Germany. On the dimension of public monetary sanctions, the differential between the United States and the United Kingdom was even more dramatic. Moreover, these comparisons do not factor in private securities litigation, which accounts for more than a third of monetary sanctions imposed on U.S. securities markets and which lack any counterpart in either Britain or Germany.

Figure 10: Public Securities Enforcement Penalties: 2002-2004 (Per \$Trillion of 2004 Market Cap)

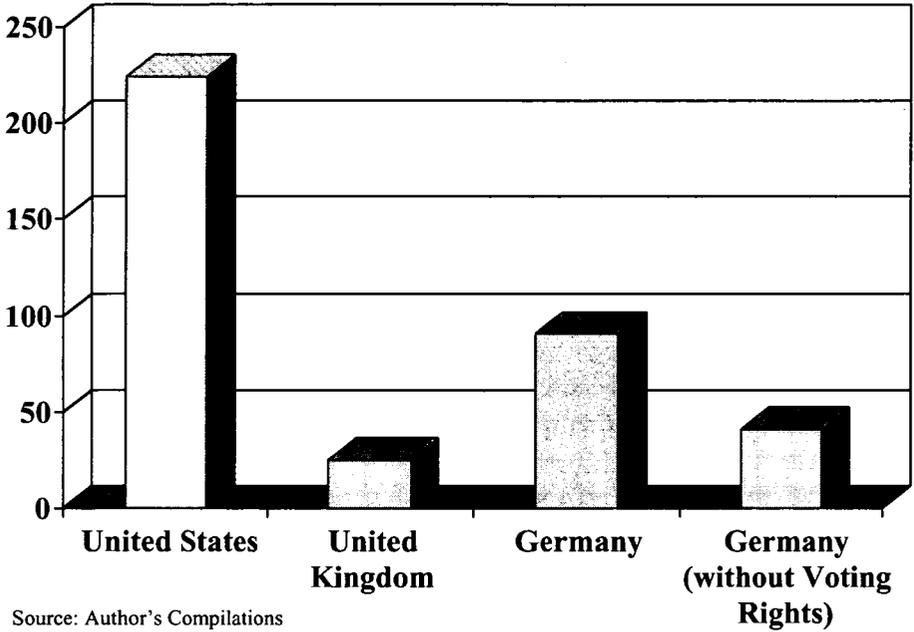
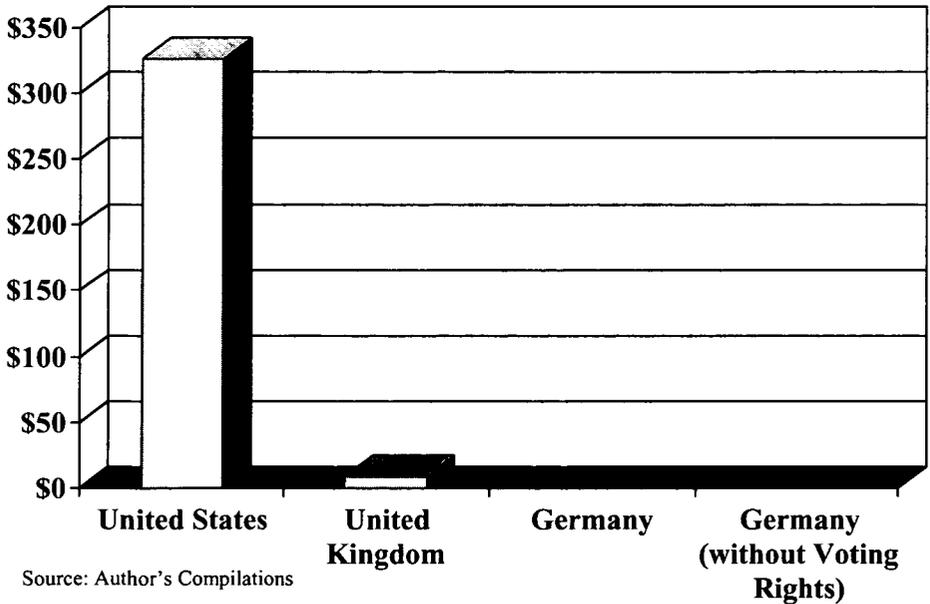


Figure 11: Public Securities Enforcement Fines: 2002-2004 (\$Millions per \$Trillion of 2004 Market Cap.)



While my analysis of securities regulation enforcement is still at a rudimentary stage, the evidence collected so far suggests that there is at least as much variation in securities enforcement efforts across international boundaries as there is variation in levels of regulatory budgets and staffing and probably more, though it is possible that the United States represents an outlier at the upper end of the distribution of intensity in sanctioning.

This comparative data on enforcement intensity should also be regarded as both provisional and incomplete. More than most other jurisdictions, the United States tends toward an adversarial system of regulation, where formal enforcement actions take on great importance. Ample evidence in other fields of investigation suggests that in other countries informal actions, private negotiations, and industry guidance substitute to some degree for formal enforcement actions.³⁹ Where American regulators rely heavily upon enforcement actions to ensure industry compliance, their counterparts in other countries may well use other techniques to a far greater degree. Moreover, even where countries have substantial enforcement programs, their efforts may be targeted at different kinds of behaviors.⁴⁰ Accordingly, even though the enforcement data reported here suggest that enforcement efforts in British and German securities markets are an order of magnitude less intensive than in the United States, such comparisons may not represent a full and complete presentation of supervisory strategies in these jurisdictions.

A further complexity in comparing enforcement data is that jurisdictions have different preferences in terms of what they report as formal enforcement. In some countries, such as the United Kingdom, regulatory officials prefer to resolve investigations without formal actions, often relying on private parties to take remedial steps without formal compulsion.⁴¹ The SEC, by contrast, has a preference for completing actions through some sort of official resolution, including settlements that are announced to the public and recorded in the Commission's annual tally of enforcement action. Jurisdictions also differ in the extent to which they will impose sanctions that are beyond the financial

39 See JAMES Q. WILSON, BUREAUCRACY: WHAT GOVERNMENT AGENCIES DO AND WHY THEY DO IT 295-315 (1989). In commenting upon national differences in regulatory styles, Wilson concludes: "There was no clear relationship between how each nation managed its regulatory process and the laws it enforced or the results it achieved; the consensual European administrative practices served the same goals and produced the same outcomes as the adversarial American practices." *Id.* at 297.

40 For example, in comparing U.S. and Canadian enforcement activities, I found that Canadian regulators addressed a much smaller percentage of their enforcement actions at corporate issuers than does the SEC. See Jackson, Canadian Study, *supra* note 1, at 118-19.

41 Compare FINANCIAL SERVICES AUTHORITY ANNUAL REPORT 2005/2006 143, available at http://www.fsa.gov.uk/pubs/annual/ar05_06/ar05_06.pdf (reporting that over 64% of the FSA's cases were resolved without formal use of powers), with SEC 2006 PERFORMANCE AND ACCOUNTABILITY REPORT 43, available at <http://www.sec.gov/about/secpar/secpar2006.pdf> (reporting that nearly all SEC cases result in a settlement or favorable resolution for the SEC). See generally Margaret Cole, Dir. of Enforcement, Fordham Law Sch., Speech at Fordham Law School: The UK FSA: Nobody Does it Better (Oct. 17, 2006), available at http://www.fsa.gov.uk/pages/Library/Communication/Speeches/-2006/1017_mc.shtml (contrasting US and FSA enforcement strategies).

capacity of respondents to pay.⁴² Again, the SEC sometimes imposed large sanctions, which are often not paid, whereas the British have a policy against imposing sanctions that would bankrupt respondents.⁴³

III. Concluding Remarks and Potential Future Lines of Inquiry

Accept for a moment that further and more systematic empirical inquiry confirms the preliminary evidence presented above and the levels of regulatory intensity—both in terms of governmental expenditures and sanction levels—varies markedly across jurisdictions. What should academic analysts and policy advisers infer from this empirical fact? And how should representatives of governments such as South Korea proceed domestically in light of this information?

A. *Competing Hypotheses Regarding Variation*

As a preliminary matter, one cannot reject out of hand the possibility that observed variation in regulatory intensity might be perfectly rational. Each country may be pursuing an optimal level of financial regulation within its boundaries, but because of the many factors identified above,⁴⁴ we observe different levels of regulatory intensity in each jurisdiction. In many respects, this would be a comforting state of affairs. It would, moreover, greatly simplify discussions of regulatory convergence because it would imply that whatever legal rules a country adopted, these rules would be enforced optimally within that jurisdiction, even though objective measures of intensity—the number of staff assigned to oversee the law or the number of enforcement actions brought each year—might vary from one country to the next.

Another possibility is that regulatory intensity varies from jurisdiction to jurisdiction because some jurisdictions (perhaps most or even all) are regulating their financial markets in a manner that is inefficient in that a different mix of regulatory costs and liability rules would improve social welfare. These inefficiencies would imply some degree of political failure, but we have plenty of theoretical explanations for such shortcomings in public governance: agency capture, path dependence, or a variety of other defects in the political process. To the extent that variations in regulatory intensity across jurisdictions reflect differences in the capacities of different countries to adopt efficient levels of regulation, then discussions about regulatory convergence become more complex. Simply tracking whether countries are converging toward a single legal rule is not that informative in terms of ascertaining the effect of that rule

42 See Jackson, Canadian Study, *supra* note 1, at 118 (discussing Canadian policies with respect to impecunious defendants).

43 See SEC 2006 PERFORMANCE & ACCOUNTABILITY REPORT, *supra* note 41, at 54 (reporting that in FY2003 the SEC collected only 40% of ordered penalties and disgorgements).

44 See *supra* notes 10-14 and accompanying text.

on either industry participants or society at large. One must also consider whether the rule is being enforced with the same degree of intensity across national boundaries in order to determine whether there is de facto regulatory convergence.⁴⁵ De jure convergence may not always equate with de facto convergence.

Yet another possibility is that the variation in regulatory intensity across national boundaries reflects a combination of factors: both variations that reflect different local conditions and variations that reflect differing levels of efficiency in instituting a system of regulatory safeguards.⁴⁶ This hypothesis is really just a combination of the preceding two possibilities: an intermediate and hybrid case, in which some of the variation is rational and some of the variation reflects differentially inefficient allocations of economic resources.

B. *Exploring the Relationship Between Costs and Benefits*

Testing which of the foregoing hypotheses best describes the state of affairs in the world of financial regulation would be a daunting challenge. One could imagine sophisticated econometric models that would explore the relationship between regulatory efforts in various jurisdictions and the social benefits they generate. To the extent that one found consistent relationships between efforts and benefits across jurisdictions, that would imply that variations in regulatory efforts were not efficient. To the extent one discovered measurable and persistent country-specific effects—for example, if adding regulatory staff in France had much less social benefit than adding staff in the United Kingdom—that evidence would tend to support the hypothesis that national variations in regulatory effort may be rational, at least in part.

In certain areas, empirical work exploring the relationship between regulatory intensity and observed outcomes has begun. Several recent papers have explored the relationship between the enforcement of insider trading laws and market characteristics (like volatility, ownership separation, and synchronicity) that insider trading laws are supposed to affect. And the evidence is that insider trading laws do have a measurable impact in the predicted directions.⁴⁷ One must recognize, however, that insider trading regulation is somewhat unusual in that one can identify objective market

45 If all countries were identically inefficient, the discussion of regulatory convergence would again be simplified.

46 A further ambiguity about budgetary resources is whether high levels imply a high level of regulatory compliance (as a result of the deterrence) or a low level of compliance, which itself necessitates more budgetary resources. As mentioned earlier, *see supra* note 14 and accompanying text, we do not have good information on comparative compliance rates across jurisdictions, at least with respect to the level of lawfulness. We do have various technical measures of financial performance, such as bid-ask spreads or synchronicity of stock prices, which might fruitfully be compared to regulatory intensity. *But cf.* Jackson & Roe, *supra* note 1 (failing to discern correlations between various technical measures of performance and regulatory staffing and budgets).

47 *See* Beny, *supra* note 13; Utpal Bhattacharya & Hazem Daouk, *The World Price of Insider Trading*, 57 J. FIN. 75 (2002).

characteristics that insider trading regulation is supposed to influence. The effects of most kinds of financial regulation are not so easily observed. Moreover, these effects are not the same as social benefits. The impact of insider trading laws on increased separation of ownership is not a social benefit in and of itself; ownership separation is beneficial because it reduces the cost of capital or increases the investment opportunities of firms. Thus, while we now have preliminary evidence that insider trading enforcement has an impact on market characteristics, we do not have evidence that the benefits of enforcing insider trading laws exceed the costs of enforcing those laws.

Other studies attempt to explore the relationship between financial regulation and broader measures of economic performance. For example, World Bank economists have studied the relationship between different aspects of banking regulation (though not staffing or enforcement levels) on the development, efficiency, and stability of countries' banking systems.⁴⁸ The law and finance literature has done similar work on the effects of various aspects of securities regulation on the development of securities markets.⁴⁹ One could imagine extending both of these lines of inquiry to ascertain the impact of regulatory intensity on these broader measures of economic performance, and indeed, Professor Mark Roe and I have begun this effort in another paper.⁵⁰ The task of divining a clear causal link between regulatory inputs and social benefits is, however, a difficult one, and much work remains to be done before we can hope to make much progress in discerning whether observed variations in intensity across jurisdictions reflect rational responses to unique local conditions or inefficient products of local political conditions.

C. *Living with Under-Theorized Benchmarks*

For the foreseeable future, our ability to distinguish between efficient and inefficient variation in regulatory intensity across jurisdictional boundaries is apt to be incomplete. At best, what we are likely to have are a series of under-theorized benchmarks of regulatory intensity, probably not too different than the preliminary data presented in this paper. Under these conditions, it probably does make sense for regulatory officials around the world to consider whether their own levels of regulatory intensity vary widely from international standards. So, my South Korean inquisitor was likely acting entirely sensibly in seeking general guidance on staffing levels. And today, perhaps German authorities would be well advised to consider whether they are making

48 See James R. Barth et al., *Bank Regulation and Supervision: What Works Best?*, 13 J. FIN. INTERMEDIATION 205 (2004); see also JAMES R. BARTH ET AL., *RETHINKING BANK REGULATION: TILL ANGELS GOVERN* (2006).

49 See Rafael La Porta et al., *What Works in Securities Laws?*, 61 J. FIN. 1 (2006).

50 See Jackson & Roe, *supra* note 1 (finding that budgets and staffing levels are positively associated with robust capital markets).

appropriate choices in terms of staffing, enforcement intensity, and salaries for regulatory personnel as the continental capital markets emerge.

We in the United States might also benefit from comparing ourselves to international standards. As I assumed above, it is possible that the United States has stumbled upon the optimal level of financial regulation and enforcement for its financial markets. It is also possible that the levels of regulatory staffing and even enforcement that we observe in this country are inefficient and excessive. Perhaps local conditions in the United States warrant markedly higher levels of regulatory staffing and enforcement than is found in other developed countries, but perhaps not.

Appendix

Data on Regulatory Costs and Staffing in Selected Civil Law and Common Law Jurisdictions

	Total Regulatory Staff	Total Regulatory Costs	Regulatory Costs Per Staff Member	Total Regulatory Costs Per Billion Dollars of GDP	Regulatory Staff Per Million of Population
Civil Law Jurisdictions:					
Austria	171	\$21.8	\$127,485.4	\$86,852.6	21.1
Argentina	719	n.a.	n.a.	n.a.	18.9
Belgium	391	\$49.6	\$126,764.7	\$164,122.5	38.0
Denmark	170	\$19.7	\$115,882.4	\$92,924.5	31.5
Finland	136	\$16.3	\$120,073.5	\$101,428.6	26.2
France <i>FSA</i>	916	\$130.2	\$142,148.8	\$74,532.5	15.5
Germany <i>FSA</i>	1,319	\$109.1	\$82,682.8	\$45,441.1	16.1
Greece	301	\$10.4	\$34,385.4	\$59,826.6	28.1
Italy	756	\$85.3	\$112,870.4	\$58,245.7	13.3
Japan	1,213	\$142.0	\$117,065.1	\$32,824.8	9.6
Korea <i>Direct</i>	1,648	\$162.5	\$98,626.6	\$268,508.8	34.4
Netherlands	784	\$73.6	\$93,877.6	\$144,031.3	48.4
Norway	179	\$18.4	\$102,793.3	\$83,257.9	38.9
Portugal	534	\$12.7	\$23,689.1	\$84,615.4	52.4
Portugal	534	\$12.7	\$23,689.1	\$84,615.4	52.4
Spain	1,027	\$44.4	\$43,189.4	\$53,056.8	25.0
Sweden <i>FSA</i>	186	\$25.0	\$134,471.8	\$83,372.5	20.7
Switzerland	200	\$25.7	\$128,700.0	\$83,301.0	27.4
Civil Law Averages:			\$90,466.4	\$88,942.1	28.8

Data on Regulatory Costs and Staffing in Selected Civil Law and Common Law Jurisdictions

	Total Regulatory Staff	Total Regulatory Costs	Regulatory Costs Per Staff Member	Total Regulatory Costs Per Billion Dollars of GDP	Regulatory Staff Per Million of Population
Common Law Jurisdictions:					
Australia <i>FSA</i>	1,900	\$214.1	\$112,669.1	\$413,264.9	96.0
Canada <i>FSA</i>	2,209	\$248.8	\$86,694.9	\$148,907.7	71.3
Hong Kong FSA	640	\$105.2	\$164,369.6	\$665,800.8	94.1
Ireland <i>FSA</i>	267	\$46.9	\$175,644.4	\$316,872.0	68.5
Israel	357	\$28.7	\$80,392.2	\$278,640.8	53.3
New Zealand	41	\$5.6	\$135,365.9	\$73,026.3	10.3
Singapore <i>FSA</i>	300	\$44.0	\$146,515.0	\$483,016.4	69.8
U.K. <i>FSA</i>	3,069	\$496.6	\$161,797.7	\$276,787.6	52.0
U.S. <i>FSA</i>	29,924	\$4,633.4	\$154,839.9	\$425,827.5	102.8
U.S. <i>HEJ</i>	38,709	\$5,418.9	\$139,989.9	\$497,984.0	133.0
Common Law Averages:			\$135,365.4	\$342,460.4	68.7

Sources: FSA 2004 Annual Report, Appendix 5; Central Banking Publications, How Countries Supervise Their Banks, Insurers and Securities Markets 2004; Author's Compilations.

