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KEYNOTE ADDRESS

*Henry G. Manne**

This conference on insider trading is perhaps the fiftieth I have attended on the subject in the more than forty years since my book appeared. Some of them were not really conferences—"bloodbath" might be a better term—but this one is different from almost all the others. At those, the weather was usually warm and the reception very cool. This one is the opposite, and it is certainly a far greater pleasure for me. Perhaps cold weather makes for more intellectual integrity.

Actually, and in a strange way, the George Mason Law School in which we are meeting, exists in part because of my book on insider trading. As a result of the unbelievable fury that the book kicked up—which I had not anticipated and was not prepared for—I became completely disillusioned and frustrated with the level of scholarship in American law schools, so much so that a couple of years after the book appeared I left law school teaching—in a sense never to return to full-time law school teaching. I went into administrative work, founded the Law and Economics Center, and from that was led inexorably to the remaking of the George Mason Law School. So the negative response by the rest of the world to that book had some very good effects. On balance I think I got the better deal.

It is hard to describe the state of intellectualism in law schools generally in the 1950s, 1960s and 1970s. It was not just an ignorance of law and economics; it was the whole concept of giving serious analytical treatment to any subject that was thought to be the province of legal educators. Even for those academics for whom law was not natural or given, there was still the idea that it came out of a black box and had to be treated as a given in any discussion. In other words, there was little or no effort to evaluate the social or economic value of any given law, and simple-minded ideology (often far left) was often mistaken for "scholarship." Students in a modern law school like George Mason have a great difficulty imagining how totally intellectually vacuous the law school world was merely forty to fifty years ago. As a result, early in my career, I experienced many years of conferences and articles in which my work was pretty much treated as a joke. There really was not much else they could do, since few if any law profes-

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sors at the time had the background in economics that could allow a more serious discussion.

At any rate, arguing about insider trading ceased to be amusing for me, and I left it for a long time to do other things. As a result, in the best way possible, I have gotten my revenge on what I still consider a know-nothing bunch of pseudo scholars. Even if many real legal scholars still do not agree with my conclusions in the book on insider trading, the agenda I set controls the debate and the methodology is utterly dominant, not merely in the insider trading debate but in anything having to do with securities, corporations, and the law.

But the critics of my book really had a fine old time seeming to make light of my effort, and most of the relevant world seemed to agree with them and enjoy the spectacle. Twenty-five or thirty years ago I thought that the issue had run its course. I did not think there was a great deal more for anyone to say. The sides were pretty much clear. There were the moralists, dominant on one side, and market economics people, dominant on the other side. The subject was then taken up by the empiricists, the technicians in economics. On the other side of the divide, the issue became one for the legal technicians, the parsers of regulatory words and case law. But, as far as the underlying policy issue was concerned, it seemed dead at that point.

Well, I was wrong. I must say that in the last few years there have been developments in economics that reignited my interest in the subject. I would never have thought, a few years back, that in the past two years I would have published an article that was a very important new corrective for the book. Frankly, it is a little embarrassing for me to go back and read the book today because the style that I wrote in forty years ago is not how I would write it today. I was young and naïve and I did not have a good sense for how things that I said would be misunderstood by the outside world. Today I am a lot more sensitive; perhaps deanships do that to you.

Furthermore, there were some aspects of the book, as I now reread it, which were noticeably weak. Some of these weaker points, I concede, my opponents very early on had glommed onto, even if they did not fully understand the real weakness. I think that the discussion in the book on one of the central points, the value of insider trading as a form of compensation to executives, was in principal correct but in practical value almost nil. Over the years, for instance, I tried to develop and tried to get students to develop a model for a formal compensation plan that included an explicit right to trade on information in a company. We could never do it. I could never figure out to whom you would offer such a provision or how you would draft it. But even with that, the idea has considerable vitality and could help inform the issue that a corporation might face if it were allowed to decide for itself whether or not to outlaw insider trading.

But there was another aspect of that discussion that has also been disappointing to me, an aspect that my multifarious critics have never thought even worth commenting upon. Only one or two of the perhaps thousands of

commentaries on the subject has addressed the issue of the distinction between the entrepreneur and the capitalist manager, a distinction that I still believe is at the very heart of the so-called "compensation" issue. For many commentators, perhaps unfamiliar with the economic concept of different "functions," this is not an easy distinction, though it is well known today to the Austrian economists who flourish at George Mason. But it was almost totally unknown when I was writing (except to the very few early devotees of the works of Ludwig von Mises and his student Israel Kirzner). I was perhaps too far ahead of the curve to have expected a calm acceptance of such a very unfamiliar notion. Alas, it remains only rarely understood even today.

Today there is tremendous controversy about executive compensation; it is the number-one issue in the corporate field right now. It was also a big subject forty, fifty, and sixty years ago, but in a very different way. Schumpeter's famous book, *Capitalism, Socialism, and Democracy*, had popularized an idea that was very common among economists at the time—that there was a fundamental flaw in the structure of the modern corporation because it did not provide any way really to compensate for entrepreneurial or innovative activity. Schumpeter said that, as a result, the managers of corporations would become highly bureaucratic, that large corporations would be in a sense like government agencies, that the motivation that really fired up the classical entrepreneur or small businessperson simply could not exist in the large corporation, and that eventually these large corporations would either fold or become nationalized. Well, he was certainly wrong in that prediction and I argued in the insider trading book that I also thought he was wrong in his explanation and analysis. I showed that there was a way of compensating these people, a form of compensation that meshed with what we wanted to reward, namely entrepreneurship and innovation. That, of course, was gains from stock trading on the news of the innovation before it was made public.

About that time, in the 1960s, the tax laws changed to heavily encourage the use of stock options, and there is a discussion in the book comparing the use of insider trading to the use of stock options as appropriate forms of compensation for entrepreneurial activity within the large, publicly-traded corporation. I have had occasion in the last two years to develop that same argument again in an editorial in *The Wall Street Journal*. I think it is a very strong one and, to this day, I simply do not understand why the economists and the serious scholars in the insider-trading field have neglected that aspect of the subject. Perhaps part of the reason is that I misled them; I had said that this ought be part of the general compensation package of corporate managers, and I should have been much more careful about that. Note, however, that this point goes to the legalization of insider trading and not to the point of drafting a compensation agreement. If one reads my earlier work sympathetically, which no one does of course, I think it is clear that I am really talking about the entrepreneur, though the full

discussion was not carefully developed. Nonetheless, that important point, that ought to be part of the debate today about stock options and compensation, is never heard.

One issue that I addressed in the book, indeed that I had an entire chapter on, relates to insider trading by government officials. This too is suspiciously ignored in the public discussion of insider trading. To me this is particularly interesting and disappointing because it demonstrates how often people write book reviews and comment on books they have not carefully read. I explained in this chapter why the arguments that I used to favor insider trading for corporate insiders did not hold for government officials and why I thought that there should be very strict rules against insider trading by government officials, including elected representatives. I also discussed how much opportunity government officials have for insider trading and why it would be even more endemic there than it would be in private company trading. It is certainly understandable, even if not defensible, that government officials have not pursued that idea quite as assiduously as they might have. After all, as Gordon Tullock explained many years ago, information flows, regardless of how or whether the information ultimately gets used in the stock market, is the lifeblood of Washington, and much of this information has significant stock price impact. And yet, endemic as this practice must be, I do not know of a single analytical article that has been written on that subject.

Another disappointment was a sociological aspect of the book. Only one reviewer to my knowledge picked this up, thought it was an important point, and no one has developed it further. And that is the question of how people relate to one another socially in their conveyance of valuable information. I mentioned in the book that this might explain something as homely as selection of members in exclusive country clubs: that members might only want people as fellow members who are going to give them something valuable in exchange for something of value that might be given to them. In other words, I suggested, there was a "social" market for information, just as we might say there is a market for marriage mates. Some aspect of this exchange notion is probably involved in selection of colleagues, fraternity brothers, and neighbors. I still think that is something sociologists should be interested in. But that has not developed either, perhaps because they have not yet, aside from a few domestic relations areas, been imbued with economic notions of exchange in social relationships.

Two other major economic arguments were made in the book: one was that no one trading against an insider in the market was really hurt by the insider trading. No one has ever been able to disprove that proposition. The other was that insider trading always pushed the price of the stock in the correct direction and made the stock market more efficient. That is, informed trading always makes the price more reflective of the actualities of the corporate world. Both those notions have been reasonably well-received, but there was an aspect of that last one that I think deserved a

great deal more attention than it got. How significant was insider trading in making the market function efficiently, and how important was that stock market efficiency in a great many other things: capital allocation, the market for corporate control, compensation programs for managers, and a number of things of that sort that relied on accurate pricing of stocks to function well? Now, I know those measurements are very difficult. Nonetheless, there has not been a great deal of work done on any of these questions.

Now, there is one last point that has not been studied as assiduously as I think it should be. At the time I wrote the book, I had a part-time colleague in the law school of George Washington where I was then teaching, his name, Manny Cohen. He was then the number-two man at the Securities Exchange Commission and later became perhaps one of the most active and celebrated of all chairmen in the history of the Commission. I knew Manny—we frequently joshed with each other—and he knew I was preparing a book on insider trading. He readily agreed that he would review it when it appeared. Apparently someone (but apparently not Cohen) at the SEC actually did read it, because it occasioned a meeting of the top brass of the SEC, where it was decided that no one in the Commission could review the book, or cite it, or mention it. And that was part of a larger program of the SEC that was reported to me many times over the years: no staff member at the Securities and Exchange Commission would be allowed to cite any work written by Henry Manne. This boycott was one of the proudest accomplishments of my life.

Now, as a result of the insider trading book and another little book I did a few years after that called *Wall Street in Transition*, an overview of the economics of securities regulation, the SEC, for the first time in its then thirty-eight year history, felt under attack. It had until these events been a charmed agency, thought to be staffed by real experts and beyond scandal. This is still true to some extent today—and just as fallacious—as it was forty years ago. For all their feigned expertise and morality they felt very threatened by my work, and they decided they had to do something about it. As a result they embarked on a campaign both of making me invisible and of vilifying the concept of insider trading. The latter may have been the most successful propaganda campaign by a regulatory agency that we have ever seen in this country.

In the 1950s, fifteen years before the book, there was no such phrase as insider trading in common parlance. There was talk about insiders in the stock market, but it was always either laughed at as something that we all know about but no one mentions. There was certainly no moral indignation at the mention of insider trading. There was no righteous complaining of the sort that is seen today that this is a grievous, dangerous and sinful activity. The SEC, in an enormously self-serving campaign, changed that, undoubtedly the most successful campaign they ever engaged in. They have succeeded in making the very phrase insider trading such a pejorative term that people shudder when they hear it. There was an analogy in medicine

when the term "cancer" used to be whispered in polite company. That is what the SEC accomplished with the phrase insider trading, and no one has ever really studied how they accomplished this. It would be a great topic for a Ph.D. thesis.

As I said earlier, I eventually got over my distaste for talking about insider trading, and, of late, it has become very intellectually exciting again. A couple of years ago I read John Suroweicki's book, *The Wisdom of Crowds*. He is a finance writer for *The New Yorker* magazine and the central thesis of *The Wisdom of Crowds* built on an important Hayekian notion, that market price is some sort of an amalgamation of bits and pieces of preference and knowledge that people have even though the market participants involved are disparate, independent, and unknown to each other. Somehow it all gets aggregated into something called the market price.

The Wisdom of Crowds, just to give you a simple example, starts the books with a famous episode of a contest to guess the weight of an ox after it was butchered and dressed. There were eight hundred guesses, none of which apparently came very close to the correct answer, but the average of the eight hundred guesses was correct to the fourth decimal point. That was in 1906; statisticians have known about this and done work using this understanding, but the economists have not. Indeed Hayek himself did not notice the relation that the wisdom of crowds notion had to his argument about how price emerges from many participants in a market making their interests felt. I thought that the relation between these two notions was pretty clear and have now written on this subject. Another thing that Surowiecki dealt with in the book, that you will probably hear about today from Robin Hanson, is the development of the economics of prediction markets, which is related to the notion of wisdom of crowds but which is rarely related to the formation of price.

Well, I looked at these new ideas (new at least to me) and realized that they had something to do with insider trading. I began to put the various ideas together and that resulted in my recent article on insider trading "Insider Trading: Hayek, Virtual Markets and the Dog that Did Not Bark." I am not going to summarize that article now, but others may comment on it later today. Now the dog that did not bark is the part that I will talk about because one of the mysteries that I had noticed about insider trading for many years, and which I alluded to earlier, is that prior to the SEC's disparagement campaign there was generally silence in the business community on the subject. There was no question that insider trading in the stock market was as much of an everyday occurrence as breathing and eating. And we know that even today in Japan it is a way of life, though perhaps a little less so today than it was five years ago. Until ten or fifteen years ago, when the EU released its directive that every member country should have a law against insider trading, (a move incidentally heavily lobbied for by the SEC), no one had ever said much about it.

If you look back further into the 1950s, 1940s and even back to the 1920s, when we first had a truly large-scale popular equity market in the United States, you cannot find any serious discussion or condemnation of insider trading. There was a critical but very naive law review article in the 1914 *Michigan Law Review*, and Berle and Means, in their classic book in 1932, mentioned insider trading in passing as one of the unfair advantages that corporate managers had. There was some talk about insider trading at the time the securities laws were being adopted in 1933 and 1934, but serious consideration was pushed aside when Senators discovered that a law against the practice might apply to them. Section 16b of the Securities and Exchange Act of 1934, the so-called short-swing profit rule, was not a significant insider trading provision, as has now come to be generally recognized. There had been a flat prohibition against insider trading in the first draft of the Securities Exchange Act of 1934, but in the first hearings held on that Bill a member of the Senate Judiciary Committee asked a staff member, "Does this cover members of Congress?" The answer was "yes," and that provision of the first draft disappeared from the second. It never showed up again. Now, later on, after the courts had allowed insider trading to be outlawed by SEC Rule 10b-5, and after the SEC had conducted its vilification propaganda campaign, Congress, with their usual show of courage, acknowledged in later legislation that insider trading was against the law even though Congress had never made it against the law.

The silence in the business community, nonetheless, was mysterious. If all of these arguments—not only the economic arguments, but the moral and ethical arguments—were as strong as most people seem to think they are today, why did no corporate manager, large shareholder, or corporate official in the world complain about it? That was the mystery I set out to solve, and that was the dog that did not bark. Remember Sherlock Holmes said that it was the dog's silence that gave him the information of what was going on in the fixed horse race. Well, it was silence that told me that managers and large shareholders (who have a very difficult problem monitoring the managers in corporations they are heavily invested in but do not directly manage), have a very significant interest in the results of insider trading.

That this silence in the business community about insider trading could be turned into an explanation of a real benefit from insider trading I unfortunately missed back in 1964. Basically the argument is that managers of corporations use changes in stock price as a way of getting information that they cannot get any other way and that large stockholders needed this kind of informed market pricing to monitor the behavior of managers whom they could not otherwise control. Most of the curriculum of business schools is fundamentally about the problem that decision makers in corporations have in getting reliable information on which to base new decisions. If you could solve that problem easily, the rest of management would be comparatively easy.

That is why I concluded that if insider trading was seen as a valuable device for corporate managers and for large shareholders, they would approve of it and keep quiet about it. That is exactly what I think happened. This is not to say that insider trading is the only device for accomplishing this, merely that it is an important device and presents a strong new argument for insider trading.

So after forty years I think there really was something more to be said about the subject. But it sure surprised me that I would be the one to say it.

Thank you very much.

KEYNOTE ADDRESS

The Honorable Kathleen L. Casey[*]

Thank you Kristina for that kind introduction; and thank you Dean Polsby, Dean Manne, and The George Mason University Journal of Law, Economics and Policy for inviting me to join you in today's conference. It is a distinct honor to be able to return to GMU and participate in a forum that continues to distinguish this school as a national thought leader. Before I begin, I must remind you that my remarks represent my own views and not necessarily those of the Securities and Exchange Commission or my fellow Commissioners.

Were I not an alumna and friend of this forward-thinking school, I might stand before you—as a constitutional officer sworn to enforce the insider trading laws—with some trepidation. But I know that I join you as a friend because I share your belief that this debate, like any debate that demands an honest evaluation of the economic value and costs of a rule, is an important one. I would like to direct my remarks today to three points. First, the tremendous value I place on the economic analysis of the law, and how the GMU Law education, which embraces this interdisciplinary methodology, has shaped my consideration of the law; second, how it is a critical construct to understanding and informing important policy decision making; and, finally, how this kind of analysis applies—albeit to a much lesser degree than today's conference participants might hope—to the enforcement of our insider trading laws.

Throughout today you have heard and will continue to hear arguments that insider trading effectively prices stocks, or efficiently incentivizes or compensates executives. Regardless of whether or not you agree with these arguments, what I think is so important about today's topic is not only that the debate continues to occur after forty years, but that it continues to evolve and grow from its roots in Dean Manne's practically lone voice. Despite decades of fairly consistent policies proscribing insider trading, today's conference assembles several serious arguments and sets of data that seek to scrutinize and question the rationality and effect of our insider trading laws. The contributions of Dean Manne and others to the scholarly debate over insider trading are transcended, however, by the analytical con-

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[*] Kathleen L. Casey was appointed by President George W. Bush to the U.S. Securities and Exchange Commission and sworn in on July 17, 2006. Her term expires in 2011. Prior to being appointed Commissioner, Ms. Casey spent thirteen years on Capitol Hill. Commissioner Casey is a member of both the Virginia and District of Columbia bars, and received her J.D. from George Mason University School of Law in 1993. She received her B.A. in International Politics from Pennsylvania State University in 1988.

struct it embraces and which now informs the consideration of many areas of law and regulation. So to me, whether these scholars are right or not is somewhat beside the point: the real point is that policymakers must rigorously analyze whether we are making the right choices in light of the economic realities of the market.

Turning to my own experience, the George Mason law and economics education has truly aided—and shaped—my career. Indeed, I may present an interesting case study for Professor Padilla who asks to what extent the insider trading debate influences policymakers. For a little over thirteen years after graduating from GMU law school, I worked on Capitol Hill under the leadership of a great legislator, Senator Richard Shelby of Alabama. I was fortunate to gain experience in a variety of different positions, but finally my career on the Hill culminated as Staff Director and Counsel to the Senate Banking, Housing and Urban Affairs Committee. Through this experience, I developed a fair knowledge about both public policymaking and the political process. The George Mason education—with its emphasis on considering efficiency and of stopping to think about a decision's consequences rather than just accepting the popular choice—provided me excellent analytical tools as I sought to help the Senator shape our nation's policies. Of course, political realities can often carry the day on Capitol Hill. But having been schooled in applying economic analysis to the law, I believe that I was well prepared to serve in my various roles advising the Senator during the consideration and debate of many important policy issues.

Now, as an SEC Commissioner making decisions about our securities rules and enforcement activities, I can proudly report that George Mason's philosophy, provocative questions from Dean Manne and others about our markets, influence my thinking and choices. And I am not alone. In the last several years, graduates of George Mason have moved into many influential positions throughout Washington. Some enjoy high-profile positions within the administration and are clearly influencing policy in the Executive Branch. In many instances, these policies bear the stamp of a GMU-type economic analysis. But the school's influence, and the school of thought's influence, reaches further and in more subtle ways. All over the Hill, lawmakers employ Mason graduates to advise them, manage their staffs, and negotiate policies on their behalf. I was just one example of that. Policy offices in many federal agencies—the Department of Justice, the SEC, and the Labor Department, to name a few—are staffed by Mason graduates. Federal and state judges are counseled by clerks hailing from Mason; indeed, the Supreme Court finally has a Mason graduate serving Justice Thomas.

So what are these Mason graduates doing to bring economic analysis of the law to life? They are writing laws, drafting regulations, recommending judicial opinions—all against the backdrop of a legal education that disciplined them to think about the economic consequences of decisions.

For example, they are asking questions like: How much should a policy dealing with criminally indicting corporations consider the potential costs to investors if the indictment causes the company to crumble? And what effect would fewer market participants have on consumer choice or market competition? Does director independence on mutual fund boards improve fund performance for investors? At what level should regulators set auditor scrutiny in order to achieve results that allow investors to make educated decisions about share value, without imposing costs that outweigh these benefits? Some of these questions I have personally asked—either while on the Senate Banking Committee or in my current role on the Commission. Some of these questions I continue to ask.

As you may know, the SEC has, in recent years, been criticized for its perceived failure to analyze the economic impact of its decisions before imposing additional costs through regulation. Further, several court decisions have checked the SEC's failure to engage in adequate cost benefit analysis as is required under the law. I believe these decisions and criticism offer the SEC an opportunity to more fully incorporate economic analysis as a formal guide to inform our decision making rather than as a purely mathematical exercise or postscript to a predetermined policy outcome. Of course, there will be times where attention and pressure from the Hill, or the press, or other sources, drive a result designed to achieve investor confidence—but that does not square with an honest economic analysis. Indeed, policy decisions can often be driven by popular dynamics that draw major issues from minor ones, adopt assumptions as conclusions, and accept anecdote as broad truth. That is why discussions such as [today's conference] are so important.

Dean Manne and the other scholars speaking today remind lawmakers and policymakers like me that we must analyze, rather than just accept the common wisdom. Or as Dean Manne has noted, we must ensure that logic is not lost to emotion. In the case of the Commission, we must hold steadfast to the notion that the politically expedient decision is not necessarily the right decision for investors in the marketplace. We must question whether the result we seek will achieve the right balance between benefits and costs—because they will ultimately guide the law's true effectiveness for the investor and our markets. Indeed, there is no greater irony, which comes at a cost to the market and investors, than when a popular end ignores economic reality and drives adverse policy results.

In order to fulfill one of our primary missions—to protect investors—it is important that we consider whether the costs imposed upon the market, which are ultimately borne by investors, achieve the sought-after benefits. Where once some questioned whether economic analysis ran counter to the interests of investors, today it is clear that those interests are aligned more often than not. So a cost-benefit analysis is critical to thinking about our market rules. It is also critical to our country's ability to continue to offer the most vibrant, deep, and liquid capital markets in the world, that regula-

tors measure the benefits of proposed rules or enforcement policies against the costs placed upon the market. If the costs get too high, market participants may seek less costly alternatives and invest elsewhere—which in today's global marketplace is an increasingly viable and attractive choice. In the end, this competition is a healthy check, which ensures, in my view, that we affirmatively seek to consider the effectiveness and efficiency of our laws and regulations.

Over the past several years, there has been growing comment and concern that we may be losing our competitive edge as the world's leading financial marketplace. Several commissions and studies have recently been undertaken to look at our legal and regulatory landscape and seek to inform policymakers and the public of how it affects our competitiveness. As much as they prompt vigorous discussion and critical review, they will have served an important purpose. I know I intend to give their findings and recommendations thoughtful consideration. Among the areas of focus illuminated by these studies is whether the benefits sought by post-Enron and Worldcom legislation have imposed undue costs that have hindered the nation's global competitiveness. Oftentimes, it is not the law itself, but the implementation of it that can be faulted in this regard. I have the benefit of having worked in the Senate when the Sarbanes-Oxley Act was considered and passed, and now, as a member of the SEC, the responsibility of seeking to ensure that it is implemented effectively and efficiently.

While there continues to be a range of views assessing the overall benefits and burdens associated with the Sarbanes-Oxley law today, I believe one thing remains undisputed. And that is, no one anticipated, by effect or design, that the internal control provisions of Section 404 of the law would result in such a costly web of compliance. Indeed, it is a modest enough looking provision. All of about a page in text, modeled largely after the internal control and attestation requirements of the Federal Deposit Insurance Corporation Improvement Act of 1991, or FDICIA. While certainly not the most rigorous form of analysis, the Congress looked to the fact that internal control reporting had been required for depository institutions under that law for many years to conclude that it would not cause a significant new burden. Thus, while the spirit and the letter of law did not contemplate such a costly and burdensome regime, Section 404's implementation has undoubtedly facilitated such a result. Section 404 has been roundly criticized, and is now commonly viewed, particularly abroad, as emblematic of an excessive and burdensome regulatory environment. The SEC and the PCAOB are now faced with attempting to alter this market reality, which has largely been attributed to a lengthy, highly prescriptive auditing standard (Auditing Standard 2 or AS2) and a heightened compliance and legal risk environment. I believe positive efforts are being made to adopt a more principled, risk-based approach that allows greater judgment and flexibility so that issuers and auditors can focus on those controls necessary to adequately address the risk of a material misstatement in their

financial statements. But we will only be able to measure our success, ultimately, by whether these new reforms are sufficient to alter the behavior our policies have driven. And I believe that will require an ongoing assessment and determination by the Commission of whether we have achieved our goals. Our efforts to realign the costs and benefits of Section 404 of the Sarbanes-Oxley Act, and the broader public focus on the impact our regulatory and legal environment is having on our ability to maintain US competitiveness, are positive illustrations of why we must seek to appreciate the economic consequences, market realities, and costs and benefits associated with our rules and laws.

In the case of insider trading, Congress, my predecessors at the Commission, and the courts, long ago made the judgment that investor protection requires preventing insider trading. To the disappointment of some in this room, but likely to the surprise of no one, I will not make news today by quarreling with this judgment. I am responsible for enforcing the law and I take that duty very seriously. Even as today's participants would argue for a more fundamental application of economic analysis to the underlying policy supporting our insider trading laws, they can at least take heart that economic and cost/benefit analysis does play some role in our enforcement of the law. As many here today correctly point out, insider trading is expensive and difficult to police. Indeed, much insider trading activity likely never gets detected, leading to potential inequities and inconsistencies in enforcement. Insider trading investigations are resource-intensive; they rely upon sophisticated detection software, time-consuming trading analysis, and often cumbersome fact investigations. Those cases that do not result in settlements are often difficult to prove in court, particularly in the area of proof of intent. The trial of even a relatively small insider trading case can divert Commission lawyers from other matters for weeks. As is the case in other Enforcement decisions, these opportunity costs are important considerations as we decide how to allocate, or continue to allocate, precious resources. The Commission is responsible for enforcing the insider trading laws, but must also enforce other securities rules and regulations, and must devote resources to our very important rulemaking function.

The Commission must also consider whether the level of activity in its Enforcement program is achieving the appropriate benefits in the marketplace. As some commentators here today have noted, the mere threat of an Enforcement action may prevent some amount of insider trading. We must ask how many and what types of additional cases we should be bringing, measured against the cost of bringing those cases in light of our budgets and other priorities in order to achieve investor confidence in the marketplace. I have no doubt that today's conference and thoughtful articles will continue to spur vigorous debate about the value and effect of our insider trading laws.

To Dean Manne, Dean Polsby, and the George Mason Law School, I commend you again for your leadership and scholarship, which are influencing and changing how people understand, consider and practice the law. Thank you again for inviting me to join you today and for providing me this opportunity to speak with you.

HOW DO WE THINK ABOUT INSIDER TRADING? AN ECONOMIST'S PERSPECTIVE ON THE INSIDER TRADING DEBATE AND ITS IMPACT

*Alexandre Padilla**

ABSTRACT

This essay assesses what impact, following Henry Manne's publication of *Insider Trading and the Stock Market*, the insider trading debate had on how we think about insider trading. Using economic analytical tools, Manne's analysis shed new light on insider trading and gave a new breath to the insider trading debate. Manne's work opened venues to new analyses on insider trading from lawyers, economists, and financiers. This paper attempts to see if Manne's work has contributed to the change in lawyers' views toward insider trading but also the views by policymakers, lawmakers, and the general public. First, I briefly review Manne's contribution and influence in the literature. I summarize the results of a survey I conducted among law and economics scholars. Second, I attempt to measure Manne's influence beyond the law and economics field. How did Manne's work influence lawyers and economists who are not specialized in law and economics and, more particularly, insider trading? How did Manne's work influence policymakers and lawmakers? Has Manne's work had any impact on the general public's opinion on insider trading? Finally, I provide some additional concluding remarks.

I. INTRODUCTION

This paper attempts to evaluate how big of an influence Henry Manne's work on insider trading has been not only on the literature, but also beyond—among lawmakers, policymakers, and the general public.

When Henry Manne published *Insider Trading and the Stock Market* in 1966, his work initiated a revolution in the way insider trading was studied. Using economic analytical tools, Manne's analysis shed new light on insider trading and gave a new breath to the insider trading debate.

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Manne's work opened venues to new analyses on insider trading from lawyers, economists, and financiers. In this paper, I attempt to measure to what extent Henry Manne's work has influenced the literature on insider trading and how far his influence has reached. More particularly, I try to see whether his work changed lawyers' views on insider trading but also the views of policymakers, lawmakers, and the general public.

While his contribution is modest, it is necessary to the extent that insider trading has significant economic-policy implications. Insider trading is the most recognizable and publicly-known form of securities fraud. In addition, insider trading has helped advance the careers of some well-known politicians over the last decades.[1] However, even though insider trading is heavily regulated and severely sanctioned, a consensus remains to be achieved among legal and economic scholars with regard to the desirability to prohibit insider trading. The absence of such consensus weakens the case in either sense to affect current economic policies on this subject. Given that, at the time, Henry Manne's work was clearly critical of the state of the literature on insider trading and challenged the conventional wisdom that insider trading had to be regulated, it is interesting to see how much impact his work had on the literature and the debate that ensued. More importantly, it is important to see what direction the debate has taken over time and if the current perception on insider trading among lawmakers, policymakers, and the general public has evolved following Manne's work and the ensuing debate. The fact that insider trading is still subject to government regulation does not mean that the rationale for regulating insider trading has not evolved. In other words, by assessing Manne's influence, I will be able to indirectly evaluate the rationale for the current regulation.

In Section II, I briefly review Manne's contribution and influence in the literature. I summarize the results of a survey I conducted among law and economics scholars. In Section III, I attempt to measure Manne's influence beyond the law and economics field. How did Manne's work influence lawyers and economists who are not specialized in law and economics and, more particularly, insider trading? How did Manne's work influence policymakers and lawmakers? Has Manne's work had any impact on the general public's opinion on insider trading? Finally, I provide some concluding remarks.

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[1] For example, there is little doubt that then-United States Attorney in Manhattan Rudolph W. Giuliani got elected Mayor of New York later in his career because of his hard stance on white collar crime. He prosecuted and punished many white collar criminals, that is to say, insiders, such as Milken, Boesky, Levine, and Siegel in the mid-1980s.

II. HOW DO LAW AND ECONOMICS SCHOLARS THINK ABOUT INSIDER TRADING?

This section attempts to summarize what influence Henry Manne's work on insider trading had on the law and economics community and how his work has redirected the insider trading debate toward logic and rigor and away from emotions and relativism. I first briefly discuss Henry Manne's contribution and then assess the influence of his work on the insider trading debate. Finally, I discuss a survey to assess how Manne's arguments have survived the criticisms endured during the last forty years.

A. *Henry Manne's Work on Insider Trading*

Before I analyze how big of an impact Henry Manne's seminal treatise, *Insider Trading and the Stock Market* (1966), had on the legal community and beyond, I shall briefly summarize Manne's main arguments and goals.[2]

Manne's seminal work starts with a simple observation: insider trading has never been subject to a scientific, rigorous, and logical analysis. According to Manne (1966b, 113), economists did not pay attention to the issue, and lawyers were content to make a legal analysis of insider trading through case analysis and research, or were too incompetent to engage in a serious scientific analysis of the subject. There was unanimous dogmatic agreement among commentators, lawmakers, and policymakers that "insider trading is a sin, and the war against it is a holy one" (Manne 1966b, 113).[3] *Insider Trading and the Stock Market* can be viewed as an attempt by Manne to put back some sense and analytical rigor into a debate where "logic has been totally lost to emotion" (Manne 1966b, 113).

Henry Manne's work rests on one idea. Manne's idea was that when one takes the time to *rigorously* and *scientifically* analyze insider trading, it is no longer an apodictic truth that insider trading is harmful to the society. Therefore, it does not necessarily follow that we should come down with "hobnail boots" on insiders, to use John Shad's expression when he took office in 1981 (Henry 1986, quoting then-chairman, John Shad).

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[2] As the arguments developed by Manne are already well-known, there is no need to engage in a detailed analysis of his thesis. For a detailed overview of Manne's arguments, see Manne (1966a, 1966b), Bainbridge (2000, 777-81), Bainbridge (2001, 65-70).

[3] Some immediate reactions to his work illustrate perfectly Manne's observation. As we will see below, even today, the term "insider trading" still generates a lot of emotions and dogmatic reactions in some people.

To support this idea, Manne advances two seminal arguments that, as we will see, will revolutionize the debate on insider trading.[4] The first argument relies on the informational role of prices and informational efficiency. The second argument relies on the entrepreneurial role played by corporate managers and how insider trading could be used to compensate those insiders for their entrepreneurial activities.[5]

To put it in simple terms, Manne argues that insiders, by trading on nonpublic material information, contribute by improving the informational efficiency of stock prices. The argument recalls Hayek's (1945) "The Use of Knowledge in Society."[6] Hayek believes that prices are crystallized pieces of information providing signals to market participants about where to allocate means of production. Similarly, securities prices could be seen as signal mechanisms to inform investors where to allocate capital that will be used to produce goods and services. The more accurate those prices are, the more likely market participants will invest their capital in the correct lines of production. According to Manne, insiders, by trading on nonpublic material information, are going to contribute by moving securities prices toward their true value. Securities prices will move toward the value market participants will give to the securities "if all information relating to the security had been publicly disclosed" as a result of insider's trades (Bainbridge 2000, 777). Therefore, investors benefit from this increased efficiency in the sense that they will be more likely to invest their capital in lines of production which are valued by consumers and the society at large. Overall, the society at large benefits from insider trading.

The second argument advanced by Manne, suggesting that insider trading may be used as a compensation scheme, is even more provocative than the first argument. More exactly, Manne argues that corporate entrepreneurs should be compensated by being allowed to trade on the material nonpublic information that they contributed to create. Profits realized through the use of the material information those entrepreneurs created act as an immediate compensation for their entrepreneurial activities. In addition, as Manne (1966b, 117-18) explains, compared to other compensation schemes, insider trading is far superior to bonuses or stock options because price increases resulting from public disclosure of the information provides, even though imperfectly, a comparatively accurate measure of the value of the information created by the entrepreneur. By allowing the entrepreneur

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[4] Bainbridge (2000, 777) goes further and considers that Manne's work literally revolutionized the economic analysis of corporate law. While Manne is more famous among lawyers for his work on insider trading, economists know him more for his work on the market for corporate control (see, e.g., Manne 1965).

[5] Another argument advanced by Manne (1966a, 1966b, 2005) is that the practice of insider trading does not harm long-term investors or, at least, not as much as "pure" speculators who try to "beat" the market.

[6] Actually, Manne recently published a paper where he uses Hayek's seminal paper to justify this argument to deregulate insider trading (see Manne 2005).

to profit from this information before it being disclosed to the general public, he can recover the value of his discovery. According to Manne (1966b, 119), compensating entrepreneurs for their innovations by allowing them to inside trade will stimulate even more innovations on the part of those entrepreneurs. Manne raised the same idea recently in his article, "Options? Nah, Try Insider Trading" (*Wall Street Journal*, August 2, 2002, A8).

As Bainbridge (2001) discusses, "it is only a slight exaggeration to suggest that Manne stunned the corporate law academy by daring to propose deregulation of insider trading" (Bainbridge 2001, 65). The traditionalists' response was immediate and vitriolic (see, e.g., Schotland 1967; Mendelson 1969; see also Manne 1970). Ironically, some of the ensuing reactions to Manne's publication of *Insider Trading and the Stock Market* illustrate perfectly his original point that "logic has been totally lost to emotion."[7]

B. *The Insider Trading Debate: Retrieving the Lost Logic*

Whether Manne is right or wrong does not really matter for this analysis. What really matters is that Manne's analysis shed new light on insider trading and gave a new (long-needed) breath to the insider trading debate. Manne should be credited for "helping stimulate the outpouring of important law and economics *scholarship* in corporate law and securities regulation" in the following decades (Bainbridge 2000, 777, emphasis added). By challenging those scholars to find analytically sound arguments to counter his thesis, those who felt that insider trading should be prohibited find that Manne forced them to move away from an emotion-based dogmatic argumentation toward a *value-free* scientific argumentation if they wanted to prove him wrong. The debate that ensued between the pros and cons of insider trading quickly grew to dramatic proportions. A very prolific literature emerged that went beyond just trying to prove that Manne was right or wrong.[8] More importantly, most of this prolific literature, as Manne wanted it to, takes place in the language of economic sciences.[9]

While for quite some time most of the literature on insider trading following Manne's work was devoted to support or deconstruct his arguments,

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[7] However, it is difficult to tell whether such hostility toward Manne's work was due to the fact that he dared to propose to deregulate insider trading or that he argued that "lawyers do not have the skills to develop a careful economic analysis of the subject" (Manne 1966b, 113).

[8] Bainbridge (2000) lists 271 references on insider trading. A simple search on JSTOR© generates about 127 articles with insider trading in their title. A search on UMI dissertation express generates about 40 U.S. and Canadian dissertations on insider trading. Obviously, much more publications and dissertations have been written on insider trading.

[9] As Bainbridge (2001, 65) explains, even those who argue that insider trading is an issue of fairness spend most of their time using economic references to explain their position whether it is a pro or con insider trading position.

modern literature has largely expanded the analysis beyond those two key arguments. Moreover, a large portion of this literature has become more applied and empirical than theoretical. Most of the theoretical literature is devoted to legal philosophy, such as defining insider trading and analyzing new case law, or the implications of new laws and regulations affecting, directly or indirectly, insider trading. Others have attempted to develop more or less complex mathematical models to explain why, under some assumptions and circumstances, Manne's arguments do not work. One of the most attacked arguments in Manne's work was the "insider trading as an efficient compensation scheme" argument (see, e.g., Easterbrook 1981, 3-24; 1985, 81-99). Also, public choice models of regulation have started to make their entry into the debate as well (see, e.g., Haddock and Macey 1987, 311-52). While those models have made the debate on insider trading much more rigorous and analytical, they were lacking the same empirical research that Manne's work was lacking as well, which would make the analysis even more rigorous and convincing: empirical evidence.[10]

Today, empirical works constitute most of the literature on insider trading because empirical evidence is always a more convincing tool when it comes to pronouncing normative conclusions. The empirical literature is quite diversified and addresses all aspects of the insider trading debate. Some have attempted to study whether insider trading does improve the information efficiency of stock prices (see, e.g., Fishman and Hagerty 1992). Most of the results are controversial for the simple reason that it is difficult to access data when the practice is illegal. Other empirical studies have attempted to measure the impact of insider trading on the cost of capital,[11] on stock market liquidity and ownership concentration,[12] or on the bid-ask spread.[13] Another set of empirical literature has been devoted to the effectiveness of insider trading regulations, showing that insider trading laws are largely ineffective in preventing insiders from trading on the basis of nonpublic material information in general and around major corporate events.[14]

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[10] Patterson (1967) in her review of Manne's *Insider Trading and the Stock Market* was probably the first economist to suggest that even if Manne is right, "much more empirical research" is needed (Patterson 1967, 971-74).

[11] See Bhattacharya and Daouk (2002) for an example showing that the cost of equity only decreases after the first insider trading case has been prosecuted.

[12] See Beny (1999) for an example showing that weaker insider trading regimes have, on average, higher ownership concentration and are less liquid.

[13] See Manne (2005, 167-68) for references for this literature.

[14] See Bettis, Ducan and Harmon (1998, 53-57) for a survey of this literature. Interestingly, the recent Congressional hearings held in September 2006 on how widespread illegal insider trading is and whether there is adequate criminal enforcement were supposedly organized following a study conducted by Measuredmarkets Incorporated, which found that 41% of the companies receiving buyout bids exhibited abnormal and suspicious trading in the days and weeks before those deals became public. Measuredmarkets concluded that these unusual activities most likely involved illegal insider trading (see

There is not enough room to discuss in detail every aspect of the insider trading debate, but one can easily see that Manne's plea for more logic and less emotion in the study of insider trading has largely been heard by the community of lawyers and economists. Even though it is reasonable to say that most of the literature tends to show that insider trading can have significant negative effects at several levels, this literature has clearly adopted the standards that Henry Manne wished for when he started to study insider trading.

C. *So What Do You Think About Insider Trading?*

As we have seen, it is without a doubt that Manne's work has significantly influenced the way insider trading is being studied in contemporary literature. Even though a significant part of the literature is still devoted to case analysis and legal philosophy, the economics of insider trading today comprises most of the literature, and a significant part of this economic literature is increasingly empirical. However, most of the literature very rarely pronounces economic-policy conclusions, and it is fair to say that Manne's main intent was to affect the conclusions that law and economics and insider-trading scholars may have had before he published his seminal treatise. In an attempt to assess what perspective the law and economics community takes when it comes to develop economic-policy conclusions regarding insider trading, I conducted a small survey (see Appendix 1, *infra*). Another implicit goal of this survey was to see how well Henry Manne's pro-insider-trading arguments survived the debate.[15]

The questionnaire was sent to two mailing lists, the George Mason University Law & Economics mailing list and the Mises List, and to over two hundred lawyers and economists at three universities: the University of

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Senate Judiciary Committee 2006a, 2006b; see also G. Morgenson, "Whispers of Mergers Set Off Bouts of Suspicious Trading," *New York Times*, August 27, 2006, A1). While this is not the right place to discuss this question, one could ask how the government can justify insider trading prohibition on the basis that insider trading discourages non-insiders from investing in the stock market if this prohibition is ineffective and investors do not seem discouraged from investing in the stock market.

[15] In his comments, Professor Lloyd Cohen (2003) states that, when confronted with complex issues, ambiguous from a moral and legal viewpoint and often not easy to understand, people tend to use metaphors and similes to pronounce their normative conclusions. Most often, as Cohen (2003) argues, those metaphors and similes are often misleading (Cohen 2003, 361). To some extent, Manne's work can also be seen as an attempt to educate people in the legal community, and those outside, so they can develop normative conclusions not based on such erroneous metaphors. Historically, it might explain in part why courts have moved away from the "level playing field" or the "equal access to information" doctrines because the law and economics literature has contributed to educate courts on the fallacy of using such doctrines to make rulings. Cohen's (2003) argument is not without reminding us of Demsetz's (1969) *Nirvana* fallacy critique in which he describes the dangers and fallacy of using concepts such as the perfectly competitive market as a benchmark or a norm to derive economic policy conclusions when real markets deviate from such ideal state of affairs (Demsetz 1969).

Colorado, the University of Chicago, and the University of Loyola at Chicago. The questionnaire consists of eight questions and additional demographic questions.[16] It began with a very basic definition of insider trading and a simple statement about what I wanted to do. In this questionnaire, I defined insider trading as "trading in securities while in possession of material nonpublic information."[17] In the statement, I asked whether insider trading should not be prohibited, that is, the regulation of insider trading would not be government-enforced. However, I argued that even in a deregulated environment, nothing would prevent corporations from writing contracts where insider trading would be forbidden or would not be allowed under some circumstances. In addition, we argued that corporations could as well require their insiders to report their trades as the SEC does. The questions asked were relatively simple and addressed common objections against, and arguments in favor of, insider trading. Participants were asked if they thought insider trading should be prohibited, sometimes prohibited, or not prohibited. They were asked the main reasons why they thought insider trading should be prohibited or should be allowed. Finally, they were asked whether they saw some obstacles to having insider trading self-regulated.

Although only one hundred questionnaires were returned, the very few completed questionnaires provide an interesting, even if only anecdotal, perspective on Henry Manne's influence in the law and economics community.

When asked whether insider trading should be prohibited, about 25% replied by the affirmative, 40% replied by the negative, and 35% replied sometimes. The most interesting part of the survey is that every one of those who answered that insider trading should be always or sometimes prohibited advanced that prohibition would be justified because insider trading is economically inefficient and generates agency problems within the corporation: meaning that insider trading gives incentives to insiders, particularly managers, to make decisions not necessarily in the best interest of the shareholders in order to profit from short-term stock price swings. The results of the questionnaire suggest that those who see insider trading as problematic do not agree with Manne's principal argument that insider trading should be deregulated and used as an efficient compensation scheme. Similarly, about 80% who oppose insider trading think that it discourages investment and, thus, decreases market liquidity.

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[16] It appears those demographic questions were not very useful given the low rate of returns.

[17] Some people commented that my definition of insider trading was not rigorous, and this criticism is accurate. However, for the purpose of the questionnaire, this definition is no different from the definition used by economists in general. Moreover, one could argue that there is no "official" definition of insider trading because the concept of who is an insider and where there is illegal insider trading has constantly evolved through United States Supreme Court decisions and other cases.

Of those who agree with deregulating insider trading, 100% agree that it is because it improves informational efficiency but only 80% agree that insider trading would be an efficient compensation scheme for managers. Only 10% agree that insider trading should be prohibited because it is unfair or immoral. Among those 10% who agree that insider trading is immoral, only one person argues that it is because it is based on informational disparity between investors and insiders. However, all of those 10% agree that insider trading is immoral because it amounts to theft of information and a breach of fiduciary duty.

Overall, while only anecdotal,[18] those results are interesting because they show that the morality/fairness-based argument has lost a lot of ground to economics/efficiency-based arguments in the insider trading debate.[19] There is little doubt that Manne's influence has been lasting over the last forty years, particularly in terms of influencing the debate toward a more rigorous scientific analysis as opposed to a moral-based argument. In some sense, the debate is now healthier in the sense that reason has substituted dogma.

While analyzing the debate gives us a good idea of how Henry Manne's work on insider trading has influenced the law and economics community, it provides us with very few insights of his influence outside this community. There are at least three levels at which it would appear interesting to analyze Manne's reach outside the law and economics community: policy makers, judges, and regulatory authorities.

III. OUTSIDE THE LAW AND ECONOMICS COMMUNITY

When I wrote the questionnaire I hoped to gain some insight into what lawyers and economists, as well as those not directly involved in law and

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[18] There is no doubt that a survey of a larger number of economists and lawyers is necessary to get a more accurate picture of how Manne has influenced the academic community.

[19] Laura Beny pointed out to me, however, that it is not because something is efficient that it necessarily should be allowed, as it can be immoral. For example, Fogel and Engerman (1971) showed that the slave-using Southern agriculture was more efficient than the free-labor-using Northern agriculture (Fogel and Engerman 1971, 353-67; 1977, 275-96; 1980, 672-90). Nonetheless, it is clear that, while such a system might have been more efficient, slavery is immoral. Thus, it should be prohibited because it represents a clear physical infringement of property rights of the individual over his body and mind. But, as Lloyd Cohen argued, this is a clear wrong over which there cannot be any debate. However, for insider trading, the answer is not as obvious. Because insider trading involves information, the intangible, non-physical nature of information makes it more difficult to argue that there is violation of property rights as, in most cases, violations of property rights involve goods of physical nature. In addition, as the evolution of court rulings on insider trading shows, the ethics of insider trading has evolved as well. On the other hand, the definition of efficiency has not. Therefore, using efficiency as a normative goal in the case of insider trading might provide a solution to the debate over insider trading as, contrary to slavery, rape, and theft, insider trading does not involve a physical infringement of property rights or physical harm.

economics thought about insider trading. Not surprisingly, the feedback from non-law and economics scholars was very low (under 10%).[20] The author received emails from lawyers stating that they did not specialize in this area and, therefore, would not complete the survey described above. Others suggested that I develop an online survey. A few lawyers that have not published in the area responded that they thought both moral and economic considerations should be taken into account. For lawyers, insider trading is first and foremost a breach of fiduciary duty and a misappropriation of the shareholder's information. Nevertheless, for those lawyers, some economic considerations should be taken into account when pronouncing policy conclusions.

Interestingly, answers came from non-legal scholars and economists who use the analytical tools provided by law and economics for quotidian problems but have neither published on insider trading nor did they identify themselves as law and economics practitioners. Overall, most economists agree that the answer to my question of whether insider trading should be prohibited is an empirical question and, therefore, "sometimes" is the best answer they could give me. Ultimately, for those economists, the regulation of insider trading is a matter of efficiency but the problem is that efficiency can operate at several levels. There is efficiency within the corporation, and there is efficiency at the market level, i.e., informational efficiency. Accordingly, when asked what they think about insider trading, they agree that insider trading improves informational efficiency but at the same time they also agree that insider trading "generates agency problems and raises agency costs within the firm, that is, it gives incentives to insiders (more particularly, managers) to make decisions not necessarily in the best interest of shareholders to profit from short-term stock price swings." Economists, even if they have not published on insider trading or are not *per se* law and economics practitioners, do see the costs and benefits of insider trading and, ultimately, regulating insider trading is a matter of comparing those costs. Some of those in favor of "sometimes" regulating insider trading also argue that insider trading could be an efficient compensation mechanism for managers to incite them to increase the value of the company but, as I said above, because insider-trading profits result from price-swings those incentives can become negative incentives to mismanage the company. Surprisingly, most economists, even those in favor of sometimes regulating insider trading, disagree with the criminalization of insider trading. While there are reasonable economic arguments as to why one would agree with the criminalization of insider trading, that is, to increase the costs of breaking the law and therefore discourage the practice, it seems that the "human-after-all" side of those economists takes over.

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[20] One could argue that with such a low feedback percentage any discussion of what those answers mean is at best anecdotal. On the other hand, the data points that those answers represent can be used as illustrative examples when taken in the broader context of the literature and other sources.

There is a final interesting observation. Respondents in favor of regulating insider trading agree that, even if we consider the issue of insider trading a contractual issue, insider trading is difficult to monitor and that the SEC or the government has to step in to at least enforce those contracts. This argument is somewhat similar to those developed by Easterbrook (1985, 94) and Macey (1991, 40-41) where a centralized agency such as the SEC or other market organizations such as the New York Stock Exchange (NYSE) or the National Association of Securities Dealers (NASD) benefits from economies of scale in monitoring and enforcing difficult contracts.

IV. INSIDER TRADING AT THE REGULATORY LEVEL

As we have seen, Henry Manne's work has had some significant influence on the literature on insider trading to the extent that his work has led to the production of more scientific, economics-based analyses of the insider trading question, and insider trading scholars have progressively departed from using an ethics-moral, to a more relativist approach to insider trading. Nevertheless, like any scholar, another purpose of his work was to influence policy-makers.

To assess the impact of Henry Manne and the law and economics literature on the perception of insider trading at the regulatory level, I turn to the evolution of legislation, rulings, recent Congressional hearings, and SEC chairman speeches.[21] A general look would tend to refute the idea that law and economics literature has had any impact whatsoever on how insider trading is perceived at the regulatory level. More and more insider trading cases are being litigated, and the laws, regulations and sanctions are becoming tougher.[22] Consequently, the class of insiders has been continuously reinvented.[23] However, just because insider trading has been increasingly regulated by lawmakers and policymakers, does not necessarily mean that

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[21] Obviously, this is a tiny sample of regulatory evidence. It will take a full paper or even a book to assess in detail the evolution of the perception of insider trading at the regulatory level.

[22] Insider trading is subject to criminal charges and the Justice Department can bring such charges on its own initiative. Any violation of the Rule 10b-5 or 14e-3 is a crime punishable by a $1 million fine and up to ten years in prison. In the Insider Trading Sanctions Act of 1984, Congress also increased the civil sanctions imposable by the SEC against insiders. In addition, in the Insider Trading and Securities Fraud Act of 1988, Congress authorized the SEC to develop a bounty program and extended the responsibility to breach insider trading laws to controlling persons to give incentives to monitor the activities of their employees. For further details, see Bainbridge (2001, 55-57).

[23] In *United States v. Willis*, 737 F. Supp. 269 (S.D.N.Y. 1990), a psychiatrist was indicted for insider trading based on information he learned from a patient. A football coach was also brought in court for insider trading in *SEC v. Switzer*, 590 F. Supp. 756 (W.D. Okla. 1984) but ultimately the court rejected the case. An article by H. Jenkins, Jr., (*Wall Street Journal*, May 9, 2001, A27) reports that Kathryn B. Gannon aka Marilyn Star, an adult movie performer, was also indicted in 1999 for insider trading.

law and economics has had no effect whatsoever. In reality, a reading of texts, some judicial rulings, and Congressional hearings shows that what has been written in the law and economics literature has received increasing attention, even though not necessarily in the direction that Manne would have preferred. Moving away from the "equal-access-to-information" doctrine developed in *Texas Gulf Sulphur*, which was based on fairness arguments, rather than actual analytical economic arguments, lawmakers, and policymakers have moved toward a more economical argument of promoting investors' confidence and developed "healthy" and broad markets.[24] However, even if economic arguments have started to make an appearance in rulings on insider trading, those arguments were not, for obvious reasons, the determining arguments in those rulings.[25]

Similarly, Congressional hearings held in September 2006 regarding widespread illegal insider trading and potential criminal enforcement, show that economic arguments have become part of the regulatory discourse. The justification for prohibiting and criminalizing insider trading is to guarantee that U.S. capital markets are efficient.[26] Macey (U.S. Senate 2007, 14-15), who testified in those hearings argued that insider trading was paramount to theft of intellectual property that "belongs to the corporation and its investors" (U.S. Senate 2007, 14).[27] The rationale for criminalizing insider trading according to Macey is to increase the costs for insiders to misappropriate this material, confidential information (U.S. Senate 2007, 14). Arguably, Beny (2006) offered the most economically influenced testimony during those hearings. She argued that countries with more stringent insider trading laws tend to exhibit (1) lower equity ownership concentration; (2) more informative stock prices; (3) greater average stock market turnover, and thus, more liquid markets than countries with less stringent insider trading laws (Beny 2006, 4-7). She concluded that her "results are consistent with (but do not prove) the claim that insider trading laws have a

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24 The same argument has been made by Bainbridge (2001, 65).

25 For example, in *United States v. O'Hagan*, 521 U.S. 642 (1997), Justice Ginsburg quotes the negative externality problem raised by insider trading when the information has been misappropriated. In *SEC v. David E. Lipson* 278 F.3d 656, 659 (7th Cir. 2002), Judge Posner wrote: "Even skeptics about the prohibition of insider trading tend to look askance at an insider who profits from the poor performance of his company—poor performance for which he may be responsible." See Frank H. Easterbrook and Daniel R. Fischel, The Economic Structure of Corporate Law 274-75 (1991); Henry G. Manne, Insider Trading and the Stock Market 150-51 (1966); but cf. Dennis W. Carlton and Daniel R. Fischel, "The Regulation of Insider Trading," 35 Stan. L. Rev. 857, 872, 873-75 (1983).

26 One should note that nowhere in those testimonies is a definition of efficient capital markets provided. Are we talking about informational efficiency or economic efficiency?

27 While this is not the proper place to discuss this argument, one could wonder why any corporate shareholder, large or small, could therefore not be allowed to trade on material nonpublic information given that this information belongs to her. Is this information collectively owned by the corporation and its investors? When a shareholder comes across confidential information, should a meeting be held so she can ask permission to trade on this information.

positive impact on stock markets" (Beny 2006, 8). In addition, she argued that "private parties would be unlikely to give adequate consideration to those external benefits, if insider trading were left to private contracting" (Beny 2006, 8). She concluded that her "findings thus support the case for public regulation and correspondingly weaken the case for deregulation of insider trading." (Beny 2006, 8).

The recurrent theme is that illegal insider trading will discourage investment in stock markets if the public knows that it is pervasive. Given that capital markets are the lifeblood of an economy, if investment decreased due to insider trading, the deadweight loss to society would increase.

This being said, while economic arguments have increasingly been advanced to justify the current prohibition of insider trading, emotion-based moral arguments are still present in the regulatory discourse. Insiders are being depicted as insidious people who have little regard for morality and could care less about their reputation. When then-SEC Chairman Arthur Levitt (1998) gave his speech to the "SEC Speaks" Conference, his first thought on insider trading was that it is "morally wrong" (Levitt 1998). Following Louis Loss, Levitt argued that "the statutes establishing our regulatory system championed the idea of 'the level playing field.'" "Honest trading and equal access to material information" is the main *raison d'être* of securities regulation (Levitt 1998). Similarly, last September, SEC Commissioner Roel C. Campos reaffirmed this idea of level playing field and fairness in a speech on the current role of capital market regulation:

> Many of our regulations are actually the product of requests from various parties (both from the business and the investor camps) to level the playing fields and provide a framework within which a healthy economy can thrive through competition, innovation, fairness, efficiency and confidence (Campos 2006).

As I have said above, while economic arguments have been increasingly relied on during regulatory discourse, arguments based on morality are still dominant. However, we should recognize that those arguments are closely linked. In this sense, while Henry Manne may not have succeeded in convincing regulatory authorities, lawmakers, and policymakers to revisit insider trading laws, his plea to adopt a more rigorous, analytical, and logical approach to insider trading may have been heard to some extent.

V. THE GENERAL PUBLIC'S OPINION

The last aspect of my attempt to assess the impact of Henry Manne's work was to analyze its effect on the general public's views on insider trading. Not only did Henry Manne publish in the academic literature but he also published in the popular press, notably articles such as "The Case for

Insider Trading" in *The Wall Street Journal* (March 17, 2003, A14). There is no doubt that such publications seek to change the general public's opinion on insider trading, or at least offer another viewpoint. Henry Manne is not alone in this task. Other commentators have attempted to explain why insider trading is not always a *bad* thing (see, e.g., Smith 2002; Lemieux 1991). But, when we look at the popular press, the media, pop culture, etcetera, we can quickly see that advocates of insider trading are more the exception than the rule. More importantly, Manne and his colleagues are not as popular as, for example, Oliver Stone and his movie *Wall Street* (1987). Oliver Stone's depiction of Wall Street and Gordon Gekko, whose character was based on Ivan Boesky, had a far greater impact on the general public than any of the rigorous, analytical arguments that Henry Manne had developed over the last forty years to defend insider trading. Gordon *"Greed is Good"* Gekko comes across as despicable as one can be.[28] He appears as a very greedy, manipulating, cutthroat person who would not stop at anything to make profits. This representation of the insider Gordon Gekko a.k.a. Ivan Boesky as a cutthroat individual is undoubtedly the way the general public perceives insiders.

Similarly, Henry Manne's *Insider Trading and the Stock Market* could not compete with James B. Stewart's number one bestseller *Den of Thieves* (1991). *Den of Thieves* clearly does not show Ivan Boesky, Dennis Levine, Martin Siegel, and Michael Milken in the best light. Like *Wall Street's* Gordon Gekko, they are represented as greedy, cutthroat individuals.[29] By focusing on the personality and characters of those insiders, the general public automatically assimilates insider trading with greed and immorality, thus relegating to the background the possible benefits those insiders brought to the business world and society at large. Often when it comes to money, emotions take over reason. Manne himself, in his book, describes the reaction that the arguments he presented to some of his students created. A reaction that one could paraphrase as being "I don't care (if it's efficient or economically good), it's just not right!" (see Manne 1966a, 15 n.42).

In the wake of the 1986 inside trading scandals involving Dennis Levine, Michael Milken, Ivan Boesky, and Martin Siegel, a similar poll was conducted by *The Wall Street Journal* and NBC News ("Poll Finds Majority Thinks Insider Trading is Common," June 6, 1986, 1). The results were

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[28] If one had any doubt that Oliver Stone used Ivan Boesky as a model for the Gordon Gekko character, one should remember that, in 1986, at the UC Berkeley Haas School of Business commencement ceremony, Ivan Boesky gave a speech in which he said: "Greed is all right, by the way. I want you to know that. I think greed is healthy. You can be greedy and still feel good about yourself" (Boesky 1986).

[29] One should note, though, that the book also shows that the government stopped at nothing to get Ivan Boesky and Michael Milken, such as using RICO laws and threatening to put Michael Milken's brother and family in jail. Also, the book shows that the government may have itself committed one of the largest insider trades by forcing (allowing) Ivan Boesky to sell $440 million in shares before publicly disclosing the indictment.

no different from the one conducted sixteen years later. 1,599 adults were asked the following question: "Do you think that insider trading—that is, trading on information not known by the general public—is common among investment professionals, or don't you think so?" Of the 1,599 adults asked, 69% said they thought insider trading was common. Among the 27% of the respondents who invest in the stock market, 76% said they thought insider trading was common.

Sixteen years later, in the wake of the Enron, WorldCom, and Martha Stewart's scandals, several polls were conducted as well. The results are quite revealing on the public's opinion regarding insider trading. In 2002, CBS News conducted a poll regarding American people's confidence in big business. The poll was conducted among a nationwide random sample of 685 adults. The results showed that 68% believed that insider trading was a widespread practice (CBS News 2002). Examining specifically Martha Stewart's case, even though she was never convicted of insider trading, most people thought she was guilty of insider trading and should have been punished for it. In 2003, the *New York Times* reported that a poll conducted by the Siena Research Institute reported that 60% of the 567 people interviewed thought that Martha Stewart was guilty (*New York Times*, June 14, 2003). Similarly, in a Harris Poll conducted in 2004 which asked 3,378 adults the following question: "Martha Stewart has been charged with obstruction of justice and fraud related to insider trading. Do you think she is probably guilty or not?" 60% answered that they thought she was probably guilty (Taylor 2004).

In an effort to assess the current popular opinion on insider trading, I conducted a small survey among my students to whom I never talked or taught anything about insider trading. In this survey, after providing a short statement similar to the one provided in the other survey I conducted among lawyers and economists, I asked the students whether they thought insider trading should be prohibited and asked them to briefly provide a statement to explain their answer. To increase the percentage of feedback from students, I gave to those students who completed the survey one extra-credit point on their final course grade. Of 124 questionnaires that were sent to the students, 65 returned the questionnaire completed, which is about 52%. Of 65 students who returned the questionnaire, 56 said that insider trading should be prohibited (86%) and all 56 students who stated that insider trading should be prohibited see insider trading as an unfair practice in which the insider take an unfair advantage over the "regular investor . . . the little guys." Some students think that allowing insider trading would create a negative externality on the market, thus discouraging investment. For those students, insider trading is nothing less than cheating the system. They mostly see insider trading as selling stocks before bad news is made public, thus harming those who purchase the stocks from the insider. The most common example used by those students was Martha Stewart. Of the 65 students, 5 of them thought that insider trading would be very difficult to

regulate and monitor due to the intangible nature of the good used: information. Another student wondered why the definition of insider trading was restricted to securities markets. He mentioned that one of his friends was an oil-seeking geologist working for Shell Group. The student said that his friend explained to him that "if he finds or believes that there is oil on the 1,000 acres that you own, he can offer to buy the land from you, but is not required to disclose that there is or could be oil under the dirt, making the land many times more valuable than you know." For this student, that type of transaction was equivalent to insider trading but was perfectly legal.

If there was some doubt regarding how unpopular insider trading is, those studies and polls will eliminate any doubts. Obviously, the extant unpopularity of insider trading should not be impugned on the inability of Henry Manne and other pro-insider-trading scholars to educate the public but rather on the fact that the general population is usually poorly educated when it comes to economics.[30]

VI. CONCLUDING REMARKS

The modest purpose of this paper was to assess how big of an influence Henry Manne's work on insider trading had on the literature as well as outside, in the real world. His seminal work *Insider Trading and the Stock Market* has pushed many opponents to reconsider some of their (dogmatic) beliefs on insider trading. More importantly, his work has brought into the picture the analytical rigor that was necessary to analyze a problem that has many policy ramifications. Because of technical difficulties, however, it is difficult to quantify Henry Manne's actual influence. Certainly, the magnitude of the debate that ensued following the publication of his work shows the importance of the issues and questions he raised.

If one were to assess whether Henry Manne succeeded in his primary goal, the answer would be: it depends on what Manne had in mind when he wrote his book on insider trading. If his primary goal was to influence policymakers and lawmakers toward deregulating or, at least revisiting, insider trading, it is clear that Manne failed in his attempt. However, it is unlikely it was his main goal given that academics rarely succeed in influencing governments, lawmakers, and policymakers in their decisions, particularly, if those decisions involve deregulation and big cuts in their budget

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30 My arguments rejoin Cohen's (2003) comments discussed *supra* at note 19, that people, when faced with complex issues, difficult to understand, tend to use metaphors and similes to derive their normative conclusions. The lack of economic education among the general population not only explains the relative unpopularity of insider trading but also of big businesses such as Wal-Mart or Microsoft; why people generally favors increasing minimum wages, rent control and other price controls, and oppose legalization of marijuana and immigration.

and paychecks.[31] On the other hand, if Manne's main goal was to force insider-trading critics to provide logical, analytically rigorous justifications for prohibiting insider trading, there is no doubt that his influence has been significant. As we have seen, the literature on insider trading quickly moved from dogmatic, emotion-based argument toward a more value-free scientific approach.

However, one should not claim victory yet. Much work remains to be done in terms of convincing policymakers, lawmakers, and the general public to adopt a similar approach when discussing and considering insider trading. It seems clear that in the political realm and in the public, emotions and dogmatism are still dominating the discourse on insider trading. It seems that beyond trying to influence the political realm or the public, the main goal of insider-trading scholars should be to continue to educate people on insider trading so that insiders cease to be our "modern witches."[32]

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[31] It does not mean that scholars and academics should not attempt to influence governments, lawmakers, and policymakers but the chances of success are very low except when recommendations are toward more regulations, more laws, bigger budgets, etc.

[32] This expression is inspired by Lemieux (1991).

REFERENCES

Bainbridge, S. M. 2000. Insider trading: an overview. Working paper, UCLA School of Law. Los Angeles, California. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=132529 (last visited May 27, 2008).

—— 2001. The law and economics of insider trading: a comprehensive primer. *Social Sciences Research Network Electronic Paper Collection.* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=261277 (last visited May 27, 2008).

Beny, L. N. 1999. A comparative empirical investigation of agency and market theories of insider trading. Discussion Paper No. 264, James M. Olin Center for Law, Economics, and Business. Cambridge, Massachusetts. http://www.law.harvard.edu/programs/olin_center/papers/pdf/264.pdf (last visited May 27, 2008).

—— 2006. Evidence on insider trading laws and stock markets. Testimony before the United State Senate Committee on the Judiciary (September 26).

Bettis, J. C., W. A. Ducan, and W. K. Harmon. 1998. The effectiveness of insider trading regulations. *The Journal of Applied Business Research* 14 (4): 53-70.

Bhattacharya, U., and H. Daouk. 2002. The world price of insider trading. *Journal of Finance* 57 (1): 75-108.

Boesky, I. 1986. Commencement address at UC Berkeley Hass School of Business (May 18). Berkeley, California.

Campos, R. C. 2006. The current role of capital market regulation. Speech by SEC Commissioner. CVM's 30th Anniversary: Assessing the Present, Conceiving the Future (September 5). Rio De Janeiro, Brazil. http://www.sec.gov/news/speech/2006/spch090506rcc.htm (last visited May 27, 2008).

CBS News Poll. 2002. Poll: Little faith in big biz (July 10). New York. http://www.cbsnews.com/stories/2002/07/10/opinion/polls/main514732.shtml (last visited May 27, 2008).

Cohen, L. 2003. Insider trading: searching for similes. *Annual Review of Law and Ethics* 11: 361.

Demsetz, H. 1969. Information and efficiency: another viewpoint. *Journal of Law and Economics* 12 (1): 1-22.

Easterbrook, F. H. 1981. Insider trading, secret agents, evidentiary privileges, and the production of information. *Supreme Court Review* 1981: 309-65.

—— 1985. Insider trading as an agency problem. In *Principals and agents: the structure of business*, ed. J. W. Pratt and R. J. Zeckhauser, 81-99. Boston: Harvard Business School Press.

Easterbrook, F. H., and D. R. Fischel. 1996. *The economic structure of corporate law.* Cambridge, Massachusetts: Harvard University Press.

Fishman, M. J., and K. M. Hagerty. 1992. Insider trading and the efficiency of stock prices. *Rand Journal of Economics* 23 (Spring): 106-22.

Fogel, R. W., and S. L. Engerman. 1971. The relative efficiency of slavery: a comparison of southern and northern agriculture in 1860. *Explorations in Economic History* 8 (3): 353-67.

—— 1977. Explaining the relative efficiency of slave agriculture in the antebellum south. *American Economic Review* 67 (3): 275-96.

—— 1980. Explaining the relative efficiency of slave agriculture in the antebellum south: reply. *American Economic Review* 70 (4): 672-90.

Haddock, D. D., and J. R. Macey. 1987. Regulation on demand: a private interest model, with an application to insider trading regulation. *Journal of Law and Economics* 30: 311-52.

Hayek, F. A. 1945. The use of knowledge in society. *American Economics Review* 35 (4): 519-30. Reprinted in *Individualism and Economic Order*, 77-91 (1980). Chicago: University of Chicago Press.

Hays, C. 2003. Poll says majority agree with indictment of Martha Stewart. *The New York Times* (June 14).

Henry, G. M. 1986. Dark clouds over Wall Street. *Times Magazine* (May 26). http://www.time.com/time/magazine/article/0,9171,961448,00.html (last visited May 27, 2008).

Lemieux, P. 1991. *Apologie des Sorcières Modernes.* Paris: Les Belles Lettres.

Levitt, A. 1998. A question of integrity: promoting investor confidence by fighting insider trading. Remarks of Chairman Arthur Levitt to the "S.E.C. Speaks" Conference. http://www.sec.gov/news/speech/speecharchive/1998/spch202.txt (last visited May 27, 2008).

Macey, J. R. 1991. *Insider trading: economics, politics, and policy.* Washington, D.C.: AEI Press.

Manne, H. G. 1965. Mergers and the market for corporate control. *The Journal of Political Economy* 73 (2): 110-20.

—— 1966a. *Insider trading and the stock market.* New York: The Free Press.

—— 1966b. In defense of insider trading. *Harvard Business Review* 44 (6): 113-22.

—— 2005. Insider trading: Hayek, virtual markets, and the dog that did not bark. *Journal of Corporation Law* 31 (1): 167-85.

Patterson, D. J. 1967. Review of *Insider trading and the stock market. American Economic Review* 57 (4): 971-74.

Smith, F., Jr. 2002. Where were the insiders when we really needed them? *Liberty Unbound Magazine* 16 (5): 7-19.

Stone, O. 1987. *Wall Street.* 20th Century Fox.

Taylor, H. 2004. Differing perceptions of the guilt or innocence of Michael Jackson, Kobe Bryant and Martha Stewart. Harris Interactive (February 11). http://www.harrisinteractive.com/harris_poll/index.asp?PID=438 (last visited May 27, 2008).

United States v. Chiarella, 445 U.S. 222 (1980).

United States v. O'Hagan, 521 U.S. 642 (1997).

U.S. Senate. 2007. Senate Judiciary Committee. Illegal insider trading: How widespread is the problem and is there adequate criminal enforcement? Hearing before the Senate Judiciary Committee. 109th Congress (September 26, 2006). S. HRG. 109-806. Serial No. J-109-117. Washington, D.C.: U.S. Government Printing Office.

APPENDIX 1

Questionnaire on Insider Trading

Should Insider Trading Be Prohibited?

I use a very generic definition of insider trading, which "is trading in securities while in possession of material nonpublic information" (Bainbridge, Stephen M. 2001. "The Law and Economics of Insider Trading: A Comprehensive Primer." Available on the Social Sciences Research Network http://papers.ssrn.com/sol3/papers.cfm?abstract_id=261277). I use a very loose definition of insiders and define them as any individuals who have access or have been given access to inside information.

While this study is investigating whether insider trading should be prohibited and such prohibition should be enforced by the government, I do not necessarily assume that, under a regime where insider trading would be allowed, people would not make contracts about confidentiality and use of nonpublic information.

Under a regime where insider trading would not be government-regulated, it is possible that corporations competing on capital markets would develop policies governing the use and communication of nonpublic information and restricting the use of such information for personal profits if they believe such policies will attract capital. In the same way that the Securities Exchange Commission and government authorities require corporate insiders to report their transactions and track their transactions through the *Ownership Reporting* and with the assistance of stock exchanges authorities, under a regime where some corporations would write contracts policing the use of nonpublic information, those corporations could use similar mechanisms to enforce those contracts.

Name (optional):
Last Name (optional):

Question 1: Have you published on insider trading?
Yes No

Question 2: Do you think insider trading should be prohibited?
Yes No Sometimes

If you answered NO to Question 2, go to Question 7.

Currently, insider trading laws make insider trading violations both a civil and criminal offense. Civil prosecution is usually brought by the Securities Exchange Commission in a United States court district. The civil penalty is to be determined by the court district but cannot exceed three times the profit gained or loss avoided as a result of illegal insider trading. One should note that any civil penalty must be paid to the Treasure of the United States. Criminal charges are traditionally brought by the Department of Justice. Insider trading is punishable by monetary penalties and imprisonment up to 10 years. However, the standard of proof in criminal prosecution is higher and makes illegal insider trading more difficult to prove. If insider trading were to be decriminalized, the Department of Justice could no longer indict and prosecute illegal insider trading. One could argue that criminalizing insider trading increases the costs of engaging in illegal insider trading and therefore would likely discourage more illegal insider trading than just imposing civil/monetary sanctions.

Question 3: Do you think insider trading should be treated as a civil offense but not a criminal one?

Yes No

Question 4: If you think insider trading should be prohibited, is it mainly *because:*

Insider trading is unfair/immoral
Insider trading is economically inefficient
Both unfair and economically inefficient

If you answered that insider trading should be prohibited because "it is immoral" go to Question 5, if you answered "because it is economically inefficient" prohibited go to Question 6.

Question 5: In your opinion, insider trading is immoral because:

It is based on an informational disparity between traders/investors
It amounts to a breach of fiduciary duty
It amounts to a misappropriation to information

Question 6: In your opinion, insider trading is economically inefficient because (check all that apply):

It discourages investors from investing in the stock market and, thus, decreases market liquidity and increases capital costs

It generates agency problems and raises agency costs within the firm, that is, insider trading give incentives to insiders (more particularly, managers) to make decisions not necessarily in the best interest of shareholders to profit from short-term stock price swings

It enables individuals to manipulate stock prices

Question 7: If you believe that policing of insider trading is a contractual question, you think the decision to govern insider trading should be left to (check all that apply):

The corporation
The shareholders
Stock exchange authorities

Even though I believe the policing of insider trading is a contractual question, I believe that only the government could efficiently police insider trading because insider trading is difficult to monitor

Question 8: If you think insider trading should be allowed, it is because (check all that apply):

Insider trading improves informational (market) efficiency
Insider trading is an efficient compensation mechanism for managers
Insider-trading-law costs outweigh the benefits of such laws

Background Questions (optional):

I am:
an Economist a Lawyer Other - please specify

I have:
a Ph.D. in Economics a J.D. a M.A. or M.S. in Economics
Other - please specify

Profession (check all that apply):
Academic
Private Sector (Firm, Corporation, Private Practice, Law Firm)
Public Sector (Government, Government Agency, Court)

Gender:
Male Female

Ethnicity:
Caucasian African and African-American Hispanic
Asian or Pacific Islander American Indian or Alaskan Native

Age:
18-29 30-39 40-49 50 and older

Income:
$50,000 or less $50,000 to $75,000 $75,000 to $100,000
above $100,000

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COMMENT

Alexandre Padilla's *How Do We Think About Insider Trading? An Economist's Perspective On The Insider Trading Debate And Its Impact*

Lloyd Cohen[*]

I have two different categories of comments to offer on Professor Padilla's paper: procedural and substantive. The first procedural comment is a suggestion to my fellow economists that they be more accepting of the survey method of this paper than they are likely inclined to be. Economists are, in general, constitutionally opposed to surveys; or to say it more simply, we hate surveys, and that hatred is usually well-justified. But this case is a bit different. Surveys are perhaps the only possible tool to answer the interesting questions that Professor Padilla examines.

Why do we generally oppose surveys? First, surveys are often employed tendentiously, thoughtlessly and inappropriately. They are tendentious in that the questions asked in the survey are often shaded so that vastly different outcomes can be engineered to the same basic question. For example, "Do you think a mother should be permitted to murder her unborn child?" No? How about, "Do you think a woman has a right to control her own body and terminate an unwanted pregnancy?" Surveys are thoughtless and inappropriate in that people often either do not know the answer to the questions they are asked, or are inclined to dissemble. As an example of the former, "How much are you willing to pay out of your own pocket to clean up Lake Erie?" As for the latter, "Do you ever have violent sexual fantasies?"

An even more serious criticism of surveys is that they are vastly inefficient in comparison to their most powerful rival. Generally, a much better way to gather information on what people think, prefer or believe is to observe what they do. Actions speak louder than words. Economists refer to this as revealed preference. What people do when they must pay a price for their actions is a much more reliable indicator of what they believe than what they say they would do. Moreover, I too have often found that those who are afraid to learn what people actually think use surveys to hide from the revealed preferences of people's actions. For example, consider the proposal to create a market for transplant organs. I have been trying to promote such a market for almost two decades. I have been arguing for the

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most pedestrian of economic notions, namely that the supply curve of transplant organs slopes upwards. There is one simple foolproof way of determining whether this is the case. Offer people money for their organs, either for delivery while alive or at their death, and see what happens to the quantity supplied. But no, the folks at the Institute of Medicine insist that the way to answer the question on the shape of the supply curve of transplant organs is not to offer people money, but to do a survey. Ask them a hypothetical question of whether they would sell an organ if they were offered money as compensation. This sort of survey has two of the disabling flaws I mentioned earlier. First, it is the sort of hypothetical question to which answers are unreliable because it is difficult for a person to place himself in the hypothesized situation and assume that perspective. Second, it is the sort of question in response to which a person is likely to posture and lie. There is an all too common and forgivable human tendency to portray oneself in as noble a light as possible—especially when there is no cost to doing so! You are not going to get anything particularly informative or useful by asking people whether they are base or noble.

The first thing that can be said in favor of Professor Padilla's project is that his survey suffers from neither of these problems. But, the biggest difference in the case of his survey is that he is not trying to determine what people will do, but rather, what they believe. Because there is no market in such beliefs, nor as best as I can determine any shadow market, there seems to be no good way to figure out what people think about the question of insider trading other than to ask them. So, in this particular case a survey seems appropriate. And, this does not seem to be the sort of question about which people will be inclined to posture and lie.

But lest I be accused of being too sympathetic to surveys, let me note one substantial difficulty that Professor Padilla faces. It is very difficult for a survey to reveal the intensity of the subjects' beliefs. A market, on the other hand, gives you much more evidence of intensity. As price moves up and down, the price elasticity of demand is a powerful measure of intensity of desire. But whether someone hates, abhors, detests, dislikes or disapproves of insider trading (and what those words mean to different subjects) is more than a little difficult to determine through a survey.

The second, procedural, comment concerns Professor Padilla's difficulty in getting people to respond to this survey. Of course, his difficulty in this regard is a powerful economic lesson about the shortcoming of surveys generally. As far as the subjects are concerned, the question is "What's in it for me?" The answer of course is nothing. So even with regard to a simple straightforward survey such as this one, Professor Padilla had a great deal of trouble getting people to participate. When such a small percentage of the target audience responds, there is a disabling probability of selection bias.

I have one tip to offer Professor Padilla as to how to get a better response rate. Promise to pay the subjects. How much? Well twenty-five

dollars should do the trick. This may at first seems expensive, but note that I only said to promise them, not to actually pay them. This strategy comes to mind because several times over the last few years I have agreed to answer surveys after being offered such payment, and I have yet to receive a dime. More seriously and ethically, I do not have an answer to how you get people to respond to surveys.

As for the substance of Professor Padilla's article, I have a seemingly small but, I think, fundamental disagreement with the way Professor Padilla has cast his question. He asks, "Do we think or feel about insider trading?" I want to suggest that this is a false dichotomy. When properly analyzed the two are identical. We feel about something because of the way we think about it. Imagine you see a couple engaged in sex; if you think it is rape, your emotional stance is, I hope, horror and anger, while if you think it is love-making, your emotional stance is likely something decidedly different. So too with insider trading. If you think it a species of theft, you feel about it one way, while if you think of it as a species of compensation, your feelings will be entirely different. I suggest that Professor Padilla reformulate the question so as to avoid positing a conflict between feelings and thought, but rather that the two are different sides of the same coin.

But, this requires a little more clarification. What does it even mean to say that we think about such questions? I believe that much thinking takes place in the form of metaphors and similes. There is a small category of well-understood quasi-universal wrongs: assault, theft, rape. In the simple world—that perhaps has only ever existed in our imaginations—every human action could be instantaneously and neatly placed into its proper moral category; we require no mental gymnastics to persuade ourselves that a violent assault on a stranger is an evil act and a crime.

Because the moral character of rape is so obvious, no one ever employs metaphor or simile to condemn it, and, it would seem positively bizarre to analogize it to a suspect business practice. The reverse play however is common. Ambiguous business practices are routinely condemned by analogizing them to common law crimes to person or property. Such rhetorical moves are not merely an attempt to exaggerate the evil of the putatively bad act. More fundamentally, they are an effort to establish its credentials as bad in the first place and to make a passing attempt to characterize the nature of the wrong.

Why are these rhetorical tools employed? The human mind, if it can understand anything at all, can only understand the simple. The trick for it, and us, is to find the simple in the apparently complex and inscrutable. Much that goes on in the world of business requires no great leap of the imagination to understand. Theft and violence are well-understood wrongs whether they occur at home, on the street, or in the business office. But, there are other practices, unique to the world of business, that are less well-understood and so more ambiguous in their moral and legal meaning. We understand the normative meaning of these activities—if at all—through

metaphors and similes to more familiar and simpler practices. When we settle on what we think is the proper metaphor, it triggers the appropriate emotion.[1]

The difference between good thinking and bad thinking is then a matter of employing appropriate or inappropriate metaphors and similes. The wrong metaphor leads one to misperceive the world and blinds one to the salient economic and moral qualities of the activity in question. So, for example, the metaphor of the virtues of a "level playing field" in stock trading blinds those who employ it: (1) to the impossibility and injustice of "leveling this playing field"; and (2) the social wealth-increasing character of rapidly incorporating information into the price of stocks. Of course, being blinded to these characteristics of insider trading, one concludes that it is a species of theft or cheating and reacts to it with the appropriate emotion.

We are all required to be—or at least appear—morally smart about things of which we know little, and understand less. We understand the unusual and new through reference to the common and familiar. Our moral imagination constantly trolls with a net of metaphors and similes. It can do nothing else. Being conscious of this allows us to think critically about which metaphors we employ and thereby to gain purchase on the world and its meaning. I do not think that any survey could ever reveal that a person thought that insider trading was a species of efficient compensation, and yet, still believed it to be evil and wrong. So in refining his survey, I think a useful thing Professor Padilla might try to do is to get people to reveal the metaphors and similes they employ to understand insider trading. If he succeeds, that will tell all about their economic, moral, and legal view of the question.

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[1] *See* Lloyd R. Cohen, *Insider Trading: Searching for Similes*, 11 ANN. REV. OF L. & ETHICS 361 (2003).

DO INVESTORS IN CONTROLLED FIRMS VALUE INSIDER TRADING LAWS? INTERNATIONAL EVIDENCE

Laura Nyantung Beny[*]

ABSTRACT

This article characterizes insider trading as an agency problem in firms that have a controlling shareholder. Using a standard agency model of corporate value diversion through insider trading by the controlling shareholder, I derive testable hypotheses about the relationship between corporate value and insider trading laws among such firms. The article tests these hypotheses using firm-level cross-sectional data from twenty-seven developed countries. The results show that stringent insider trading laws and enforcement are associated with greater corporate valuation among the sample firms in common law countries, a result that is consistent with the claim that insider trading laws mitigate agency costs. In contrast, I find that insider trading laws and enforcement are generally insignificant to corporate value among the sample firms in civil law countries. I find no support, however, for the claim that insider trading laws exacerbate agency costs and thus no support for the deregulatory position. These results are robust to controlling for a variety of potentially relevant factors and suggest that the

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firm-level impact of insider trading regulation may depend on the local context in which it is applied (or not applied, as the case may be).

I. INTRODUCTION

Insider trading has long been debated in law and economics literature.[1] The central question is whether insider trading is efficiency-improving or efficiency-reducing for firms and the stock market as a whole. At the market level, the debate concerns the effect of insider trading on characteristics of the stock market such as stock market liquidity and volatility and stock price efficiency or accuracy. The relevant question here is whether insider trading enhances or reduces stock market efficiency.[2] At the firm level, the debate focuses on the impact of insider trading on the intra-firm agency conflict, the classic conflict of interest between managers or controlling shareholders (the agents) and non-controlling shareholders (the principals).[3] The salient question at the firm level is whether insider trading ameliorates or worsens this conflict. This article focuses on the impact of insider trading on the agency conflict within the firm.

The impact of insider trading on the intra-firm agency conflict is an important issue because it raises the weighty corollary question of who ought to monitor and regulate insider trading: the government, via a blanket prohibition of insider trading, versus firms and shareholders, via private contracting. There are three major views on the impact of insider trading on the agency conflict. The first position is that insider trading mitigates this conflict and therefore insider trading regulation reduces intra-firm efficiency (Carlton and Fischel 1983). In contrast, the second position holds that insider trading exacerbates the agency conflict and consequently insider trading regulation promotes intra-firm efficiency (e.g., Cox 1986; Manove 1989; Kraakman 1991; Klock 1994; and Maug 2002).

The third position straddles the fence, maintaining that the effect of insider trading on the agency conflict is indeterminate and varies across firms. Nevertheless, according to proponents of the third view, private contracting is superior to insider trading regulation because private parties are more capable than the government of assessing the effect of insider trading on the corporation (see, e.g., Haddock and Macey 1987; Epstein 2004).[4] Private contracting will promote varied and efficient responses to insider trading

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[1] For a summary of the debate, see Beny (2007) and Bainbridge (1999).

[2] See, e.g., Bhattacharya and Daouk (2002) for evidence of the effects of insider trading and/or insider trading regulation on stock markets as a whole.

[3] See Jensen and Meckling (1976) for a description of agency conflict and agency costs.

[4] Carlton and Fischel (1983) may also be categorized under the third view because they consider the possibility that insider trading harms the firm by reducing liquidity of the firm's shares. But they ultimately dismiss this possibility by arguing that if it were true, we would have observed firms voluntarily banning insider trading before it became illegal in the United States.

across firms. According to those who espouse this view, firms in which insider trading exacerbates the agency conflict will prohibit insider trading, while firms in which insider trading mitigates the agency conflict will permit insider trading.[5]

Although law and economics scholars have long stressed the need for empirical evidence on the impact of insider trading on the intra-firm agency conflict (see, e.g., Carlton and Fischel 1983; Easterbrook 1985), there were few empirical studies on this topic until recently.[6] Because insider trading is illegal in virtually every country with a public stock market (Bhattacharya and Daouk 2002), it is impossible to conduct a direct empirical test of whether insider trading exacerbates the agency conflict and whether private contracting is superior to a mandatory ban.[7] However, we can assess these issues indirectly by exploiting cross-country variation in the strength of insider trading laws and enforcement.[8] If insider trading exacerbates the agency conflict, we would expect insider trading regulation (assuming it is effective) to be associated with higher corporate value because corporate value is a proxy for agency costs (Morck et al. 1988).[9] This article investigates the latter proposition by examining the relationship between the strength of a country's insider trading laws and corporate value among firms that have a controlling shareholder.

I focus on firms with a controlling shareholder for two reasons. First, while a substantial part of the prior literature focuses on the conflict between managers and shareholders, the conflict between managers and controlling shareholders on the one hand and minority shareholders on the

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[5] For empirical evidence on private restrictions of insider trading among Canadian firms, albeit in the shadow of the insider trading prohibition, see Beny and Anand (2008).

[6] The main evidence adduced by opponents of insider trading regulation, in support of their deregulatory position, is the historical survival of insider trading in the United States prior to the enactment of insider trading rules, without any apparent attempt by private parties to prohibit insider trading (Carlton and Fischel 1983). According to Carlton and Fischel (1983), this evidence suggests that shareholders did not perceive insider trading to exacerbate the agency conflict because, if they had, they would have prohibited insiders from trading long before the legislature and the courts preempted the issue. In response, Judge Easterbrook (1985) argues that the historical survival of insider trading in the United States may have merely meant that the cost of such contracting was too high, not that shareholders had no desire to prohibit insider trading (Easterbrook 1985; see also Cox 1986). Recent empirical studies on insider trading laws and enforcement include Maug and Ackerman (2006); Beny (2005, 2007); Bhattacharya and Daouk (2002, 2005); Bris (2005); and Durnev and Nain (2005). All of these recent studies provide evidence on the cross-country implications of insider trading laws and enforcement.

[7] Also, the near-universal illegality of insider trading arguably places the burden on opponents of insider trading regulation to show that such regulation is more costly than beneficial, since they seek to change the status quo.

[8] This is not possible at the domestic level unless, like Canada, a country exhibits state/provincial variation in its insider trading laws and enforcement or one uses time series data for a single country that span periods before and after the enactment of insider trading legislation.

[9] See Jensen and Meckling (1976) for the original formulation of agency costs.

other hand is more salient outside of the United States (La Porta et al. 2002). Second, testing the implications of insider trading laws in firms with dispersed share ownership would require data on executive compensation since insider trading profits may substitute for other forms of compensation and insider trading may have a non-discernable impact on corporate value (assuming there are no incentive effects) (Roulstone 2003; Noe 1997). Yet, these data are not readily available for foreign corporations. In contrast, data on the existence of controlling shareholders and their ownership and control stakes are available. Controlling shareholders are subject directly or indirectly to the insider trading prohibition in all of the countries in my sample.

Based on a simple agency model of corporate value diversion through insider trading by the controlling shareholder, I derive two empirically testable hypotheses about the relationship between corporate value and insider trading laws: (1) more stringent insider trading laws increase firm value by reducing the controlling shareholder's incentive to divert corporate value through insider trading, and (2) more stringent insider trading laws and an increase in the controlling shareholder's financial stake in the firm are substitute means to mitigate the agency conflict. I test these hypotheses using firm-level data from a cross-section of large firms from twenty-seven developed countries. This article's central finding is that more stringent insider trading laws and enforcement are associated with higher corporate value for the sample firms in common law countries and unrelated to corporate value for the sample firms in civil law countries.[10] Thus, the evidence presented in this article does not support the claim that insider trading regulation exacerbates agency costs in firms that have a controlling shareholder, as some scholars argue (e.g., Demsetz 1986; Bhide 1993). As a result, the evidence also does not support the call for deregulation of insider trading (see, e.g., Carlton and Fischel 1983).

Section II of this article provides an overview of existing law, economics, and finance literature that characterizes insider trading as an agency issue and presents the two hypotheses. Section III describes the data and presents descriptive statistics. Section IV outlines the empirical methodology and presents the regression results. Section V addresses the robustness of the results. Finally, Section VI concludes.

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[10] I do not find that cash flow ownership and insider trading laws are substitute means to control agency costs within the firm. If anything, my findings suggest that insider trading laws and ownership are complementary ways to mitigate agency costs, although this result is generally statistically insignificant.

II. PRIOR LITERATURE AND HYPOTHESES

This section summarizes prior literature characterizing insider trading as an agency issue and presents two empirically testable hypotheses.

A. *Insider Trading Ameliorates the Agency Conflict between Managers and Shareholders*

Manne (1966) was the first legal scholar to point out the potential beneficial role of insider trading as a form of compensation. In *Insider Trading and the Stock Market*, he argues that insider trading is valuable to firms because it motivates insiders to be more entrepreneurial (Manne 1966). According to Manne (1966), "entrepreneurs" within the firm, and their productive output, are difficult to identify *ex ante*. Thus, if corporate insiders' compensation is set in advance, the compensation will be inefficient because it will not be calibrated to the insiders' *ex post* entrepreneurial activity. In contrast, when corporate insiders are allowed to engage in insider trading, they will be rewarded (via insider trading profits) in direct proportion to and contemporaneously with their innovations. In this manner, insider trading can maximize insiders' incentives to innovate and thereby improve corporate performance.

Carlton and Fischel (1983) recast Manne's (1966) efficient compensation thesis within the modern framework of agency and contract theory. In their view, capital and product markets do not adequately discipline or incentivize managers because these markets work imperfectly. *Ex ante* compensation contracts are also deficient because they often require costly "periodic renegotiations *ex post* based on (imperfectly) observed effort and output" (Carlton and Fischel 1983, 869).

In contrast, insider trading enables managers to continually update their compensation in light of new information without incurring renegotiation costs. Insider trading increases managers' incentives by linking their "fortunes more closely to those of the firm" (Carlton and Fischel 1983, 877). More specifically, insider trading aligns managers' and shareholders' interests by allowing managers to profit from the increase in firm value caused by their efforts.[11] Carlton and Fischel (1983) also argue that insider trading improves the managerial labor market by reducing firms' screening and monitoring costs[12] because the most capable and least risk averse managers will self-select into the firms that permit insider trading.

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[11] In response, opponents of insider trading argue that managers can also profit from corporate failures that they have caused by taking short positions in their firms' stocks. See Section II.B below.

[12] Lower screening and monitoring costs imply lower agency costs.

The theoretical economics and finance literature also contains several accounts of insider trading as a mechanism to reduce the agency conflict within the firm. Dye (1984) uses a mathematical model to prove Carlton and Fischel's (1983) claim that insider trading may increase shareholder wealth by better aligning manager and shareholder interests than standard earnings-contingent contracts. Bebchuk and Fershtman (1993, 1994) show that insider trading may enhance corporate value by increasing managers' effort levels (Bebchuk and Fershtman 1993) or by causing managers to select risky, but profitable, investment projects that would otherwise be rejected if they were not allowed to trade on inside information (Bebchuk and Fershtman 1994). The mathematical proofs of these propositions formalize Carlton and Fischel's (1983) non-technical arguments. Finally, Noe (1997) demonstrates with a formal model that even if insider trading does not increase insiders' effort levels, it may cost firms less (i.e., involve lower managerial rents) than standard compensation contracts because of a "substitution effect between explicit managerial compensation and insider trading" profits (Noe 1997, 311). That is, when managers engage in insider trading, firms pay them lower salaries.[13]

B. *Insider Trading Exacerbates the Agency Conflict between Managers and Shareholders*

Some law and economics scholars argue that, rather than aligning shareholder and manager interests, insider trading may exacerbate the agency conflict. Kraakman (1991) argues that, through insider trading, managers may be able, *ex post*, to sabotage an efficient *ex ante* compensation contract and thereby counteract performance-based compensation schemes intended to calibrate pay to productivity.

Cox (1986) argues that it is very difficult, in practice, to ensure that those who create valuable information (i.e., entrepreneurial innovations) are the only ones within the firm who are able to profit from it. To the extent that the firm's "true" entrepreneurs cannot exclude other insiders from profiting on the positive information, the "true" entrepreneurs' incentives to innovate will be reduced rather than increased. Furthermore, the non-excludability of insider trading profits may cause the firm's "true" entrepreneurs to conceal their information to monopolize insider trading profits and thus reduce the flow of information and productive efficiency within the firm (Haft 1982).

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[13] Roulstone (2003) confirms the existence of a substitution effect between insider trading and total compensation: "firms that restrict when insiders can trade pay a 4% to 13% premium in total compensation relative to firms that do not restrict insider trading, after controlling for economic determinants of compensation" (Roulstone 2003, 526).

Some legal scholars also argue that allowing managers to trade on inside information may give them the incentives to take on too much risk or to undertake projects that reduce corporate value. Because insider trading is more profitable when stock prices are more volatile, insider trading may encourage managers to undertake excessively risky projects in order to increase volatility that would create private opportunities for profitable insider trading but would reduce corporate value (Kraakman 1991). In addition, because managers can profit from insider trading regardless of corporate performance, insider trading may increase managers' incentive to under-perform by making them indifferent between good and bad corporate performance (Anabtawi 1989; Kraakman 1991; and Klock 1994). If corporate insiders are permitted to sell the firm's shares short, the potential problems of excessive risk-taking[14] and compensation unbundling, induced by insider trading, may be worsened (Klock 1994).

Several theoretical economics and finance articles also demonstrate that insider trading may worsen the agency conflict between managers and shareholders. Manove (1989) formally demonstrates how insider trading can reduce corporate value by discouraging investment because corporate insiders "with private information are able to appropriate some part of the returns to corporate investments . . . at the expense of other shareholders" (Manove 1989, 823).[15] If shareholders suspect such appropriation, they will favor a reduction in corporate investment. Bebchuk and Fershtman (1990) show that insider trading may increase managers' incentive to "waste" corporate value by encouraging them to make decisions that maximize their potential trading profits rather than corporate value.

C. *Insider Trading has an Indeterminate Impact on the Agency Conflict between Managers and Shareholders*

As noted above, some scholars are agnostic about whether insider trading is harmful to the firm and suggest that the effect of insider trading probably varies across firms (Haddock and Macey 1987; Epstein 2004). According to those who espouse this intermediate view, insider trading will raise efficiency in some firms and reduce it in others. Like those who believe that insider trading reduces the agency conflict, proponents of the intermediate view tend to favor private contracting over insider trading regulation because they view private parties as more capable than the government of assessing the effect of insider trading on intra-firm efficiency (see, e.g., Haddock and Macey 1987; Epstein 2004). Private contracting will

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[14] In response, some legal scholars argue that insider trading mitigates managers' excessive risk aversion (Carlton and Fischel 1983).

[15] Douglas (1989) also shows that the information asymmetry due to insider trading transfers wealth from shareholders to insiders.

promote varied and efficient responses to insider trading across firms, they believe. Specifically, firms in which insider trading exacerbates the agency conflict will privately prohibit insider trading, while firms in which insider trading mitigates the agency conflict will privately permit insider trading. Naturally, those who believe that insider trading worsens the agency conflict tend to advocate a blanket insider trading prohibition (see, e.g., Kraakman 1991; Cox 1986).

D. *Dominant Shareholders: Insider Trading and Monitoring*

Another strand of literature addresses the impact of insider trading where there is a dominant (controlling) shareholder in the firm. By virtue of their controlling position, large shareholders have greater access to corporate management and, as a result, to material, nonpublic information. Thus, like managers, large shareholders can earn greater profits from trading than small shareholders can. There are two conflicting views about the impact of insider trading on controlling shareholders' incentives to monitor managers.

Demsetz (1986) and Bhide (1993) argue that insider trading increases controlling shareholders' incentives to monitor managers. Controlling shareholders are beneficial to firms, they argue, because these shareholders have greater incentives to monitor managers (and thus to mitigate the manager-shareholder agency conflict) than small, dispersed shareholders who face collective action problems. However, holding a concentrated ownership position imposes risks on the dominant shareholder, in particular the risks of holding an undiversified portfolio (Demsetz 1986; Bhide 1993). Thus, controlling shareholders must be compensated both for assuming the risks of concentrated ownership and for monitoring managers (Demsetz 1986; Bhide 1993). Demsetz (1986) and Bhide (1993) argue that insider trading profits are a convenient way to compensate controlling shareholders for these activities. Restricting insider trading may therefore have a negative impact on corporate value by reducing controlling shareholders' incentives to monitor by raising the costs and liabilities of active shareholding (Demsetz 1986; Bhide 1993).

In contrast, Maug (2002) suggests that insider trading may adversely affect controlling shareholders' incentives to monitor managers. In Maug's (2002) view, large shareholders may use their dominance in the service of their own (and managers') interests at the expense of small shareholders if they are permitted to engage in insider trading.[16] Using a mathematical

[16] Along similar lines, La Porta et al. (1999) suggest that the primary agency problem in firms with controlling shareholders "is not the failure of the Berle and Means (1932) professional managers to serve minority shareholders, but rather the . . . expropriation of such minorities . . . by controlling shareholders" (La Porta et al. 1999, 3-4). The implication is that the law ought to be concerned not only with

model, Maug (2002) shows how insider trading can induce large shareholders to expropriate corporate value from small shareholders rather than monitor managers. In the model, when managers are performing poorly, they may bribe dominant shareholders not to discipline them by sharing private information with those shareholders. If the firm's stock is sufficiently liquid, trading on such information is profitable and large shareholders may prefer to trade on this information instead of monitoring managers (i.e., foregone trading profits represent the opportunity cost of monitoring). In summary, Maug's (2002) model suggests that banning insider trading may align the interests of controlling and minority shareholders; in contrast, permitting insider trading may increase the likelihood that dominant shareholders will collude with shirking managers, in exchange for trading profits, at the expense of minority shareholders and corporate performance.

The impact of insider trading on managers' and controlling shareholders' incentives, and thus on agency conflicts, is ultimately an empirical question, which has yet to be satisfactorily answered (Easterbrook 1985). This article attempts to answer this question indirectly by investigating the relationship between corporate valuation and insider trading laws across countries.[17] It builds upon La Porta et al.'s (2002) empirical study of the relationship between investor protection and corporate valuation.

E. *Hypotheses*

This article tests two hypotheses regarding the effect of insider trading regulation on the agency conflict in firms that have a controlling shareholder. These hypotheses are as follows:

> *Hypothesis 1 (H1)*: More stringent insider trading laws increase firm value by reducing the controlling shareholder's incentive to divert corporate value through insider trading.[18]

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preventing managerial value diversion but also with containing expropriation by large shareholders (see, e.g., La Porta et al. 1998; La Porta, et al. 1999; and Bukart and Panunzi 2006).

[17] The article by Bhattacharya and Daouk (2002) is distinguishable in that they investigate the relationship between the enactment and enforcement of insider trading laws and the *aggregate* cost of capital across countries. Moreover, while Masson and Madhavan (1991) examine the relationship between executives' insider trading and the marginal value of the firm, their study differs from the present study in several important respects: it is based solely on U.S. data, it considers only legal (not illegal) insider trading, and it does not address the role of insider trading law/enforcement as a potential constraint upon executives' incentives to trade.

[18] The alternative hypothesis is that insider trading laws have no impact (or a negative impact) on corporate value.

Hypothesis 1 (H1) addresses the first order effect of insider trading laws on corporate value. As noted above, the literature contains conflicting accounts of the effect of insider trading on the agency conflict (and hence corporate value). Bhide (1993) and Demsetz (1986) argue that insider trading is beneficial because it compensates controlling shareholders for the valuable monitoring role that they play. The implication is that prohibiting insider trading will reduce controlling shareholders' incentives to monitor managers, to the detriment of corporate value (Bhide 1993). Maug (2002) counters with the claim that prohibiting insider trading will increase controlling shareholders' incentives to monitor managers instead of colluding with them at the expense of minority shareholders. Under Maug's (2002) account, insider trading laws force controlling shareholders to internalize the costs that insider trading imposes upon minority shareholders while reducing their benefits from insider trading. H1, which adopts Maug's (2002) view as the null hypothesis, puts these competing claims to the empirical test.

> *Hypothesis 2 (H2)*: Insider trading laws and the controlling shareholder's financial stake in the firm are substitute means to mitigate the agency conflict. Therefore, the more restrictive the insider trading prohibition, the lower the marginal increase in corporate value from an increase in the controlling shareholder's financial stake in the firm.[19]

Hypothesis 2 (H2) predicts a substitution effect between the insider trading prohibition and the controlling shareholder's financial stake in the firm.[20] For the reasons explained above, the insider trading prohibition may mitigate the conflict of interest between controlling and minority shareholders. The financial stake of the controlling shareholder may also mitigate this conflict.[21] Assuming that insider trading is costly to the firm, the controlling shareholder will bear a greater share of this cost as her financial stake in the firm increases. Thus, if insider trading is detrimental to the firm, her incentive to trade will fall as her ownership stake in the firm increases.

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[19] The alternative hypothesis is that insider trading laws and the controlling shareholder's financial stake are complementary ways to mitigate the agency conflict.

[20] This prediction is analogous to the hypothesized substitution effect between executive compensation and managers' profits from insider trading (Carlton and Fischel 1983). See Easterbrook (1985) on the potential substitutability between insider trading laws and other mechanisms to mitigate the agency conflict between managers and shareholders. See also Bukart and Panunzi (2006), who discuss substitution between investor protection laws and alternative agency cost control devices.

[21] This is the established insight that greater cash flow ownership by corporate insiders (managers, large shareholders, etc.) lowers their incentives to divert corporate wealth from outside investors (see, e.g., Jensen and Meckling 1976; Shleifer and Vishny 1986).

Assuming insider trading is detrimental, the substitution hypothesis (H2) predicts that, as the controlling shareholder's financial stake increases, the marginal valuation effect of an increase in the stringency of the insider trading prohibition will fall. (Equivalently, as the insider trading prohibition becomes more stringent, the marginal valuation effect of an increase in the controlling shareholder's financial stake will fall.)

Table 1 summarizes the article's empirically testable hypotheses.

III. DATA AND SUMMARY STATISTICS

In this section, I describe the data and present summary statistics.

A. *The Data*

La Porta and his co-authors (2002) shared their firm-level data with me.[22] They assembled valuation and ownership information for the twenty largest firms (based on market capitalization) in twenty-seven developed countries (based on 1993 per capita income). La Porta et al. (2002) focused on large firms because it is more difficult to detect the beneficial impact of investor protection laws on large firm corporate value.[23] Their sample excludes firms that are foreign-affiliates as well as banks and other financial institutions (La Porta et al. 2002). Most of the data are for 1995 and 1996, but a few data points come from 1997 and two observations are from before 1995 (La Porta et al. 2002).

Like La Porta et al. (2002), I consider only firms that have an identifiable controlling shareholder. The rationale for such a focus is that controlling shareholders have superior access to inside information relative to small shareholders, and therefore have a greater opportunity to engage in insider trading by colluding with managers at the expense of small shareholders. At the same time, controlling shareholders are better able to monitor managers, in the interest of small shareholders, and presumably will do so if they are adequately compensated. These competing tendencies highlight the tension between the net effect of insider trading on controlling shareholders' incentive to monitor managers and their incentive to expropriate value from minority shareholders (compare Bhide 1993 and Demsetz

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[22] I use La Porta et al.'s (2002) data in part so I can compare the performance of my insider trading law index to the performance of their now classic investor protection measures. In a horse race in regressions discussed below, my insider trading law index overcomes their investor protection measures. See Section V below.

[23] As La Porta et al. (2002) point out, large firms may have several alternative means to constrain expropriation of minority investors, "including public scrutiny, reputation-building, foreign shareholdings, or listings on international exchanges" (La Porta et al. 2002, 16). Consequently, the benefits of legal constraints ought to be harder to detect in large firms.

1986 with Maug 2002). I adopt La Porta et al.'s (2002) definition of control where a shareholder is deemed to have control over the firm if the shareholder owns ten percent or more of the firm's voting shares.

B. *Dependent Variable*

The dependent variable in this study is *Tobin's Q*, a measure of corporate valuation and proxy for agency costs commonly used in corporate finance literature. *Tobin's Q* is the ratio of the market value of the firm to the replacement cost of its assets.[24] A larger *Tobin's Q* suggests that the market values the firm more highly than firms with a lower *Tobin's Q*. A higher *Tobin's Q* may result from the market's optimism about the firm's future growth prospects because of good management, lower agency costs, favorable market conditions, or a high level of goodwill. I use La Porta et al.'s (2002) measure of *Tobin's Q*, which they define as "the book value of assets minus the book value of equity minus deferred taxes plus the market value of common stock" (i.e., the market value of assets) divided "by the book value of assets" (La Porta et al. 2002, 1156). Controlling for other factors that may affect corporate valuation, if insider trading laws mitigate the agency conflict, and thereby reduce agency costs, firms in countries with more stringent insider trading laws ought to have higher *Tobin's Qs*.

C. *Independent Variables*

Both countries' insider trading laws and controlling shareholders' financial stakes in firms may influence the controlling shareholders' choice between monitoring and colluding with managers, as discussed above. Thus, I include measures of these characteristics as independent variables in the regressions presented in Section IV.

Hypothesis 1 (H1) predicts that firms in countries with more stringent insider trading laws have higher market valuations because such laws reduce controlling shareholders' incentive to divert corporate value through insider trading. As a measure of the stringency of insider trading laws, I use Beny's (2005) insider trading law index (*ITL*).[25] *ITL* is an index of five

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[24] *Tobin's Q* is not a perfect measure of firm valuation since the numerator partly reflects the market value of intangible assets and the denominator does not. See Demsetz and Villalonga (2001) for a more thorough discussion of the pros and cons of *Tobin's Q* relative to alternative valuation measures. Nevertheless, *Tobin's Q* is one of the most commonly used measures of corporate value in corporate finance literature.

[25] In Beny (2007) I explain, in more detail, the rationale for including each element of the law in the insider trading law index. There is one minor difference, however, between the insider trading law index in Beny (2007) and the one in this article, namely, the index in the former article excludes the

substantive elements of each country's insider trading law: (1) whether the law prohibits insiders from tipping outsiders; (2) whether the law prohibits trading by tippees[26]; (3) whether the law provides a private right of action to investors who traded opposite the insider(s) who in turn traded in violation of the country's insider trading law; (4) whether the potential damages are a multiple of the insider's trading profits; and (5) whether violation of the law is a criminal offense. Each element is assigned the value of 0 or 1 and the total *ITL* index is the sum of the individual elements. Thus, *ITL* equals five in countries with the most prohibitive insider trading laws (e.g., the United States) and *ITL* equals 0 in countries with the least prohibitive insider trading laws (e.g., Mexico and Norway).[27] The insider trading laws of all the countries in the sample prohibit insider trading by controlling shareholders, either directly or indirectly. Thus, at least in theory, controlling shareholders who engage in illegal insider trading in these countries are subject to the sanctions coded in the Beny (2005) index.

The insider trading laws on the books are one matter; whether they are enforced, and to what degree, is another matter altogether. The laws' deterrent effect is a joint function of their substantive content and the probability that they will be enforced (see, e.g., Zimring and Hawkins 1973). Unfortunately, reliable international data on the frequency and degree of insider trading enforcement are not available. Thus, for the time being, I must rely on a fairly rudimentary enforcement measure. That measure is a dummy variable that is equal to 1 if a country's insider trading law was enforced at least once prior to 1994 and 0 otherwise.[28] I call this measure *Enforced* and I include it as an independent variable in the regressions. I also include the interaction between (i.e., the product of) *ITL* and *Enforced* in the regressions.

The underlying data from which I construct the variable *Enforced* are from Bhattacharya and Daouk (2002) who report the year in which over one hundred countries enforced their insider trading laws for the first time. This measure of enforcement is admittedly problematic. That a country has enforced the law at least once by 1994 does not provide much insight on the frequency and degree of enforcement. Nevertheless, it may be a proxy

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private right of action component and treats it as a separate variable. The results in Beny (2007) are not sensitive to inclusion or exclusion of the private right of action component, however.

[26] Tippees are outsiders who receive material nonpublic information from corporate insiders who are prohibited from trading on the basis of such information themselves.

[27] All of the countries in the sample had insider trading laws on the books as of 1994. In fact, most stock markets have insider trading laws, but the rate and timing of enforcement varies considerably across markets. (See Bhattacharya and Daouk 2002 and Beny 2008).

[28] I chose 1994 as the cut-off date because the dependent variables come from the period of 1995-1996 and the insider trading law indices are based on the sample countries' insider trading rules as they existed around the same period. Both the content and the enforcement of these laws may have changed in many of these countries since 1994. See Herrington (2004) for more recent measures of insider trading rules and enforcement across countries.

(even if a noisy one) for active enforcement based on the logic that having been enforced once, a law is more likely to be enforced again. It may also distinguish sham regimes from non-sham or partially-sham regimes. H1 predicts that the regression coefficients on both *Enforced* and the product of *ITL* and *Enforced* will be positive.

Hypothesis 2 (H2) predicts a substitution effect between the insider trading prohibition and the controlling shareholder's financial stake in the firm. That is, H2 predicts that as the controlling shareholder's financial stake increases, the marginal positive effect (on corporate value) of an increase in the stringency of the insider trading prohibition will fall. As a measure of the controlling shareholder's financial stake, I use La Porta et al.'s (2002) measure of the proportion of the firm's cash flow rights directly and indirectly owned by the controlling shareholder. I control for this measure directly in the regressions because, as noted above, when the controlling shareholder has a greater financial stake in the firm, she will bear a greater proportion of any losses caused by the agency conflict that may be exacerbated by insider trading. In addition, to test H2, I include the interaction between (i.e., the product of) the insider trading law index, *ITL*, and the controlling shareholder's financial stake as a separate independent variable in the regressions. H2 predicts that the regression coefficient on this interaction term will be negative.

D. *Control Variables*

I include several additional control variables in the regressions below. Prior research shows that corporate valuation is positively related to the firm's investment opportunities. Following La Porta et al. (2002), I use sales growth as a proxy for the firm's investment opportunities. La Porta et al. (2002) define sales growth as the average annual rate of growth of the firm's sales for the previous three-year period (or fewer years, if three years' of sales data are unavailable).

Prior research also demonstrates that common law legal origin is positively related to the level of investor protection in a country and to the country's degree of financial development and corporate valuation. Conversely, civil law legal origin is negatively related to investor protection, financial development, and corporate valuation (see, e.g., La Porta et al. 1997, 1998, 2002).[29] Therefore, I include a dummy variable that equals 1 if the firm's country is a common law country and 0 if the firm's country is a civil law country. I also control for industry because corporate valuation is likely to vary systematically by industry, as discussed below.

The data are described in Table 2.

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[29] Roe (2006) argues, however, that politics explains different levels of financial development across countries better than legal origin.

E. *Summary Statistics*

Table 3 presents the mean and median values of several key variables for the full sample and for each individual country in the sample. I divide the sample into two regimes: Low *ITL* and High *ITL*. The cutoff between High *ITL* and Low *ITL* is the median value of the interaction term, *ITL*Enforced*, which equals two. I classify countries with a value of *ITL*Enforced*, greater than the median of two, as High *ITL* regimes, while I classify those with a value of *ITL*Enforced*, that is less than or equal to the median of two, as Low *ITL* regimes. Consistent with H1, the High *ITL* countries have higher mean and median values of *Tobin's Q* than the Low *ITL* countries; the t-test statistic reveals that the difference in mean *Tobin's Q* between the High *ITL* and the Low *ITL* countries is statistically significant at the 1% level. However, the difference in median *Tobin's Q* between the High *ITL* and the Low *ITL* countries is not statistically significant.

Consistent with H2, Table 3 also shows that the controlling shareholder tends to own a larger fraction of the firm's cash flows in the Low *ITL* countries than in the High *ITL* countries. The differences in both mean and median cash flow ownership between the two regimes are statistically significant at the 1% level. Finally, mean and median sales growth are higher in the High *ITL* countries than in the Low *ITL* countries, and the difference is statistically significant at the 10% and 1% levels, respectively. This suggests that the firms in the High *ITL* countries tend to have greater investment opportunities than the firms in the Low *ITL* countries.

Table 4 presents the means by legal origin. The common law countries in the sample have a greater average value of *ITL* than the civil law countries in the sample. This difference is statistically significant at the 1% level. Nearly half of the common law countries have enforced their insider trading laws at least once. In comparison, only twenty-five percent of the civil law countries have enforced their insider trading laws at least once. This difference is statistically significant at the 1% level. Average *Tobin's Q* is higher for the firms in civil law countries than for the firms in common law countries and the difference is statistically significant at the 1% level. Finally, mean sales growth, a proxy for investment opportunities, is not significantly different between the common law and civil law firms.

Table 5 presents simple correlations highlighting the relationship between *Tobin's Q* and several key variables. *Tobin's Q* is positively correlated with *ITL* (correlation coefficient of 0.09 and 5% statistical significance) and *Enforced* (correlation coefficient of 0.11 and 1% statistical significance). Although they are not large, these correlations are consistent with H1, which predicts a positive relationship between insider trading law and corporate valuation (see Table 1). *Tobin's Q* is also positively correlated with sales growth (correlation coefficient of 0.23 and 1% statistical significance). While the magnitudes of the foregoing correlation coefficients are not large, they are consistent with ex ante expectations. Control-

ling for other factors that may affect corporate valuation, multivariable regression analysis will reveal whether the positive association between *Tobin's Q* and insider trading laws withstands deeper scrutiny.

IV. METHODOLOGY AND REGRESSION RESULTS

A. *Methodology*

To test Hypotheses 1 and 2 (H1 and H2), I estimate variations on the following basic regression:

$$\text{Tobin's Q} = \beta_0 + \beta_1\text{SalesGrowth} + \beta_2\text{ITL} + \beta_3\text{Ownership} + \beta_4\text{ITL*Ownership} + \varepsilon$$

where *Tobin's Q* (the dependent variable) is a measure of corporate valuation, *SalesGrowth* is the average annual rate of sales growth for the previous three years, *ITL* is the insider trading law index, *Ownership* is the controlling shareholder's financial stake (cash flow rights) in the firm, and *ITL*Ownership* is the product of the two previous variables. H1 predicts that B_2 will be positive while H2 predicts that B_4 will be negative. I also report alternative specifications to the basic regression, as explained below. I consider a coefficient to be statistically significant if it is at least significant at the 10% level.

I use random effects maximum likelihood estimation because the errors are not independent within countries and this methodology takes into account within and between country variation, adjusting the standard errors to reflect the correlation among observations from the same country. In all of the regressions reported below, the dependent variable is the log of 1 plus *Tobin's Q*. I take the log of *Tobin's Q* because its distribution is skewed to the right and a log transformation of *Tobin's Q* yields a more normal distribution. Each firm's *Tobin's Q* is adjusted by industry; for each firm, *Tobin's Q* equals its *Tobin's Q* minus the worldwide median *Tobin's Q* for all of the firms in the same industry. The rationale for this adjustment is to eliminate industry-specific components of valuation.

B. *Results*

Table 6 presents the results of random effects regressions. The regressions in Panel A use the insider trading law index, *ITL*, while the regressions in Panel B use the interaction term, *ITL*Enforced*. In all of the regressions in both panels, the coefficient on sales growth is positive and significant. In column (1) of Panel A, the coefficient on *ITL* is positive, consistent with H1 (see Table 1); however, it is statistically insignificant. In

column (2) of Panel A, the coefficient on cash flow ownership of the controlling shareholder is positive and significant at the 10% level. In column (3) of Panel A, the coefficient on the interaction, *ITL*Enforced*, and cash flow ownership is positive and significant at the 10% level, suggesting that cash flow ownership and insider trading laws are complementary. This result is inconsistent with H2 (the "Substitution" Hypothesis), which predicts a negative coefficient on the interaction between *ITL* and cash flow ownership (see Table 1). Finally, none of the coefficients on the independent variables, except sales growth, are statistically significant when I include them jointly in a single regression in column (4) of Panel A.[30] The regressions in Panel B, which replace *ITL* with *ITL*Enforced*, but are otherwise identical to the regressions in Panel A, yield similar results to those in Panel A.

It may be inappropriate to lump all of the firms together, as I do in Table 6, without allowing for heterogeneity—that is, systematic differences in the effect of insider trading laws on agency costs—among the sample firms. Prior research has shown that financial markets and corporate governance structures differ significantly between common law and civil law countries (see, e.g., La Porta et al. 1997, 1998). Consistent with this research, I find significant differences by legal origin among the firms and countries in my sample. For instance, the common law firms tend to have significantly more liquid shares than the civil law firms. In addition, the ownership and control stakes of controlling shareholders tend to be more closely aligned in the common law firms than in the civil law firms. Moreover, controlling shareholders are more likely to be corporations (as opposed to families, the state, or financial institutions) in the common law firms relative to the civil law firms. Finally, the common law countries have significantly greater investor protections (as measured by La Porta et al.'s (1998) original anti-director rights index), a significantly greater frequency of insider trading law enforcement (as measured by the variable *Enforced*), significantly more liquid stock markets, and a significantly greater frequency of corporate acquisitions relative to the civil law countries.

Therefore, I allow for heterogeneity between the common law and civil law firms by interacting the variables of interest with the dummy variable for common law origin in a new set of regressions.[31] I also address multicollinearity between *ITL* and the interaction terms by centering *ITL* on its sample mean. The dependent variable is still the log of 1 plus *Tobin's*

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[30] This may result from multicollinearity among these variables.

[31] While country fixed effects estimation would be a preferable approach, I am unable to run fixed effects regressions because the insider trading law variables already serve as country dummy variables. Also, I do not split the sample into common law and civil law firms because that would reduce the variation among the independent variables. Below, I discuss the effect of controlling explicitly for several factors that one may expect to differ systematically between the common and civil law countries and firms.

Q, where, as explained above, *Tobin's Q* is adjusted by industry. The independent variables are sales growth, cash flow ownership, centered-*ITL*, and several interaction terms between common law origin and various other variables that I explain as I present the results. The results are reported in Table 7.

In column (1) of Table 7, the coefficient on centered-*ITL* is negative but insignificant, while the coefficient on the interaction between centered-*ITL* and common law is positive and significant at the 1% level. The regression in column (2) is the same as the regression in column (1), except that in column (2) I control for common law origin. This has two effects: first, the coefficient on centered-*ITL* becomes significant at the 10% level; and second, the net effect of cash flow ownership becomes negative for the common law firms.

In columns (3) and (4) of Table 7, I replace centered-*ITL* with the interaction between centered-*ITL* and *Enforced*. The results in columns (3) and (4) are consistent with those in columns (1) and (2). The coefficients on centered-*ITL*Enforced* are negative (albeit insignificant) in columns (3) and (4), while the coefficients on the interaction between centered-*ITL*Enforced* and common law origin are positive and significant at the respective 1% and 5% levels for the firms in common law countries.[32] The regressions in Table 7 also suggest that although cash flow ownership is generally associated with greater corporate valuation (i.e., cash flow ownership by the controlling shareholder has an incentive effect), this effect is stronger for the firms in civil law countries than for the firms in common law countries.[33] Inconsistent with H2, the coefficients on the interaction terms between cash flow ownership and the insider trading measures are positive (see rows (8)-(11)), suggesting that cash flow ownership and insider trading laws are complements rather than substitutes. However, these coefficients are insignificant.

In summary, the results in Table 7 suggest that H1 accurately describes the firms in common law countries, but H1 does not accurately describe the firms in civil law countries. Specifically, insider trading laws are positively associated with corporate valuation for the firms in common law countries (see rows (4) and (5) of Table 7). In contrast, for the firms in civil law countries, insider trading laws are (at best) irrelevant to corporate valuation (see row (3) of Table 7) and (at worst) negatively associated with corporate valuation (see row (2) of Table 7). While cash flow ownership of the controlling shareholder is generally positively associated with corporate valuation for the firms in civil law countries, the results on cash flow ownership are mixed for the firms in common law countries. Finally, inconsis-

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[32] The regression in column (4) differs from the regression in column (3) only in that it controls for common law origin.

[33] This result is consistent with Durnev and Kim (2005), who find that the incentive effect of cash flow ownership is more important when investor protection is weaker, as it is in civil law countries.

tent with H2, there does not appear to be a substitution effect between insider trading law and the controlling shareholder's equity stake in the firm. To the contrary, the coefficients in rows (8) through (11) in Table 7 suggest that, if anything, there is a complementary relationship between cash flow ownership and insider trading law. However, this relationship is statistically insignificant.

V. ROBUSTNESS CHECKS

In this section, I address several potential robustness concerns. First, I investigate whether the results are robust to controlling for a firm's industry. The regressions in Tables 6 and 7 do not control for industry. However, corporate valuation may vary systematically by industry (see, e.g., Demsetz and Lehn 1985). Industry variation in corporate valuation may result in some industries being inherently more prone than others to private benefits extraction (i.e., "amenity potential," according to Demsetz and Lehn 1985). Another reason for industry variation in valuation may stem from different industries being at different stages of growth (La Porta et al. 2002). Thus, a common approach in the literature is to control for industry in corporate valuation regressions (see, e.g., Demsetz and Lehn 1985; Morck et al. 1988; and Claessens et al. 2002). I add industry dummies to the regressions and substitute La Porta et al.'s (2002) industry-adjusted sales growth variable for the raw sales growth measure. La Porta et al. (2002) define industry-adjusted sales growth as the difference between the firm's sales growth and the world median sales growth among firms in the same industry. Using industry-adjusted sales growth instead of raw sales growth controls for the possibility "that different industries may be at different stages of maturity and growth that determine their valuations" (La Porta et al. 2002, 1159).

Second, I address the potential endogeneity of corporate ownership. Thus far, I have assumed that the controlling shareholder's ownership stake is exogenous, i.e., determined independently of the country's insider trading laws. This assumption may be incorrect. La Porta et al. (1998) show that corporate ownership tends to be more concentrated in countries with weak investor protections than in countries with strong investor protections. Similarly, in other work I show that ownership concentration is greater in countries with lax insider trading laws than in countries with stringent insider trading laws, controlling for legal origin, anti-director rights, and other factors relevant to ownership concentration (Beny 2005). If the controlling shareholder's ownership stake is endogenous to the country's legal rules governing financial markets, the results in Table 7 may be biased. I address this issue in the same manner as La Porta et al. (2002). They address the issue by considering only "within-country variation in cash-flow ownership (fixed effects estimation), which is arguably more exogenous to the legal regime." They achieve this by replacing the raw measure of the controlling

shareholder's cash flow ownership with the difference between the controlling shareholder's cash flow ownership at the firm level and the country average of the same variable (La Porta et al. 2002, 1166).

The results of the foregoing adjustments are presented in Table 8. A comparison of Tables 7 and 8 reveals that the results are substantively the same after I make these adjustments.[34]

Another concern is whether the results are influenced by omitted variables. As discussed above, heterogeneity in the relationship between insider trading laws and corporate valuation among the sample firms may result from systematic differences between common law and civil law countries in factors relevant to the relationship between insider trading laws and corporate valuation. These factors include various financial, market, regulatory and institutional characteristics. In Table 7, I address this issue by interacting the insider trading law and ownership variables with common law origin. However, if the data are available, it is preferable to control directly for the relevant factors that may systematically differ between common law and civil law countries.

I address omitted variables by explicitly controlling for several potentially relevant financial, market, regulatory and institutional characteristics of the sample countries and firms, including: (1) enforcement environment and judicial efficiency; (2) liquidity of the firm's shares and the stock market; (3) corporate disclosure; (4) market participants' perception of the severity of insider trading in the stock market; (5) the firm's control structure and the strength of the country's corporate law; (6) the market for corporate control; and (7) the controlling shareholder's identity. I explain the rationale and effect of controlling for each of these factors in turn.[35]

First, the results may derive from the general quality of the legal system rather than insider trading law if countries with more stringent insider trading laws also have more stringent enforcement, stronger rule of law, or more efficient judiciaries than countries with less stringent insider trading laws.[36] I alternately control for each of these country characteristics using the following variables: the dummy variable *Enforced*, which is a dummy variable equal to 1 if the country enforced its insider trading law for the first

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[34] The major differences between Tables 7 and 8 are that: (1) most of the statistically significant coefficients in Table 7 become even more significant in Table 8; (2) the coefficient on centered-*ITL*Common Law* becomes slightly smaller (compare row (4) in Table 7 with the same row in Table 8); (3) the coefficients on centered-*ITL*Enforced*Common Law* decrease in magnitude (compare row (5) of Table 7 with the same row in Table 8); and (4) the positive coefficient on cash flow ownership (row (6) in Tables 7 and 8) becomes significant at the 5% level in every regression in Table 8, in contrast to Table 7, where the coefficient on cash flow ownership (row (6)) is insignificant in column (1) and significant at only the 10% level in column (2). Otherwise, the results in Tables 7 and 8 are essentially the same.

[35] I do not present the results of these regressions in the interest of brevity, but can provide interested readers with the results upon request.

[36] Beny's (2005) evidence suggests that this is the case.

time by 1994 and 0 otherwise; a measure of the rule of law from La Porta et al. (1998); and an index of judicial efficiency from La Porta et al. (1998). Table 2 describes these variables in greater detail. The results are robust to controlling for each of these variables.

Second, the different relationship between insider trading laws and valuation between the common law and civil law firms may result from systematic differences in share liquidity between the two legal systems. Specifically, if common law firms tend to have more liquid shares than civil law firms, and if there is a positive relationship between stock market liquidity and insider trading laws,[37] the positive relationship observed between valuation and insider trading laws among the common law firms may stem from the fact that these firms have more liquid shares than civil law firms[38] since investors are willing to pay a liquidity premium (Amiuhud and Mendelson 1986; La Porta et al. 2002).

I investigate the effect of liquidity by controlling for both stock market liquidity and individual firm liquidity using data from the World Bank and Datastream. Both liquidity measures are described in detail in Table 2. These data confirm that both stock markets and individual firm stocks are more liquid in the common law sample countries.[39] As expected, the coefficients on both stock market liquidity and firm liquidity are positive and significant in the *Tobin's Q* regressions. However, the results are robust to controlling for both liquidity measures.[40]

Third, the regressions in Table 7 do not control for the quality of corporate disclosure. Academics and lawmakers have long noted the close relationship between disclosure rules and insider trading laws. More punctual and higher quality disclosure ought to reduce insiders' opportunity to trade profitably relative to the rest of the market (Baiman and Verrecchia

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[37] Georgakopoulos (1993) argues that it is only when the stock market becomes sufficiently liquid that there is adequate social demand for insider trading regulation. The explanation could be that insider trading is more profitable and thus more likely to occur the more liquid is the stock market, other things equal (Maug 2002). But see Bhide (1993), who argues that causality runs from insider trading laws to liquidity, rather than the reverse. In any event, stock markets do tend to be more liquid in countries with more stringent insider trading laws and enforcement (Bhattacharya and Daouk 2002; Beny 2005, 2007).

[38] Civil law firms' shares may be relatively illiquid because ownership is more concentrated among these firms. According to Bhide (1993), "when stockholding is fully diffuse, the firm's stock is likely to be the most liquid." (Bhide 1993, 45-46). Consistent with this claim, Eleswarapu and Krishnamurti (1999) find that ownership concentration and liquidity are inversely related among Indian firms.

[39] Ownership (of the controlling shareholder) is also more concentrated among the civil law firms (see Table 4).

[40] La Porta et al. (2002) address liquidity indirectly by investigating whether the sample firms that have American Depository Receipts (ADRs) traded in the U.S. have higher valuations than those without ADRs. They find a small positive effect of ADRs for the common law firms but not for the civil law firms, which is "inconsistent with the view that liquidity drives [their finding that valuation is greater for common law firms than for civil law firms] since, on that theory, the benefit of an ADR for valuation ought to be higher in less liquid markets (in civil law countries)" (La Porta et al. 2002, 1165).

1996; Fried 1997; Maug 2002; and Shin 1996).[41] I control for two measures of disclosure. First, I control for the quality of accounting standards, as reported by La Porta et al. (1998). This index ranks countries according to the quality of their corporate disclosure practices as of 1990. Second, I control for a measure of legal disclosure requirements, constructed by La Porta et al. (2006). This index measures how much corporate governance-relevant information firms are legally required to include in their offering prospectuses. I describe both disclosure variables in more detail in Table 2. Alternately controlling for these disclosure variables has no effect on the results reported above.

Fourth, the results may arise because I do not control for the public perception of insider trading. A perception that insider trading is more prevalent in common law countries may explain why insider trading regulation is more strongly and positively associated with corporate valuation in such countries. To address this issue, I control for the perception of insider trading, using a measure from the World Economic Forum's *Global Competitiveness Report 1996* (1996), which is described in Table 2. Controlling for the perception of insider trading does not alter the results. In fact, for the countries in my sample, the public perception of insider trading is greater among the civil law countries than among the common law countries. This suggests a plausible alternative interpretation of the results, namely, holding constant the public perception of insider trading activity, the investing public may view insider trading regulations to be less effective at controlling such activity in civil law countries than in common law countries. However, it may also mean that there are offsetting benefits to insider trading in civil law countries. I discuss these issues in more detail below.

Fifth, the results may result from systematic differences in controlling shareholders' incentive and ability to extract private benefits. Such differences may be caused by systematic differences in corporate control structures, corporate laws, or some combination thereof, between civil law and common law countries. Consider Maug's (2002) theoretical framework in which large shareholders face a tradeoff between monitoring and engaging in insider trading.[42] Other things equal, the greater the controlling share-

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[41] Indeed, an important pillar of U.S. insider trading legislation is the "disclose or abstain" rule, which requires that insiders either disclose material nonpublic information or refrain from trading on the basis of such information. See *S.E.C. v. Texas Gulf Sulfur Co.*, 401 F.2d 833 (2d Cir. 1968). Several other countries effectively follow the "disclose or abstain" approach.

[42] Managers may bribe large shareholders not to monitor by giving them private information on which they can profitably trade. If large shareholders' marginal payoffs from trading are greater than their marginal payoffs from monitoring, they will choose trading over monitoring (Maug 2002).

holder's incentive and ability to extract private benefits, the more likely she is to trade rather than to monitor at the margin.[43]

As a proxy for the controlling shareholder's incentive to extract private benefits I use the "control wedge," which is the divergence between the controlling shareholder's control and ownership stakes in the firm, which I borrow from La Porta et al. (2002).[44] The larger the control wedge, the greater the deviation from one-share-one-vote and thus, the greater the controlling shareholder's incentive to extract private benefits at the expense of minority shareholders (Grossman and Hart 1988; Morck, Shleifer, and Vishny 1988; Harris and Raviv 1988; Shleifer and Vishny 1997; Bebchuk, Kraakman, and Triantis 2000; and La Porta et al. 2002). Consistent with this, empirical research has shown that there is a tradeoff between ownership and control, with corporate valuation increasing in the controlling shareholder's cash flow ownership (the *incentive effect*) and decreasing in the controlling shareholder's voting control (the *entrenchment effect*) (Morck, Shleifer, and Vishny 1988; Claessens et al. 2002; Morck, Stangeland, and Yeung 2000; and Durnev and Kim 2005).

As a proxy for the controlling shareholder's ability to extract private benefits, I use three measures of the stringency of a country's corporate laws (i.e., investor protection): (1) La Porta et al.'s (1998) original anti-director rights index; (2) Djankov et al.'s (2006) revised anti-director rights index; and (3) Djankov et al.'s (2006) anti-self-dealing index.[45] Alternately controlling for the control wedge and each investor protection variable does not alter the results. In fact, the insider trading law variables overcome La Porta et al.'s (1998) original anti-director rights index and Djankov et al.'s (2006) revised anti-director rights and anti-self-dealing indices. The coefficients on the insider trading law variables remain positive and significant for the common law sample firms, while the coefficients on the anti-director and anti-self-dealing variables are insignificant.

Sixth, it may be inappropriate to ignore the market for corporate control. Corporate takeovers provide a fertile and common context for insider

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[43] However, for this logic to explain the results in Tables 7 and 8, it ought to be the case that controlling shareholders have greater incentives to expropriate private benefits in the common law countries. But that does not describe the empirical pattern revealed in the law and finance literature.

[44] I use two measures of the control wedge, the arithmetic difference and the ratio between the controlling owner's control and ownership stakes. The results are the same with either measure.

[45] La Porta et al. (2002) find that common law origin and stronger anti-director rights are associated with higher corporate valuation for their same sample of firms. The results above may be driven by anti-director rules, rather than by insider trading laws, if countries that have stricter anti-self-dealing corporate laws also tend to have more stringent insider trading laws. Indeed, they do for this sample. The correlation coefficients are 0.36 (significance 1%) between the original anti-director rights index (La Porta et al. 1998) and *ITL*; 0.27 (significance 1%) between the revised anti-director rights index (Djankov et al. 2006) and *ITL*; and 0.44 (significance 1%) between the anti-self-dealing (Djankov et al. 2006) index.

trading.[46] The more competitive the market for corporate control, the greater the potential profits from trading on the basis of private information about an impending takeover, because greater competition increases takeover premia (Burkart et al. 1998). The market for corporate control is less competitive when control is more closely held, as it tends to be among firms in civil law countries (see, e.g., Dyck and Zingales 2004; Nenova 2003). In addition, holdout problems are less severe when ownership is more concentrated, as it tends to be in firms in civil law countries, driving down the price of corporate acquisitions. For these reasons, corporate takeovers may present less lucrative trading opportunities in civil law countries, other things equal. In short, if the market for corporate control is less competitive in civil law countries than in common law countries, this may partly explain the apparent irrelevance of insider trading laws to corporate valuation in the sample civil law firms to the extent that most insider trading occurs around takeovers.[47]

Therefore, I control for three measures of the market for corporate control. First, I control for the average percent of acquisitions that were successful between January 1, 1990 and December 31, 1999 from Bris (2005). Second, I control for the ratio of the average per capita market value of acquisitions in constant U.S. dollars between January 1, 1990 and December 31, 1999 from Bris (2005) to GDP in 1995 U.S. dollars. Finally, I control for the average percent of acquisitions that were hostile between January 1, 1990 and December 31, 1999 from Bris (2005). In addition to the preceding measures of the market for corporate control, I also use the mean and median values of the block premium as a percentage of firm equity value from Dyck and Zingales (2004). Dyck and Zingales (2004) use the block premium to infer the private benefits of control across countries. The block premium may also be a proxy for the degree of competition in the market for corporate control, a higher (lower) block premium suggesting less (more) competition in the market for corporate control. Bris' (2005) corporate control and Dyck and Zingales' (2004) block premia data are described in greater detail in Table 2. Alternately controlling for the

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[46] Two recent studies that document insider trading around corporate takeovers are Ackerman and Maug (2006) and Bris (2005). Bris (2005) studies the relationship between the profitability of insider trading around corporate takeovers and insider trading law and enforcement, finding that insider trading is less profitable when the law is more stringent. Ackerman and Maug (2006) study the relationship between insider trading laws and enforcement and the predictability of takeover announcement returns and find that there is less private information trading in stock markets governed by more stringent insider trading laws. Both Bris (2005) and Ackerman and Maug (2006) use Beny's (2005) index of insider trading law.

[47] Bris' (2005) data suggest that the likelihood of a corporate takeover is greater in common law countries, although the relative market value of a corporate takeover seems to be larger in civil law countries. It is unclear which way this information cuts.

preceding measures of the market for corporate control and the block premium does not alter the results.[48]

Seventh, the identity of the controlling shareholder may be relevant if different controlling shareholders have different incentives to extract private benefits of control. For example, a controlling shareholder that is a family may have stronger incentives or proclivity to engage in insider trading than a controlling shareholder that is a corporation.[49] Perhaps civil law and common law countries have a differential prevalence of types of controlling shareholders. Thus, I control for the controlling shareholder's identity using La Porta et al.'s (2002) data (see Table 2). This does not change the results.

The results are also robust to controlling for GDP per capita. In fact, the civil law countries of my sample have slightly higher average GDP per capita than the common law countries, although the difference is statistically insignificant. Finally, I check whether any country drives the results by sequentially dropping each country from the regressions in Table 7. No single country drives the results.

VI. CONCLUSION

This article yields two main findings. First, for the sample firms in common law countries, insider trading laws and enforcement are positively associated with higher corporate valuation. This evidence supports the claim that insider trading regulation mitigates agency costs. In contrast, the relationship between valuation and insider trading law is negative (but generally insignificant) for the firms in civil law countries. Second, the results do not support the notion that cash flow ownership and insider trading laws are substitute means to control agency costs. If anything, the results suggest that insider trading laws and equity ownership are complementary ways to mitigate agency costs, although this finding is generally statistically insignificant.

The result that insider trading laws are positively associated with corporate valuation in the common law countries but not in the civil law countries, even though I control for many relevant characteristics that may systematically differ between common and civil law countries, is puzzling. There are at least two possible explanations for this result. The first poten-

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[48] None of the coefficients on Bris' (2005) acquisition measures is significant. However, the coefficients on Dyck and Zingales' (2004) block premia measures—mean block premium and median block premium—are negative and significant at the 1% and 5% levels, respectively.

[49] Hung and Trezevant (2004) find that insiders of Southeast Asian firms that are controlled by the wealthiest families seem to be especially aggressive in trading on inside information. Their data are for firms in Indonesia, Malaysia, the Philippines, and Thailand. My sample does not include firms from any of these countries.

tial explanation is an economic rationale. Demsetz (1986) and Bhide (1993) suggest that insider trading laws have a perverse effect on corporate value by reducing large shareholders' incentives to engage in corporate monitoring because these laws reduce insider trading profits, which compensate for such monitoring. Perhaps the results can be seen in this light—that is, insider trading laws may discourage large shareholders from monitoring in civil law countries but not in common law countries. However, the negative relationship between insider trading laws and corporate valuation among the civil law firms is generally statistically insignificant, which is inconsistent with Demsetz' (1986) and Bhide's (1993) hypothesis. Instead, the results suggest that insider trading laws may have a beneficial impact on monitoring at best and no effect at worst.

The second potential explanation for the difference between common law and civil law firms is a legal/institutional rationale. More specifically, insider trading laws may be relatively ineffective in civil law countries. Indeed, recent research suggests that insider trading laws are less effective in countries where investor protections are relatively weaker, as in civil law countries. Durnev and Nain (2005) argue that, where investor protection is sufficiently weak and controlling shareholders are prohibited from trading, these shareholders may compensate for lost trading profits by engaging in various covert forms of expropriation. In addition, Durnev and Nain (2005) find that if investor protection is sufficiently weak, "private information trading may remain unchanged and even increase in the presence of insider trading restrictions" (Durnev and Nain 2005, 22).[50] Similarly, Grishchenko et. al. (2002) find that "stocks . . . that provide better investor protection [and information disclosure] exhibit less private information trading" (Grishchenko et. al. 2002, 1). In contrast, Durnev and Nain (2005) find that insider trading laws unambiguously reduce private information trading "in countries where shareholder rights are well protected" (Durnev and Nain 2005, 22).[51] Furthermore, Bhattacharya and Daouk (2005) suggest that the cost of equity (a proxy for agency costs) may actually increase when a country merely enacts, but does not enforce, insider trading legislation.

The problem with the legal/institutional explanation is that the common law-civil law dichotomy is robust to controlling for various legal and institutional differences among the countries in my sample. Nevertheless, the robustness of the dichotomy to such controls may arise because the existing legal and institutional data are unsatisfactory. If that is the case,

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[50] According to Durnev and Nain (2005), "[t]he opaque informational environment that often accompanies covert activities of controlling shareholders can, in turn, increase the information acquisition activity of market professionals who trade at the expense of uninformed investors" (Durnev and Nain 2005, 25).

[51] Similarly, Ackerman and Maug's (2005) evidence suggests that insider trading laws have a greater impact "in countries with more effective" judicial systems; but, there is no reason to expect judiciaries to be more efficient in common law countries than in civil law countries.

comparative law and finance scholars ought to construct better measures of the legal order and, particularly, the securities regulatory and enforcement environment (see La Porta et al. 2006 for a recent comparative study of securities laws and enforcement).

Over the past two decades, there has been a concerted international effort to encourage countries to adopt insider trading laws and to vigorously enforce such laws (Haddock and Macey 1986; Gevurtz 2002). However, the results of this article suggest that insider trading laws are not uniformly associated with corporate valuation, a proxy for agency costs, across countries. Indeed, the results suggest that insider trading laws may not be an effective way to reduce agency costs in civil law countries. Consequently, this article's results could be read to support contractualists who oppose a one-size-fits-all approach (i.e., a mandatory prohibition) to insider trading (Carlton and Fischel 1983; Haddock and Macey 1987; and Epstein 2004).[52]

Such a reading of the results of this article is unwarranted, however. If the contractualists are to satisfy the burden of proving that mandatory insider trading laws exacerbate agency costs, they must show that stringent insider trading laws have a negative net impact on corporate valuation.[53] Thus far, they have not met this burden. Moreover, the evidence in this article does not support such a claim. Rather, I find that insider trading laws are either positively associated with corporate value (in common law countries) or are unrelated to corporate value (in civil law countries). In addition, private contractual approaches to insider trading are inherently problematic because of transaction costs, uncertainty, and externalities,[54] and may be unenforceable by private parties (see, e.g., Easterbrook 1985; Cox 1986). Furthermore, the apparent insignificance of insider trading laws to firms in civil law countries may stem from relatively lax enforcement of these laws in civil law countries (see Jackson and Roe 2006). If that is the case, the appropriate policy response may be greater sanctions and more stringent enforcement, not repeal of insider trading laws, in the latter countries.

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[52] The reader will recall that contractualists include those who believe that insider trading mitigates the agency conflict (e.g., Carlton and Fischel 1983) and those who espouse the intermediate, agnostic position (e.g., Haddock and Macey 1987; Epstein 2004).

[53] The near-universal illegality of insider trading arguably places the burden on opponents of insider trading regulation to show that such regulation is more costly than beneficial, since they seek to change the status quo.

[54] Negative externalities are an especially important consideration in the insider trading debate, which both this article and much of the agency literature on insider trading abstract from. Studies that address some potential negative external effects of insider trading include Baiman and Verrecchia (1996); Beny (2005, 2007); Bhattacharya and Daouk (2002); Bushman et al. (2005); Cox (1986); Du and Wei (2004); Fishman and Hagerty (1992); Georgakopoulos (1993); Goshen and Parchomovsky (2001); Klock (1994); Kraakman (1991); and Shin (1996). Glaeser et al. (2001) address the general issue of public versus private regulation of stock markets.

In conclusion, while the results of this article suggest that the intra-firm impact of insider trading laws may depend on the local context in which such laws are applied (or not applied, as the case may be), they do not support calls for deregulation of insider trading.

REFERENCES

Amiuhud, Y., and H. Mendelson. 1986. Asset pricing and the bid-ask spread. *Journal of Financial Economics* 17 (2): 223-49.

Baiman, S., and R. Verrecchia. 1996. The relation among capital markets, financial disclosure, production efficiency, and insider trading. *Journal of Accounting Research* 34 (1): 1-22.

Bainbridge, S. M. 1998. *Securities law: insider trading*. New York: Foundation Press.

Bebchuk, L., and C. Fershtman. 1990. The effect of insider trading on insiders' reaction to opportunities to "waste" corporate value. John M. Olin discussion paper No. 76, The John M. Olin Center for Law, Economics, and Business. Cambridge, Massachusetts.

—— 1993. The effects of insider trading on insiders' effort in good and bad times. *European Journal of Political Economy* 9 (4): 469-81.

—— 1994. Insider trading and the managerial choice among risky projects. *Journal of Financial and Quantitative Analysis* 29 (1): 1-14.

Bebchuk, L., R. Kraakman, and G. Triantis. 2000. Stock pyramids, cross-ownership, and dual class equity: the creation and agency costs of separating control from cash flow rights. In *Concentrated corporate ownership*, ed. R. K. Morck. Chicago: University of Chicago Press.

Beny, L. 2005. Do insider trading laws matter? Some preliminary comparative evidence. *American Law and Economics Review* 7 (1): 144-83.

—— 2007. Insider trading laws and stock markets. *Journal of Corporation Law* 32 (2): 237-300.

—— 2008. What explains insider trading restrictions? International evidence on the political economy of insider trading regulation. Olin working paper No. 08-001, University of Michigan Law & Economics. Ann Arbor, Michigan.

Beny, L., and A. Anand. 2008. Private regulation of insider trading in the shadow of lax public enforcement (and a strong neighbor): evidence from Canadian firms. Olin working paper No. 07-019, University of Michigan Law & Economics. Ann Arbor, Michigan.

Berle, A., and G. Means. 1932. *The modern corporation and private property*. New York: Macmillan.

Bhattacharya, U., and H. Daouk. 2002. The world price of insider trading. *Journal of Finance* 57 (1): 75-108.

—— 2005. When no law is better than a good law. American Finance Association 2008 New Orleans meetings paper, American Finance Association. Cambridge, Massachusetts.

Bhide, A. 1993. The hidden costs of stock market liquidity. *Journal of Financial Economics* 34 (1): 31-51.

Bris, A. 2005. Do insider trading laws work? *European Financial Management* 11 (3): 267-312.

Burkart, M., D. Gromb, and F. Panunzi. 1998. Why higher takeover premia protect minority shareholders. *Journal of Political Economy* 106 (1): 172-204.

Burkart, M., and F. Panunzi. 2006. Agency conflicts, ownership concentration, and legal shareholder protection. *Journal of Financial Intermediation* 15 (1): 1-31.

Bushman, R., J. Piotroski, and A. Smith. 2005. Insider trading restrictions and analysts' incentives to follow firms. *Journal of Finance* 60 (1): 35-66.

Carlton, D., and D. Fischel. 1983. The regulation of insider trading. *Stanford Law Review* 35 (5): 857-95.

Central Intelligence Agency (CIA). 2000. World Factbook 2000. Central Intelligence Agency. https://www.cia.gov/library/publications/download/download-2000/index.html (last visited May 27, 2008).

Claessens, S., S. Djankov, J. Fan, and L. Lang. 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance* 57 (6): 2741-71.

Cox, J. 1986. Insider trading and contracting: a critical response to the "Chicago School." *Duke Law Journal* 1986 (3): 628-59.

Demsetz, H. 1983. The structure of ownership and the theory of the firm. *Journal of Law and Economics* 26 (2): 375-90.

—— 1986. Corporate control, insider trading, and rates of return. *American Economic Review* 76 (2): 313-16.

Demsetz, H., and K. Lehn. 1985. The structure of corporate ownership: causes and consequences. *Journal of Political Economy* 93 (6): 1155-77.

Demsetz, H., and B. Villalonga. 2001. Ownership structure and corporate performance. *Journal of Corporate Finance* 7 (3): 209-33.

Disclosure, Inc. 1996. *WorldScope global CD-ROM*. Bethesda, Maryland.

Djankov, S., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2006. The law and economics of self-dealing. Working paper, National Bureau of Economic Research. Cambridge, Massachusetts.

Du, J., and S. Wei. 2004. Does insider trading raise market volatility? *The Economic Journal* 114 (498): 916-42.

Durnev, A., and H. Kim. 2005. To steal or not to steal: firm attributes, legal environment, and valuation. *Journal of Finance* 60 (3): 1461-93.

Durnev, A., and A. Nain. 2005. The effectiveness of insider trading regulation around the globe. Working paper, University of Michigan Business School. Ann Arbor, Michigan.

Dyck, A., and L. Zingales. 2004. Private benefits of control: an international comparison. *Journal of Finance* 59 (2): 537-600.

Dye, R. 1984. Inside trading and incentives. *Journal of Business* 57 (3): 295-313.

Easterbrook, F. 1985. Insider trading as an agency problem. In *Principles and agents: the structure of business*, ed. J. Pratt and R. Zeckhauser, 81-99. Cambridge, Massachusetts: Harvard Business School Press.

Eleswarapu, V., and C. Krishnamurti. 1999. Liquidity, stock returns and ownership structure: an empirical study of the Bombay stock exchange. Working paper, Southern Methodist University Business School. Dallas, Texas.

Epstein, R. 2004. *In defence of the corporation.* Wellington, New Zealand: New Zealand Business Roundtable.

Fishman, M., and K. Hagerty. 1992. Insider trading and the efficiency of stock prices. *RAND Journal of Economics* 23 (1): 106-22.

Flores, A., and T. Reynolds. 1989. *Foreign law: current sources of basic legislation in jurisdictions of the world.* Littleton, Colorado: Rothman and Co.

Fried, J. 1997. Towards reducing the profitability of corporate insider trading. *Southern California Law Review* 71 (2): 303-92.

Gaillard, E., ed. 1992. *Insider trading: the laws of Europe, the United States, and Japan.* Boston: Kluwer Law and Taxation Publishers.

Georgakopoulos, N. 1993. Insider trading as a transactional cost: a market microstructure justification and optimization of insider trading regulation. *Connecticut Law Review* 26 (1): 1-51.

Gevurtz, F. 2002. The globalization of insider trading prohibitions. *The Transnational Lawyer* 15 (2): 63-94.

Glaeser, E., S. Johnson, and A. Shleifer. 2001. Coase versus the Coasians. *Quarterly Journal of Economics* 116 (3): 853-99.

Goshen, Z., and G. Parchomovsky. 2001. On insider trading, markets, and "negative" property rights in information. *Virginia Law Review* 87 (7): 1229-77.

Grishchenko, O., L. Litov, and J. Mei. 2002. Measuring private information trading in emerging markets. Working paper, New York University Department of Finance. New York.

Grossman, S., and O. Hart. 1988. One-share, one-vote, and the market for corporate control. *Journal of Financial Economics* 20 (1): 175-202.

Haddock, D., and J. Macey. 1986. Controlling insider trading in Europe and America: the economics of the politics. In *Law and Economics and the Economics of Legal Regulation*, ed. G. von der Schulenburg et al., 149-67. Dordrecht, Netherlands: Kluwer Academic Publishers.

—— 1987. A Coasian model of insider trading. *Northwestern University Law Review* 80 (4): 1449-72.

Haft, R. J. 1982. The effect of insider trading rules on the internal efficiency of the large corporation. *Michigan Law Review* 80 (6): 1051-71.

Harris, M., and A. Raviv. 1988. Corporate governance: voting rights and majority rules. *Journal of Financial Economics* 20 (1): 203-35.

Hung, M., and R. Trezevant. 2004. Insider trading, corporate governance structure, and the incorporation of information into stock price: evidence from Southeast Asia. Working paper, University of Southern California. Los Angeles, California.

Jackson, H., and M. Roe. 2006. Public enforcement of securities laws: preliminary evidence. Working paper, Harvard Law School. Cambridge, Massachusetts.

Jensen, M., and W. Meckling. 1976. Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 3 (4): 305-60.

Karolyi, G. 2004. The role of American depository receipts in the development of emerging equity markets. *The Review of Economics and Statistics* 86 (3): 670-90.

Karolyi, G., and S. Foerster. 1999. The effects of market segmentation and investor recognition on asset prices: evidence from foreign stocks listing in the U.S. *Journal of Finance* 54 (3): 981-1013.

Klock, M. 1994. Mainstream economics and the case for prohibiting insider trading. *Georgia State University Law Review* 10 (2): 297-335.

Kraakman, R. 1991. The legal theory of insider trading regulation in the United States. In *European insider dealing*, ed. K. Hopt and E. Wymeersch, 39-55. London: Butterworths.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 1999. Corporate ownership around the world. *Journal of Finance* 54 (2): 471-517.

—— 2006. What works in securities laws? *Journal of Finance* 61 (1): 1-32.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 1997. Legal determinants of external finance. *Journal of Finance* 52 (3): 1131-50.

—— 1998. Law and finance. *Journal of Political Economy* 106 (6): 1113-53.

—— 2002. Investor protection and corporate valuation. *Journal of Finance* 57 (3): 1147-70.

Leland, H. 1992. Insider trading: should it be prohibited? *Journal of Political Economy* 100 (4): 859-87.

Manne, H. 1966. *Insider Trading and the Stock Market.* New York: The Free Press.

Manove, M. 1989. The harm from insider trading and informed speculation. *Quarterly Journal of Economics* 104 (4): 823-45.

Masson, R., and A. Madhavan. 1991. Insider trading and the value of the firm. *Journal of Industrial Economics* 39 (4): 333-53.

Maug, E. 2002. Insider trading legislation and corporate governance. *European Economic Review* 46 (9): 1569-97.

Maug, E., and A. Ackerman. 2006. Insider trading legislation and acquisition announcements: do laws matter? Working paper, University of Mannheim. Mannheim, Germany.

Morck, R., A. Shleifer, and R. Vishny. 1988. Management ownership and market valuation: an empirical analysis. *Journal of Financial Economics* 20 (1): 293-315.

Morck, R., D. Stangeland, and B. Yeung. 2000. Inherited wealth, corporate control, and economic growth: the Canadian disease? In *Concentrated Corporate Ownership*, ed. R. K. Morck, 319-69. Chicago: University of Chicago Press.

Nenova, T. 2003. The value of corporate voting rights and control: a cross-country analysis. *Journal of Financial Economics* 68 (3): 325-51.

Noe, T. 1997. Insider trading and the problem of corporate agency. *Journal of Law, Economics, and Organization* 13 (2): 287-318.

Pindado, J., and C. de la Torre. 2004. Why is ownership endogenous? *Applied Economics Letters* 11 (14): 901-4.

Roe, M. 2006. Legal origins, politics, and modern stock markets. *Harvard Law Review* 120 (2): 462-527.

Roulstone, D. 2003. The relation between insider-trading restrictions and executive compensation. *Journal of Accounting Research* 41 (3): 525-51.

S.E.C. v. Texas Gulf Sulphur Co., 401 F.2d 833 (2d Cir. 1968).

Seyhun, H. N. 1986. Insiders' profits, costs of trading, and market efficiency. *Journal of Financial Economics* 16 (2): 189-212.

Shin, J. 1996. The optimal regulation of insider trading. *Journal of Financial Intermediation* 5 (1): 49-73.

Shleifer, A., and R. Vishny. 1986. Large shareholders and corporate control. *Journal of Political Economy* 94 (3): 461-88.

—— 1997. A survey of corporate governance. *Journal of Finance* 52 (2): 737-83.

Stamp, M., and C. Welsh, eds. 1996. *International insider dealing*. London: Sweet & Maxwell.

Thompson Financial. 2007. *Thompson Datastream*. New York.

World Bank. 2003. *World development report CD-ROM*. Washington, D.C.

World Economic Forum, ed. 1996. *Global Competitiveness Report 1996*. Geneva, Switzerland: World Economic Forum.

Summary of Testable Hypotheses		
Hypothesis	*Dependent Variable*	*Hypothesized Relationship to Corporate Value*
H1	Insider Trading Law	Positive
H2	Cash Flow Ownership of the Controlling Shareholder	Positive
H3	Insider Trading Law*Cash Flow Ownership of the Controlling Shareholder	Negative

Table 1

Description of Variables	
Dependent Variables	
Tobin's Q	Tobin's Q is defined as the market value of assets divided by their replacement value at the close of the most recent fiscal year. The market value of assets is measured by the book value of assets minus the book value equity minus deferred taxes plus the market value of common stock. The replacement value of assets is approximated by the book value of assets (La Porta et al. 2002).
Industry-Adjusted Tobin's Q	The industry-adjusted Tobin's Q for a given firm is defined as the difference between that firm's Tobin's Q and the *world median* Tobin's Q among firms in the same industry. Industry reference groups are defined at the three-digit S.I.C. level if there are at least five WorldScope firms (not including the sample firms) in the group and, if not, at the two-digit S.I.C. level (La Porta et al. 2002).
Cash Flow to Price Ratio	The cash flow to price ratio is computed as the sum of earnings (net income before extraordinary items) and depreciation. When cash flow is negative, the cash flow to price ratio is assigned a missing value. The average cash flow to price ratio for the three most recent fiscal years is reported in U.S. dollars. Price, in U.S. dollars, is the market value of common equity at the end of the most recent fiscal year (La Porta et al. 2002).
Industry-Adjusted Cash Flow to Price Ratio	The industry-adjusted cash flow to price ratio is defined as the difference between the firm's cash flow to price ratio and the *world median* cash flow to price ratio among firms in the same industry. Industry control groups are defined in the same manner as for industry-adjusted Tobin's Q (see above) (La Porta et al. 2002).
Insider Trading Law Variables	
Tipping	Tipping equals 1 if corporate insiders are prohibited from tipping outsiders (tippees) about material nonpublic information and/or encouraging them to trade on such information for personal gain; equals 0 otherwise (Gaillard 1992; Stamp and Welsh 1996).
Tippee	Tippee equals 1 if tippees, like corporate insiders, are prohibited from trading on material nonpublic information that they have received from corporate insiders; equals 0 otherwise (Gaillard 1992; Stamp and Welsh 1996).
Damages	Damages equals 1 if potential monetary penalties for violating insider trading laws are proportional to insiders' trading profits; equals 0 otherwise (Gaillard 1992; Stamp and Welsh 1996).
Criminal	Criminal equals 1 if violation of insider trading laws is a potential criminal offense; equals 0 otherwise (Gaillard 1992; Stamp and Welsh 1996).
Private	Private equals 1 if private parties have a private right of action against parties who have violated the country's insider trading laws (Gaillard 1992; Stamp and Welsh 1996).
ITL	The aggregate insider trading law index, ITL, equals the sum of (1) Tipping; (2) Tippee; (3) Damages; (4) Criminal; and (5) Private. Equivalently, the sum of Scope, Sanction and Private. IT Law ranges from 0 to 5, with 0 representing the most lax formal insider trading law and 5 representing the most restrictive insider trading law (Gaillard 1992; Stamp and Welsh 1996).
Enforced	A proxy for actual enforcement, Enforced by 1994 is an indicator variable that equals 1 if the country's insider trading law has been enforced for the first time by the end of 1994 (Bhattacharya and Daouk 2002).
*ITL*Enforced*	IT Law times Enforced by 1994.
Ownership and Control Variables	
Control Rights	"The fraction of the firm's voting rights, if any, owned by its controlling shareholder. To measure control we combine a shareholder's *direct* (i.e., through shares registered in her name) and *indirect* (i.e., through shares held by entities that, in turn, she controls) *voting* rights in the firm. A shareholder has an *x% indirect control* over firm A if: (1) she controls directly firm B which, in turn, directly controls *x%* of the votes in firm A; or (2) she controls directly firm C which in turn controls firm B (or a sequence of firms leading to firm B each of which has control over the next one, i.e., they form a control chain) which, in turn, directly controls *x%* of the votes in firm A. A group of *n* companies form a *chain of control* if each firm 1 through *n* - 1 controls the consecutive firm. A firm in our sample has a controlling shareholder if the sum of her direct and indirect voting rights exceeds 10%. When two or more shareholders meet our criteria for control, we assign control to the shareholder with the largest (direct plus indirect) voting stake" (La Porta et al. 2002, 1157).
Cash Flow Rights	"Ultimate cash flow right of the controlling shareholder in the sample firm. CF Rights are computed as the product of all the equity stakes along the control chain (see description of Control Rights for an explanation of 'control chains')" (La Porta et al. 2002, 1157).
Country-Adjusted Cash Flow Rights	Calculated by taking the difference between the cash flow ownership of the controlling owner of a given firm and the countrywide mean cash flow ownership of controlling shareholders (La Porta et al. 2002).

Table 2 (page 1 of 3)

Description of Variables	
Additional Variables	
Sales Growth	Sales growth is computed by the geometric average annual percentage growth in lagged net sales for up to three years conditional on availability of the data. Sales are reported in U.S. dollars (La Porta et al. 2002).
Industry-Adjusted Sales Growth	Industry-adjusted sales growth is defined as the difference between the firm's sales growth (SG) and the *world median* SG among firms in the same industry. Industry control groups are defined in the same manner as for industry-adjusted Tobin's Q (see above) (La Porta et al. 2002).
Common Law	A dummy variable that equals 1 if the legal origin of the country is English common law and 0 otherwise (La Porta et al. 1998; CIA 2000).
Industry	Industry reference groups are defined at the three-digit S.I.C. level if there are at least five World-Scope firms (not including the sample firms) in the group and, if not, at the two-digit S.I.C. level (La Porta et al. 2002).
Rule of Law	The rule of law measure is an "[a]ssessment of the law and order tradition in the country. Average of the months of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for less tradition for law and order" (La Porta et al. 1998, 1124). La Porta et al. (1998) compile this variable from the *International Country Risk Guide*. A higher rule of law score signifies that the legal system is relatively more capable of resolving disputes and enforcing contracts.
Judicial Efficiency	The index of judicial efficiency is an "[a]ssessment of the 'efficiency and integrity of the legal environment as it affects business, particularly foreign firms,'" averaged from 1980-1983 (La Porta et al. 1998, 1124). La Porta et al. (1998) get this variable from *Business International Corporation*.
Stock Market Liquidity	Stock market liquidity is measured as stock market value traded divided by GDP (World Bank 1995).
Firm Liquidity	Individual firm liquidity is measured as the average monthly turnover ratio, i.e., the total value traded divided by total market capitalization, from January 1, 1994 to December 1, 1996. (Thompson Financial 2007).
Disclosure Index	The Disclosure index equals the arithmetic average of five separate indices of information that firms are legally required to include in their prospectuses: (1) Compensation; (2) Shareholders; (3) Inside Ownership; (4) Irregular contracts; (5) Transactions. (1) Compensation is "[a]n index of prospectus disclosure requirements regarding the compensation of the *Issuer's* directors and key officers. Equals 1 if the law or the listing rules require that the compensation of *each* director and key officer be reported in the prospectus of a newly-listed firm; equals .5 if only the *aggregate* compensation of directors and key officers must be reported in the prospectus of a newly listed firm; and equals 0 when there is no requirement to disclose the compensation of directors and key officers in the prospectus for a newly listed firm" (La Porta et al. 2006, 6). The *Issuer* is a domestic corporation that raises capital through an initial public offering of common shares. (Id.) (2) Shareholders is "[a]n index of disclosure requirements regarding the *Issuer's* equity ownership structure. Equals 1 if the law or the listing rules require disclosing the name and ownership stake of each shareholder who, directly or indirectly, controls 10% or more of the *Issuer's* voting securities; equals .5 if reporting requirements for the *Issuer's* 10% shareholders do not include indirect ownership or if only their aggregate ownership needs to be disclosed; and equals 0 when the law does not require disclosing the name and ownership stake of the *Issuer's* 10% shareholders. [No distinction is drawn between] large shareholder reporting requirements imposed on firms with those imposed on large shareholders themselves" (La Porta et al. 2006, 6). (3) Inside Ownership is "[a]n index of prospectus disclosure requirements regarding the equity ownership of the *Issuer's* shares by its directors and key officers. Equals 1 if the law or the listing rules require that the ownership of the *Issuer's* shares by *each* of its directors and key officers be disclosed in the prospectus; equals .5 if only the *aggregate* number of the *Issuer's* shares owned by its directors and key officers must be disclosed in the prospectus; and equals 0 when the ownership of *Issuer's* shares by its directors and key officers need not be disclosed in the prospectus" (La Porta et al. 2006, 6). (4) Irregular contracts is "[a]n index of prospectus disclosure requirements regarding the *Issuer's* contracts outside the ordinary course of business. Equals 1 if the law or the listing rules require that the terms of material contracts made by the *Issuer* outside the ordinary course of its business be disclosed in the prospectus; equals .5 if the terms of only *some* material contracts made outside the ordinary course of business must be disclosed; and equals 0 otherwise" (La Porta et al. 2006, 6). (5) Transactions is "[a]n index of the prospectus disclosure requirements regarding transaction between the *Issuer* and its directors, officers, and/or large shareholders (i.e., 'related parties'). Equals 1 if the law or the listing rules require that *all* transactions in which related parties have, or will have, an interest be disclosed in the prospectus; equals .5 if *only some* transactions between the *Issuer* and related parties must be disclosed in the prospectus; and equals 0 if transactions between the *Issuer* and related parties need not be disclosed in the prospectus" (La Porta et al. 2006, 6).

Table 2 (page 2 of 3)

Description of Variables	
Additional Variables	
Accounting Standards Index	The accounting index is a measure of the quality of accounting standards. The accounting index assigns a rating to companies' 1990 annual reports on the basis of their inclusion or exclusion of ninety items. The ninety items are divided into seven categories (general information, income statements, balance sheets, funds flow statement, accounting standards, stock data, and special items). For each country, the index is based on examination of a minimum of three companies. The companies represent a cross-section of various industries. 70% are industrial companies, while the remaining 30% are financial companies (La Porta et al. 1998).
Perception of Insider Trading	The perception of insider trading is based on a survey that asks corporate executives many questions, including whether insider trading is common in their domestic stock markets. The variable ranges from 1 to 6, with 1 indicating that corporate executives strongly agree, and 6 indicating that corporate executives strongly disagree, that insider trading is common in their domestic stock markets (World Economic Forum 1996).
Control Wedge	The control wedge is the difference between the controlling shareholder's control rights and cash flow rights (La Porta et al. 2002).
Original Anti-Director Rights Index	The original anti-director rights index is "[f]ormed by adding 1 when: (1) the country allows shareholders to mail the proxy vote to the firm; (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders meeting is less than or equal to 10% (the sample median); or (6) shareholders have preemptive rights that can be waived only by a shareholders' vote. The index ranges from 1 to 6" (La Porta et al. 1998, 1123).
Revised Anti-Director Rights Index	The revised anti-director rights index "relies on the same basic dimensions of corporate law [as the original anti-director rights index] but defines them with more precision. . . . The general principle behind the construction of the revised anti-director rights index is to associate better investor protection with laws that explicitly mandate, or set as a default rule, provisions that are favorable to minority shareholders" (Djankov et al. 2006, 30).
Anti-Self-Dealing Index	The average of the ex-ante and ex-post indices of the private control of self-dealing transactions. The index of ex-ante control of self-dealing transactions is the "[a]verage of approval by disinterested shareholders and ex-ante disclosure" (Djankov et al. 2006, 47). The index of ex-post control of self-dealing transactions is the "[a]verage of disclosure in periodic filings and ease of proving wrongdoing" (Djankov et al. 2006, 48).
Measures of the Market for Corporate Control	The three measures of the market for corporate control include: (1) the average percent of acquisitions that were successful between January 1, 1990 and December 31, 1999; (2) the average per capita market value of acquisitions in constant U.S. dollars between January 1, 1990 and December 31, 1999 divided by GDP in 1995 U.S. dollars; and (3) the average percent of acquisitions that were hostile between January 1, 1990 and December 31, 1999. The corporate control data come from Bris (2005), whose "total sample includes all takeover announcements that took place between January 1, 1990 and December 31, 1999, available in the Securities Data Corporate Mergers and Acquisitions database. Only public companies are considered, and [he] exclude[s] LBO deals, spinoffs, recapitalizations, self-tender and exchange offers, repurchases, minority stake purchases, acquisitions of remaining interest, and privatizations. Second and subsequent bids that occur within a window of four years relative to an initial announcement are excluded. A bid is considered Hostile when the board officially rejects the offer but the acquiror persists with the takeover, or if the offer is a surprise to the target's board and the [board] has not yet given a recommendation. A deal is successful when it has been either totally or partially completed" (Bris 2005, Table 1, 272). The GDP data come from the World Bank World Development Report CD-ROM (2003).
Block Premium	The block premium is "the difference between the price per share paid for the control block and the price on the Exchange two days after the announcement of the control transaction, divided by the price on the Exchange after the announcement and multiplied by the proportion of cash flow rights represented in the controlling block" (Dyck and Zingales 2004, 547). Dyck and Zingales (2004) estimate control block premia for 39 countries using 393 controlling block sales between 1990 and 2000.
Controlling Shareholder's Identity	This variable is a dummy variable that represents the controlling shareholder's identity: family, corporation, financial institution, the state, a foreign state, or other (La Porta et al. 2002).

Table 2 (page 3 of 3)

The table reports means and medians of key variables by insider trading regime. Countries with a value of ITL*Enforced *that is greater than the median of two are classified as High* ITL *regimes, while those with a value of* ITL*Enforced *that is less than or equal to two are classified as Low* ITL *regimes.* N *is the total number of firms observed for each country;* ITL *is the index of insider trading law;* Enforced *equals 1 if the country's insider trading law was enforced at least once before 1994, and 0 otherwise;* Tobin's Q *is* Tobin's Q *from La Porta et al. (2002);* Cash Flow Ownership *is the fraction of common equity owned by the controlling shareholder from La Porta et al. (2002); and* Sales Growth *is the growth of sales, expressed in percentage terms, from La Porta et al. (2002).*
All variables are described in detail in Table 2.

Means and Medians by Insider Trading Regime							
	N	*ITL*	*Enforced*	*ITL* Enforced*	*Tobin's Q*	*Cash Flow Ownership*	*Sales Growth*
All Countries	537						
Mean		3.22	0.55	1.84	1.56	0.29	0.15
Median		3.00	1.00	2.00	1.30	0.24	0.12
Low *ITL* Regimes							
Australia	20						
Mean		4.00	0.00	0.00	1.41	0.25	0.15
Median		4.00	0.00	0.00	1.37	0.28	0.15
Austria	20						
Mean		2.00	0.00	0.00	1.17	0.47	0.13
Median		2.00	0.00	0.00	1.12	0.51	0.09
Denmark	20						
Mean		3.00	0.00	0.00	1.92	0.30	0.16
Median		3.00	0.00	0.00	1.50	0.27	0.11
Germany	20						
Mean		3.00	0.00	0.00	1.41	0.30	0.12
Median		3.00	0.00	0.00	1.19	0.27	0.07
Greece	20						
Mean		2.00	0.00	0.00	1.98	0.48	0.25
Median		2.00	0.00	0.00	1.67	0.53	0.22
Ireland	20						
Mean		4.00	0.00	0.00	1.31	0.29	0.15
Median		4.00	0.00	0.00	1.29	0.18	0.13
Italy	20						
Mean		3.00	0.00	0.00	1.10	0.35	0.13
Median		3.00	0.00	0.00	1.03	0.30	0.07

Means and Medians by Insider Trading Regime							
	N	*ITL*	*Enforced*	*ITL* Enforced*	*Tobin's Q*	*Cash Flow Ownership*	*Sales Growth*
Japan	20						
Mean		2.00	1.00	2.00	1.66	0.25	0.02
Median		2.00	1.00	2.00	1.33	0.16	0.01
Mexico	20						
Mean		1.00	0.00	0.00	1.65	0.36	0.09
Median		1.00	0.00	0.00	1.64	0.34	-0.04
New Zealand	20						
Mean		4.00	0.00	0.00	1.53	0.24	0.17
Median		4.00	0.00	0.00	1.33	0.23	0.17
Norway	20						
Mean		1.00	1.00	1.00	1.36	0.27	0.16
Median		1.00	1.00	1.00	1.14	0.23	0.14
Portugal	20						
Mean		4.00	0.00	0.00	1.20	0.46	0.24
Median		4.00	0.00	0.00	1.09	0.51	0.20
Spain	20						
Mean		4.00	0.00	0.00	1.18	0.26	0.09
Median		4.00	0.00	0.00	1.16	0.21	0.05
Switzerland	20						
Mean		3.00	0.00	0.00	1.71	0.34	0.15
Median		3.00	0.00	0.00	1.34	0.35	0.11
Low *ITL* Overall	280						
Mean		2.86	0.14	0.21	1.47	0.33	0.14
Median		3.00	0.00	0.00	1.27	0.29	0.10
High *ITL* Regimes							
Argentina	19						
Mean		3.00	1.00	3.00	1.25	0.39	0.15
Median		3.00	1.00	3.00	1.15	0.39	0.13
Belgium	20						
Mean		3.00	1.00	3.00	1.33	0.29	0.14
Median		3.00	1.00	3.00	1.22	0.29	0.09
Canada	20						
Mean		5.00	1.00	5.00	1.97	0.25	0.18
Median		5.00	1.00	5.00	1.75	0.16	0.17
Finland	20						
Mean		3.00	1.00	3.00	1.17	0.30	0.16
Median		3.00	1.00	3.00	1.10	0.23	0.15

Means and Medians by Insider Trading Regime							
	N	*ITL*	*Enforced*	*ITL* Enforced*	*Tobin's Q*	*Cash Flow Ownership*	*Sales Growth*
France	20						
Mean		4.00	1.00	4.00	1.38	0.02	0.10
Median		4.00	1.00	4.00	1.27	0.18	0.08
Hong Kong	20						
Mean		3.00	1.00	3.00	1.49	0.32	0.16
Median		3.00	1.00	3.00	1.16	0.27	0.11
Israel	19						
Mean		3.00	1.00	3.00	1.27	0.24	0.16
Median		3.00	1.00	3.00	1.17	0.19	0.13
Netherlands	20						
Mean		3.00	1.00	3.00	2.06	0.33	0.18
Median		3.00	1.00	3.00	1.74	0.26	0.13
Singapore	20						
Mean		4.00	1.00	4.00	1.76	0.31	0.23
Median		4.00	1.00	4.00	1.55	0.29	0.26
South Korea	19						
Mean		5.00	1.00	5.00	1.14	0.18	0.19
Median		5.00	1.00	5.00	1.07	0.17	0.21
Sweden	20						
Mean		3.00	1.00	3.00	1.45	0.12	0.18
Median		3.00	1.00	3.00	1.21	0.07	0.16
United Kingdom	20						
Mean		3.00	1.00	3.00	2.15	0.14	0.12
Median		3.00	1.00	3.00	1.72	0.12	0.10
United States	20						
Mean		5.00	1.00	5.00	2.98	0.20	0.12
Median		5.00	1.00	5.00	3.08	0.17	0.10
High *ITL* Overall	257						
Mean		3.61	1.00	3.61	1.65	0.26	0.16
Median		3.00	1.00	3.00	1.31	0.19	0.13
Difference of Means Low *ITL* vs. High *ITL* (t-statistic)		-0.76[a]	-0.86[a]	-3.40[a]	-0.18[a]	0.07[a]	-0.02[c]
Difference of Medians Low *ITL* vs. High *ITL* (Chi^2 statistic)		0.34	—	533.00[a]	0.82	18.30[a]	6.05[a]

[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3 (page 3 of 3)

The table reports means and medians of key variables by legal origin, common law or civil law. N *is the total number of firms observed for each legal origin;* ITL *is the index of insider trading law;* Enforced *equals 1 if the country's insider trading law was enforced at least once before 1994, and 0 otherwise;* Tobin's Q *is* Tobin's Q *from La Porta et al. (2002);* Cash Flow Ownership *is the fraction of common equity owned by the controlling shareholder from La Porta et al. (2002); and* Sales Growth *is the growth of sales, expressed in percentage terms, from La Porta et al. (2002). All variables are described in detail in Table 2.*

Means by Legal Origin							
	N	*ITL*	*Enforced*	*ITL* Enforced*	*Tobin's Q*	*Cash Flow Ownership*	*Sales Growth*
Common Law	179	2.88	0.50	1.49	1.45	0.25	0.14
Civil Law	358	1.77	0.25	2.55	1.77	0.32	0.16
Difference of Means Civil Law vs. Common Law (t-statistic)		-1.01[a]	-0.17[a]	-1.07[a]	1.56[a]	0.07[a]	-0.02
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.							

Table 4

This table presents pairwise correlation coefficients for Tobin's Q, *the insider trading law and enforcement measures (*ITL, Enforced, *and* ITL*Enforced), Cash Flow Ownership *and* Sales Growth. *All variables are described in detail in Table 2. The numbers in parentheses are the probability levels (p-values) at which the null hypothesis of zero correlation can be rejected in two-tailed tests.*

Correlation Matrix						
	ITL	*Enforced*	*ITL* Enforced*	*Tobin's Q*	*Cash Flow Ownership*	*Sales Growth*
ITL	1.00					
Enforced	0.12[a] *(0.01)*	1.00				
*ITL*Enforced*	0.45[a] *(0.00)*	0.90[a] *(0.00)*	1.00			
Tobin's Q	0.09[b] *(0.05)*	0.11[a] *(0.01)*	0.17[a] *(0.00)*	1.00		
Cash Flow Ownership	-0.15[a] *(0.00)*	-0.19[a] *(0.00)*	-0.20[a] *(0.00)*	0.04 *(0.38)*	1.00	
Sales Growth	0.12[a] *(0.01)*	0.02 *(0.68)*	0.05 *(0.28)*	0.23[a] *(0.00)*	0.06 *(0.18)*	1.00
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.						

Table 5

*The table presents random effects regressions for the dependent variable, Log(1+*Tobin's Q*), where* Tobin's Q *is adjusted by industry, as described in Table 2. Standard errors are reported in parentheses. All variables are described in detail in Table 2.*

Random Effects Regressions				
PANEL A Dependent Variable: Log(1+*Tobin's Q*)				
Independent Variable	*(1)*	*(2)*	*(3)*	*(4)*
Sales Growth	0.69[a] *(0.13)*	0.69[a] *(0.14)*	0.68[a] *(0.14)*	0.68[a] *(0.14)*
H1: *ITL*	0.01 *(0.04)*			0.00 *(0.05)*
H2: *Cash Flow Ownership*		0.15[c] *(0.09)*		0.04 *(0.31)*
H3: *Cash Flow Ownership*ITL*			0.05[c] *(0.03)*	0.04 *(0.09)*
Constant	-0.02 *(0.15)*	-0.04 *(0.06)*	-0.04 *(0.05)*	-0.05 *(0.18)*
Number of Observations	538	538	538	538
χ^2	25.39	28.46	28.69	28.70
Prob > χ^2	0.00[a]	0.00[a]	0.00[a]	0.00[a]
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.				
PANEL B Dependent Variable: Log(1+*Tobin's Q*)				
Independent Variable	*(1)*	*(2)*	*(3)*	*(4)*
Sales Growth	0.68[a] *(0.14)*	0.68[a] *(0.13)*	0.68[a] *(0.14)*	0.68[a] *(0.14)*
H1: *ITL*Enforced*	0.03 *(0.02)*			0.03 *(0.03)*
H2: *Cash Flow Ownership*		0.15[c] *(0.09)*		0.12 *(0.13)*
H3: *Cash Flow Ownership*ITL *Enforced*			0.06[b] *(0.03)*	0.02 *(0.05)*
Constant	-0.05 *(0.06)*	-0.04 *(0.06)*	-0.03 *(0.05)*	-0.09 *(0.08)*
Number of Observations	537	537	537	537
χ^2	26.85	28.34	29.28	30.59
Prob > χ^2	0.00[a]	0.00[a]	0.00[a]	0.00[a]
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.				

Table 6

*The table presents random effects regressions for the dependent variable, Log(1+*Tobin's Q*), where* Tobin's Q *is adjusted by industry, as described in Table 2.* C_ITL *is mean-centered* ITL*, i.e., the difference between the country's* ITL *and the world mean of* ITL*. All variables are described in detail in Table 2.*

Random Effects Regressions (Heterogeneity)				
Dependent Variable: Log(1+*Tobin's Q*)				
Independent Variable	*(1)*	*(2)*	*(3)*	*(4)*
(1) *Sales Growth*	0.69[a] *(0.13)*	0.70[a] *(0.13)*	0.69[a] *(0.14)*	0.69[a] *(0.14)*
(2) *C_ITL*	-0.09 *(0.06)*	-0.09[c] *(0.06)*		
(3) *C_ITL*Enforced*			-0.07 *(0.07)*	-0.08 *(0.07)*
(4) *C_ITL*Common Law*	0.28[a] *(0.11)*	0.22[c] *(0.12)*		
(5) *C_ITL*Enforced*Common Law*			0.30[a] *(0.11)*	0.27[b] *(0.11)*
(6) *Cash Flow Ownership*	0.17 *(0.11)*	0.20[c] *(0.11)*	0.17[c] *(0.10)*	0.21[b] *(0.10)*
(7) *Cash Flow Ownership *Common Law*	-0.27 *(0.21)*	-0.41[c] *(0.25)*	-0.15 *(0.18)*	-0.28 *(0.21)*
(8) *Cash Flow Ownership*C_ITL*	0.02 *(0.12)*	0.03 *(0.12)*		
(9) *Cash Flow Ownership*C_ITL *Common Law*	0.28 *(0.25)*	0.35 *(0.26)*		
(10) *Cash Flow Ownership *Enforced*C_ITL*			0.04 *(0.05)*	0.04 *(0.05)*
(11) *Cash Flow Ownership *Enforced*C_ITL*Common Law*			0.02 *(0.07)*	0.02 *(0.07)*
(12) *Common Law*		0.13 *(0.12)*		0.12 *(0.10)*
(13) *Constant*	-0.10[c] *(0.05)*	-0.13[b] *(0.06)*	-0.08 *(0.05)*	-0.12[b] *(0.06)*
Number of Observations	537	537	537	537
χ^2	41.03	42.19	42.42	43.74
Prob > χ^2	0.00[a]	0.00[a]	0.00[a]	0.00[a]
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.				

Table 7

*The table presents random effects regressions for the dependent variable, Log(1+*Tobin's Q*), where* Tobin's Q *is adjusted by industry, as described in Table 2.* C_ITL *is mean-centered* ITL, *i.e., the difference between the country's* ITL *and the world mean of* ITL. Industry-Adjusted Sales Growth *is the difference between the firm's sales growth and the world median sales growth among firms in the same industry.* Country-Adjusted Cash Flow Ownership *is the difference between the controlling shareholder's cash flow ownership and mean cash flow ownership for all firms in the country. Standard errors are reported in parentheses. All variables are described in detail in Table 2.*

Random Effects Regressions (Robustness)				
Dependent Variable: Log(1+*Tobin's Q*)				
Independent Variable	*(1)*	*(2)*	*(3)*	*(4)*
(1) *Industry-Adjusted Sales Growth*	0.84[a] *(0.14)*	0.84[a] *(0.14)*	0.83[a] *(0.14)*	0.83[a] *(0.14)*
(2) *C_ITL*	-0.09[b] *(0.04)*	-0.09[b] *(0.04)*		
(3) *C_ITL*Enforced*			-0.06 *(0.06)*	-0.06 *(0.06)*
(4) *C_ITL*Common Law*	0.22[a] *(0.09)*	0.19[b] *(0.10)*		
(5) *C_ITL*Enforced*Common Law*			0.23[b] *(0.10)*	0.21[b] *(0.11)*
(6) *Country-Adjusted Cash Flow Ownership*	0.22[b] *(0.11)*	0.22[b] *(0.11)*	0.22[b] *(0.11)*	0.22[b] *(0.11)*
(7) *Country-Adjusted Cash Flow Ownership *Common Law*	-0.37 *(0.25)*	-0.38 *(0.25)*	-0.29 *(0.20)*	-0.30 *(0.20)*
(8) *Country-Adjusted Cash Flow Ownership*C_ITL*	0.06 *(0.12)*	0.06 *(0.12)*		
(9) *Country-Adjusted Cash Flow Ownership*C_ITL *Common Law*	0.19 *(0.26)*	0.20 *(0.26)*		
(10) *Country-Adjusted Cash Flow Ownership *Enforced*C_ITL*			0.18 *(0.18)*	0.19 *(0.18)*
(11) *Country-Adjusted Cash Flow Ownership *Enforced*C_ITL*Common Law*			0.08 *(0.28)*	0.08 *(0.28)*
(12) *Common Law*		0.06 *(0.09)*		0.05 *(0.08)*
(13) *Industry Dummies*	Yes	Yes	Yes	Yes
(14) *Constant*	0.00 *(0.07)*	-0.01 *(0.07)*	0.03 *(0.06)*	0.01 *(0.07)*
Number of Observations	520	520	520	520
χ^2	53.28	53.71	53.12	53.43
Prob > χ^2	0.00[a]	0.00[a]	0.00[a]	0.00[a]
[a,b,c] The superscripts a, b, and c denote statistical significance at the 1%, 5%, and 10% levels, respectively.				

Table 8

INSIDER TRADING, CHINESE WALLS, AND BROKERAGE COMMISSIONS: THE ORIGINS OF MODERN REGULATION OF INFORMATION FLOWS IN SECURITIES MARKETS

Stanislav Dolgopolov[*]

ABSTRACT

This article examines the emergence of modern regulation of information flows in securities markets in the form of restrictions on insider trading and Chinese Walls within financial intermediaries during the 1960s and early 1970s. It is argued that these regulatory developments can be traced to the demise of the fixed brokerage commissions regime on the New York Stock Exchange and other national securities exchanges and the corresponding use of inside information by brokers as a means of competing for brokerage revenues. In fact, the overall enforcement program of the SEC, which led to insider trading regulation and the creation of Chinese Walls, was strongly influenced by the existence of the fixed brokerage commissions regime and the related concern about the representation of financial institutions on corporate boards. This article also examines the evolution of the fixed brokerage commissions regimes in the United Kingdom and Japan and argues that such price controls strongly influenced insider trading practices and the emergence of the regulation of information flows in these countries.

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INTRODUCTION

The regulation of insider trading[1] and the existence of Chinese Walls within financial intermediaries[2] are among the most important regulatory developments for securities markets since the emergence of the system of mandatory disclosure during the New Deal era. Yet, there is no clear answer as to why these interrelated developments[3] materialized in the United States during the 1960s and early 1970s without any congressional action to amend the federal securities statutes or even in the absence of general rulemaking by the regulatory agency responsible for securities markets, the United States Securities and Exchange Commission ("SEC" or "Commission").[4] The historic and economic context of *Cady, Roberts*[5] and *Merrill*

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[1] "Insider trading" generally refers to transactions in a company's securities by corporate insiders or their associates based on information originating within the firm that would, once publicly disclosed, affect the prices of such securities, although the border between "inside" and "outside" information is blurred from both the economic and regulatory perspectives. *See generally* Stanislav Dolgopolov, *Insider Trading*, *in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS 276 (David R. Henderson ed., 2d ed. 2007). For a selective mix of sources examining different aspects of the insider trading controversy, see HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET (1966); WILLIAM K. S. WANG & MARC I. STEINBERG, INSIDER TRADING (2d ed. 2005); Utpal Bhattacharya & Hazem Daouk, *The World Price of Insider Trading*, 57 J. FIN. 75 (2002); Arturo Bris, *Do Insider Trading Laws Work?*, 11 EUR. FIN. MGMT. 267 (2005); Dennis W. Carlton & Daniel R. Fischel, *The Regulation of Insider Trading*, 35 STAN. L. REV. 857 (1983).

[2] A "Chinese Wall" is defined as "a self-enforced informational barrier consisting of systematic, as opposed to *ad hoc*, procedural and structural arrangements . . . designed to stem the flow of knowledge (in particular, unpublished price sensitive information) between different divisions within a multicapacity financial intermediary with conflicting interests and obligations." HARRY MCVEA, FINANCIAL CONGLOMERATES AND THE CHINESE WALL: REGULATING CONFLICTS OF INTEREST 123 (1993). For other representative works on Chinese Walls, see RALPH C. FERRARA ET AL., FERRARA ON INSIDER TRADING AND THE WALL chs. 9-10 (2d ed. 2001 & Supp. 2007); Martin Lipton & Robert Mazur, *The Chinese Wall Solution to the Conflict Problems of Securities Firms*, 50 N.Y.U. L. REV. 459 (1975); Norman S. Poser, *Chinese Wall or Emperor's New Clothes? Regulating Conflicts of Interest of Securities Firms in the U.S and the U.K.*, 9 MICH. Y.B. INT'L LEGAL STUD. 91 (1988).

[3] *See* Poser, *supra* note 2, at 103 ("[T]he concept of the Chinese Wall was created as a preventive measure to control the specific problem of misuse of inside information by multi-service securities firms.").

[4] On the other hand, the federal government had expressed concerns about insider trading practices as early as 1900, when a high-level study group observed that "the officers and directors of large combinations [sometimes] have taken advantage of their inside knowledge of business to speculate on the stock exchange in their own securities to the great detriment of the other shareholders." U.S. INDUS. COMM'N, PRELIMINARY REPORT ON TRUSTS AND INDUSTRIAL COMBINATIONS 34 (1900).

[5] Cady, Roberts & Co., 40 S.E.C. 907 (1961). For sources discussing this decision, see MANNE, *supra* note 1, at 37-39; F. Arnold Daum & Howard W. Phillips, *The Implications of* Cady, Roberts, 17 BUS. LAW. 939 (1962); Donald C. Langevoort, *Rereading* Cady, Roberts*: The Ideology and Practice of Insider Trading Regulation*, 99 COLUM. L. REV. 1319 (1999); Jack M. Whitney II, *Section 10b-5: From* Cady, Roberts *to* Texas Gulf*: Matters of Disclosure*, 21 BUS. LAW. 193, 198-200 (1965).

Lynch,[6] the SEC's seminal decisions that gave rise to the complex framework of insider trading regulation and internal information barriers within financial intermediaries, respectively, is not well understood. Rule 10b-5,[7] which emerged as the principal legal weapon against insider trading during that time period,[8] was initially designed by the regulatory agency to reach clear fraud, such as spreading false information in order to make favorable trades, rather than transacting on superior information in impersonal securities markets or transmitting such information within financial intermediaries to secure gains for themselves or their clients.[9]

The same time period, the 1960s and early 1970s, marked the demise of the fixed brokerage commissions regime that required minimum brokerage charges for transactions in equities on national securities exchanges, most importantly, the New York Stock Exchange ("NYSE" or "Exchange").[10] The rise of professional institutional investors and their even-

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[6] Merrill Lynch, Pierce, Fenner & Smith, Inc., 43 S.E.C. 933 (1968). For sources discussing this decision, see FERRARA ET AL., *supra* note 2, § 9.02[1]; Harvey L. Pitt & Karl A. Groskaufmanis, *Minimizing Corporate Civil and Criminal Liability: A Second Look at Corporate Codes of Conduct*, 78 GEO. L.J. 1559, 1618 (1990); Poser, *supra* note 2, at 105-06, 127.

[7] Exchange Act Release No. 3230, 1942 SEC LEXIS 485 (May 21, 1942) (adopting then-named Rule X-10B-5).

[8] *See* FERRARA ET AL., *supra* note 2, § 1.02[1][b] (stating that "[p]resent-day liability for insider trading stems primarily from Section 10(b) of the Exchange Act and SEC Rule 10b-5 thereunder") (footnotes omitted). Before Rule 10b-5 became the main means of pursuing insider trading, its place was occupied by Section 16(b) of the Securities Exchange Act of 1934, Pub. L. No. 73-291, 48 Stat. 881, 896, which only prescribed disgorging profits of directors, officers, and major shareholders from "short-swing" transactions made within six months in equity securities listed on national securities exchanges. Section 16(b) had a limited scope, and its passage could be explained not just by the concern for the use of inside information but also by the goal of eliminating short-term speculative trading by corporate insiders and hence their incentive to manipulate the stock price. *See* Steve Thel, *The Genius of Section 16: Regulating the Management of Publicly Held Companies*, 42 HASTINGS L.J. 391 (1991). Yet, Section 16(b) had not been entirely forgotten and toothless, being described by a contemporary commentator as "a constant source of litigation [and] a never-ending series of difficult questions." Arthur H. Dean, *Twenty-Five Years of Federal Securities Regulation by the Securities and Exchange Commission*, 59 COLUM. L. REV. 697, 701 (1959).

[9] For the firsthand description of the circumstances surrounding the adoption of Rule X-10B-5 by its principal drafter, *see* Milton V. Freeman, *Administrative Procedures*, 22 BUS. LAW. 891, 922 (1967). Analyzing the SEC's position expressed during various congressional hearings, Professor William H. Painter concluded that "it is extremely doubtful that, prior to the *Cady, Roberts & Co.* case, the Commission envisaged Rule 10b-5 as having any real application to insider trading beyond the fraud area." WILLIAM H. PAINTER, THE FEDERAL SECURITIES CODE AND CORPORATE DISCLOSURE § 5.09, at 223 (1979). *See also* Comment, *The Prospects for Rule X-10B-5: An Emerging Remedy for Defrauded Investors*, 59 YALE L.J. 1120, 1137–38, 1143–54 (1950) (discussing the Rule's applicability to insider trading and exploring its potential scope).

[10] The most readable and fascinating account of the demise of the fixed brokerage commissions regime on the NYSE is CHRIS WELLES, THE LAST DAYS OF THE CLUB (1975). For another excellent presentation of this subject, see JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET: A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE chs. 11-13 *passim* (3d ed. 2003).

tual dominance of securities markets constituted the most powerful economic force tearing down the status quo and forcing the brokerage industry to resort to non-price competition to capture the lucrative business provided by institutions.[11] The much-awaited transition to negotiable rates occurred on the famous "Mayday" of May 1, 1975.[12] By that time, however, the price-fixing system had already been eroded by various "free" services, secret rebates, and reciprocal business arrangements provided by brokers to their preferred clients, such as institutional investors.[13]

Upon observing such questionable practices in the brokerage industry, the SEC became heavily involved in the management of the fixed brokerage commissions regime by engaging in explicit and implicit ratemaking and aggressively policing against various mechanisms of non-price competition.[14] This surge of regulatory activism often expanded into other areas. As SEC Chairman Manuel F. Cohen remarked in 1965, "Almost every regulatory problem we have concerning the securities markets is related in some way to the level or structure of the rates prescribed by the minimum commission rules of the New York Stock Exchange."[15] In fact, the SEC attempted to retain the fixed brokerage commissions regime or, at least, to manage the process of its deregulation, and the regulators focused on controlling the regime's impact on securities markets rather than quickly dismantling it in favor of price competition.[16] The SEC had doubts about negotiable rates, favoring regulation instead, and seemed to operate under the assumption that "a minimum commission schedule is necessary and appropriate to effective and efficient operation of an exchange."[17] Phillip A. Loomis, Jr., an influential SEC insider, probably captured the regulators' view when he expressed the fear that "the most practical consequence [of negotiable rates] would be that there would be no particular incentive for anybody to be an Exchange member except specialists, floor traders, or brokers on the floor."[18] Most likely, the regulatory agency's micromanagement of brokerage commissions ultimately slowed down the process of deregulation and aided the anticompetitive practices of the securities industry. As a leading historian of the SEC maintained, "No issue did more to bring into question [its] historic reputation . . . than the Commission's han-

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11 *See infra* Section I.

12 *Id.*

13 *Id.*

14 *See* SELIGMAN, *supra* note 10, chs. 11–13 *passim.*

15 Manuel F. Cohen, Chairman, Sec. and Exch. Comm'n, Address Before the Investment Bankers Association of America 5 (Nov. 30, 1965), http://www.sec.gov/news/speech/1965/113065cohen.pdf (last visited May 27, 2008).

16 *See* SELIGMAN, *supra* note 10, chs. 11–13 *passim.*

17 REPORT OF THE SECURITIES AND EXCHANGE COMMISSION ON THE PUBLIC POLICY IMPLICATIONS OF INVESTMENT COMPANY GROWTH, H.R. REP. NO. 89-2337, at 185 (1966) [hereinafter PUBLIC POLICY IMPLICATIONS].

18 Phillip A. Loomis, Jr., *Comment*, 21 BUS. LAW. 181, 182 (1965).

dling of a related cluster of stock-exchange commission-rate and membership rules in the 1963-1973 period."[19]

Faced with price controls and strong pressures to provide kickbacks, brokerage firms with access to inside information frequently passed it to their preferred clients in exchange for brokerage business.[20] As one contemporary commentator observed, "If significant corporate news becomes known to a broker, he will, of course, be inclined to use it . . . . [T]hat brings him business, [not] the fact that he charges lower commissions than his competitors, for this he is not permitted to do."[21] Given the existence of such practices and the SEC's stance on the fixed brokerage commissions regime, Professor Henry G. Manne suggested the following explanation for the emergence of insider trading regulation: "It is possible that the SEC's original interest in a rule against insider trading arose in part from its vigorous enforcement of the fixed commission rate structure . . . . Information, as a valuable commodity, could easily be used to make rebates to favoured customers, thus upsetting the 'cartel' arrangement . . . ."[22] Indeed, the regulatory agency's enforcement actions that created insider trading regulation and Chinese Walls were in fact largely aimed at insider trading practices that were created or magnified by the existence of the fixed brokerage commissions regime.[23] These enforcement actions also addressed the older fears of the representation of financial institutions on corporate boards[24] and the flow of information within such institutions.[25]

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19 SELIGMAN, *supra* note 10, at 382.

20 *See infra* Section I.C.

21 DANIEL JAY BAUM & NED B. STILES, THE SILENT PARTNERS: INSTITUTIONAL INVESTORS AND CORPORATE CONTROL 30 (1965); *see also infra* Section I.C.

22 Henry G. Manne, *Insider Trading*, *in* 2 THE NEW PALGRAVE DICTIONARY OF MONEY & FINANCE 416, 416 (Peter Newman et al. eds., 1992). The link between the fixed brokerage commissions regime and the emergence of insider trading regulation is also addressed in Henry G. Manne & Joseph J. Bial, *Questioning the SEC's Crusades*, REGULATION, Winter 2001, at 8.

23 This article attempts to include in its analysis every relevant case pertaining to insider trading adjudicated or litigated by the SEC from 1961 to 1975. For an earlier list of insider trading cases covering this time period, see Michael P. Dooley, *Enforcement of Insider Trading Restrictions*, 66 VA. L. REV. 1, 74-83 (1980).

24 The first serious assault on board representation of financial institutions, as an alleged means of exercising control over the economy, occurred during the famous Money Trust Investigation, better known as the Pujo Hearings. *See Money Trust Investigation: Investigation of the Financial and Monetary Conditions in the United States Under House Resolution Nos. 429 and 504 Before the Subcomm. of the H. Comm. on Banking and Currency*, 62d Cong. *passim* (1912-13) [hereinafter *Pujo Hearings*]. Contemporary commentators often attacked that practice as inherently inefficient. *See, e.g.*, LOUIS D. BRANDEIS, OTHER PEOPLE'S MONEY 196 (1914) ("The failure of the banker-management . . . is a natural result of confusing functions of banker and business man."); WILLIAM Z. RIPLEY, RAILROADS: FINANCE AND ORGANIZATION, at vii (1915) ("Bankers . . . are not in intimate daily contact with the great body of patrons which the railroads serve. . . . [M]any of our railroad troubles are traceable to their overweight of influence upon directorates."). In response, the financial community claimed that this practice came into existence not because "the banker [desired] to manage the daily affairs of the corporation or to purchase its securities more cheaply than he otherwise could; but rather because of his

This article argues that the emergence of modern regulation of information flows in securities markets can be traced to the demise of the fixed brokerage commissions regime during the 1960s and early 1970s. Section I examines the evolution of the fixed brokerage commissions regime on the New York Stock Exchange and argues that its downfall was due to the rise of institutional investing and resulting reciprocal practices and payoffs that were often critically scrutinized by the regulators. Section II discusses the background and significance of the *Cady, Roberts* decision and asserts that its factual circumstances suggest a clear connection between the use of inside information and the existence of the fixed brokerage commissions regime. Section III argues that the overall enforcement program of the SEC that led to insider trading regulation and the creation of Chinese Walls was largely aimed at the brokerage industry and hence strongly influenced by the existence of the fixed brokerage commissions regime. Section IV examines the evolution of the fixed brokerage commissions regimes in the United Kingdom and Japan and maintains that such price controls strongly influenced insider trading practices and the emergence of the regulation of information flows in those countries. This article concludes with the assertion that modern regulation of information flows in securities markets originated to constrain certain practices of the securities industry, which were greatly influenced by the existence of the fixed brokerage commissions regime, and comments on the political-economy aspects of this regulatory development.

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moral responsibility as sponsor for the corporation's securities, to keep an eye upon its policies, and to protect the interests of investors." Letter from J.P. Morgan & Co. to A. P. Pujo, Chairman, Comm. on Banking and Currency, U.S. House of Representatives (Feb. 25, 1913), *reprinted in Morgan Defense in as Pujo Finishes*, N.Y. TIMES, Feb. 28, 1913, at 7. Empirical research is sympathetic to board representation of banking houses during that era. *See* J. Bradford De Long, *Did J.P. Morgan's Men Add Value? An Economist's Perspective on Financial Capitalism*, *in* INSIDE THE BUSINESS ENTERPRISE: HISTORICAL PERSPECTIVES ON THE USE OF INFORMATION 205 (Peter Temin ed., 1991); Carlos D. Ramirez, *Did J.P. Morgan's Men Add Liquidity? Corporate Investment, Cash Flow, and Financial Structure at the Turn of the Twentieth Century*, 50 J. FIN. 661 (1995).

[25] During the 1932-34 U.S. Senate hearings on financial practices and their connection to the severe economic crisis, known as the Pecora Hearings after its chief counsel, Ferdinand Pecora, there was an emerging concern that, within banking houses, inside information obtained through board representation was shared for trading purposes. *See Stock Exchange Practices: Hearings Before S. Comm. on Banking and Currency on S. Res. 84 and S. Res. 56*, 73d Cong. pt. 1, at 205 (1933-34) [hereinafter *Pecora Hearings*] (Ferdinand Pecora asking George Whitney, a partner of J.P. Morgan & Co., whether information acquired by the latter as a result of his directorships was shared with other Morgan partners); *id.* pt. 2, at 814-15 (Ferdinand Pecora asking William Ewing, a partner of J.P. Morgan & Co., whether the latter's profitable transaction in the stock of Johns-Manville Co. was based on information obtained from the Morgan partners who served as directors of that company and whether he deliberately abstained from discussing Johns-Manville-related information with these partners). Both bankers denied that such information-sharing had taken place. *Id.* pt. 1, at 205, pt. 2, at 814-15.

I. THE RISE AND FALL OF THE FIXED BROKERAGE COMMISSIONS REGIME ON THE NEW YORK STOCK EXCHANGE

This section examines the evolution of the fixed brokerage commissions regime on the New York Stock Exchange and argues that its downfall was due to the rise of institutional investing and resulting reciprocal practices and payoffs that were often critically scrutinized by the regulators. Section I.A traces the origins and subsequent development of the fixed brokerage commissions regime, as well as its impact on other securities markets, and analyzes the demise of price controls from the standpoint of economic and regulatory developments during the 1960s and early 1970s. Section I.B examines reciprocal practices and payoffs during that time period—which attracted the SEC's attention—and argues that they largely grew out of the rise of institutional investing. Section I.C maintains that the fixed brokerage commissions regime created strong incentives for brokerage firms with access to inside information to pass on such information to preferred clients. Section I.D asserts that the fixed brokerage commissions regime gave rise to the system of give-ups that was scrutinized by the regulators and often served as a payment system in the market for inside information.

A. *History of the Fixed Brokerage Commissions Regime*

The existence of price controls was the cornerstone of the Buttonwood Agreement signed on May 17, 1792, which is generally thought to have created the predecessor organization to the New York Stock and Exchange Board which was organized on March 8, 1817[26] and renamed the New York Stock Exchange on January 29, 1863.[27] The parties to the Agreement promised "not [to] buy or sell from this day for any person whatsoever, any kind of Public Stock at a less rate than one-quarter per cent. Commission [sic] [and to] give a preference to each other in our Negotiations."[28] From its inception, the New York Stock and Exchange Board also had minimum

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[26] *Compare* Peter Eisenstadt, *How the Buttonwood Tree Grew: The Making of a New York Stock Exchange Legend*, 19 PROSPECTS: ANN. AM. CULTURAL STUD. 75, 91 (1994) (treating the signing of the Buttonwood Agreement and the formation of the New York Stock and Exchange Board as "two distinct (though obviously related) events"), *with* Richard Sylla, *The Origins of the New York Stock Exchange*, *in* THE ORIGINS OF VALUE: THE FINANCIAL INNOVATIONS THAT CREATED MODERN CAPITAL MARKETS 299, 308 (William N. Goetzmann & K. Geert Rouwenhorst eds., 2005) (arguing for the continuity between these two events, principally on the grounds that four signers of the Buttonwood Agreement were among the founders of the New York Stock and Exchange Board).

[27] For the unanimous resolution of the Exchange membership to rename their association, which was in line with the frequent informal use of the name "New York Stock Exchange," see New York Stock & Exchange Board Minutes (Jan. 29, 1863).

[28] Gordon v. NYSE, Inc., 422 U.S. 659, 663 (1975) (quoting the Buttonwood Agreement).

commission rates.[29] The "private club" character of the Exchange made no guarantee of admission,[30] and the restrictions on brokerage rates were reinforced by the restrictions on membership.[31]

Over time, the institution of fixed brokerage commissions, the "commission law," became engrained in the minds of the Exchange membership.[32] In 1894, the NYSE stated that "[t]he Commission law is the fundamental principle of the Exchange, and on its strict observance hangs the financial welfare of all the members, and the life of the Institution itself."[33] Similarly, during the Pujo Hearings in 1912-13, Frank Knight Sturgis, who previously served as a NYSE President, colorfully stated that "[t]he violation of the commission law we regard as one of the most infamous crimes that a man can commit against his fellow members in the exchange, and as a gross breach of good faith and wrongdoing of the most serious nature."[34] For a private monopoly without any government protection the NYSE was very successful.[35] Its ability to maintain price controls was probably a re-

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29 WALTER WERNER & STEVEN T. SMITH, WALL STREET App. D, at 193 (1991) (reproducing the 1817 Constitution).

30 A study of the New York Stock and Exchange Board states that "[n]ew members were added regularly, especially in peak trading years, but it was equally common for applications of brokers possessing the highest character and business qualifications to be summarily rejected." *Id.* at 30.

31 On October 23, 1868, the NYSE recognized property rights in its seats as transferable assets, and, in the course of the Exchange's subsequent history as a member-owned organization, additional seats were added only through the 1869 merger with the Open Board of Brokers and the Government Bond Department, other securities exchanges in New York City, the sale of seats in order to finance the construction of a new building in 1879, and the special "seat dividend" to its members in 1929. NYSE Euronext, Facts & Figures, http://www.nyxdata.com/factbook (follow "Historical" hyperlink; then follow "Chronology of New York Stock Exchange (1792-1929)" hyperlink) (last visited May 27, 2008).

32 The NYSE experimented with a provision in its constitution allowing "members [to] halve commissions with banks, licensed brokers, and stock and exchange brokers," but this arrangement lasted only from 1869 to 1875. BIRL E. SCHULTZ, THE SECURITIES MARKET AND HOW IT WORKS 222 (1st ed. 1942).

33 JOINT COMM. OF ARRANGEMENTS AND LAW, N.Y. STOCK EXCH., REPORT TO THE GOVERNING COMMITTEE, N.Y.S.E. (1894), *reproduced in* N.Y. Stock Exch., Minutes of the Governing Committee, pt. 4, at 583 (Apr. 13, 1894). The Governing Committee adopted the resolutions recommended by the report. *Id.* at 584.

34 *Pujo Hearings*, *supra* note 24, pt. 11, at 840. The report of the Pujo Committee did not object to the existence of the fixed brokerage commissions regime as such, finding "the present rates to be reasonable, except as to stocks, say $25 or less in value" and arguing that governmental regulation should protect the NYSE against competition that "would lower the service and threaten the responsibility of members." REPORT OF THE COMMITTEE APPOINTED PURSUANT TO HOUSE RESOLUTIONS 429 AND 504 TO INVESTIGATE THE CONCENTRATION OF CONTROL OF MONEY AND CREDIT, H.R. REP. NO. 62-1593, at 115 (1913). The Committee also observed that a "very low or competitive commission rate would also promote speculation and destroy the value of membership." *Id.* at 115-16.

35 For sources that look at the early history of the fixed brokerage commissions regime without too much negativity, see John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 YALE L.J. 1, 36 n.107 (2001) ("At least during the late nineteenth century . . . more speculative issues were driven off the NYSE less by quality controls than by the impact of the NYSE's high-cost commission structure."); Paul G. Mahoney, *The*

sult of "the scale economies of providing a continuous auction market for stocks."[36]

During the New Deal-era congressional hearings on the proposed regulation of securities exchanges, Samuel Untermyer, the former counsel to the Pujo Committee, remarked that the NYSE, as a "public institution" and a likely natural monopoly, should have its commissions "either be fixed by some governmental authority or be supervised by such authority."[37] The Securities Exchange Act of 1934 did just that by authorizing the newly-created SEC to exercise oversight of "fixing of reasonable rates of commission" on national securities exchanges,[38] creating a means of public enforcement of the fixed brokerage commissions regime. In stark contrast, only four years later, the legislation passed to regulate the over-the-counter ("OTC") market specifically prohibited national securities associations from adopting rules that would "impose any schedule of prices [or] fix minimum rates of commissions, allowances, discounts, or other charges."[39] This difference might be explained by the centralization of all trading on the physical floor of a securities exchange and the feasibility of mutual monitoring, as opposed to the decentralized OTC market, justifying the perceived need for uniformity.

Up until the 1960s, the SEC was passive in its review of the NYSE's proposed changes to its minimum commissions schedule, and the Exchange was able to exercise a great degree of discretion over its brokerage rates.[40] Also, as noted by one scholar, "other [securities] exchanges tend[ed] to follow [the NYSE's rate schedule] almost completely [and] the bulk of the trading volume upon these exchanges consist[ed] of [NYSE-listed] stocks."[41] Furthermore, an SEC study concluded that "the NYSE minimum

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Exchange as Regulator, 83 VA. L. REV. 1453, 1487 (1997) ("[W]e cannot be certain how the NYSE managed to maintain minimum commissions for over a century before the onset of regulation despite the apparent ease with which new exchanges could enter the market and compete for listings.").

36 Gregg A. Jarrell, *Change at the Exchange: The Causes and Effects of Deregulation*, 27 J.L. & ECON. 273, 275 (1984).

37 *Pecora Hearings*, *supra* note 25, pt. 16, at 7705.

38 Securities Exchange Act of 1934, Pub. L. No. 73-291, § 19(b)(9), 48 Stat. 881, 899.

39 Maloney Act, Pub. L. No. 75-719, 52 Stat. 1070, 1071 (1938) (inserting Section 15A(b)(7) into the Securities Exchange Act of 1934).

40 *See* SIDNEY ROBBINS, THE SECURITIES MARKETS: OPERATIONS AND ISSUES 176-77 (1966) ("Except for . . . occasional mildly negative reactions, the Commission, at least until the present, has never interposed any serious objection to the rate increases that have been adopted and, by and large, they have followed the form of the original proposals [of the NYSE]."). For a description of those rate increases proposed by the Exchange and the corresponding reactions of the SEC, see REPORT OF THE SPECIAL STUDY OF SECURITIES MARKETS OF THE SECURITIES AND EXCHANGE COMMISSION, H.R. DOC. NO. 88-95, pt. 2, at 329-33, 344-46 (1963) [hereinafter SPECIAL STUDY].

41 John R. Johnson, *Application of Antitrust Law to the Securities Industry*, 20 SW. L.J. 536, 540 (1966); *see also* David L. Ratner, *Regulation of the Compensation of Securities Dealers*, 55 CORNELL L. REV. 348, 361 (1970) (arguing that "the NYSE commission rate structure determines the pattern for the industry").

rate commission schedule ha[d] a substantial effect upon pricing [for agency transactions] in the over-the-counter markets."[42] In reality, the Exchange's brokerage commissions schedule dictated actual rather than minimum prices; even the regulatory agency admitted that "the minimum has, in practice, become a ceiling as well as a floor."[43]

Starting in the 1960s, the maintenance of the fixed brokerage commissions regime became problematic due to the rise of actively-trading institutional investors, such as insurance companies, mutual funds, pension funds, and hedge funds.[44] These sophisticated entities had the bargaining power to demand non-price extras or hidden rebates from brokerage firms and the option of switching to alternative trading venues.[45] The Exchange was losing its market share to the over-the-counter "third market" in NYSE-listed securities that had no fixed charges and to regional exchanges with more lenient policies on rebates.[46] Institutional investors even created an informal "fourth market" to trade among themselves to avoid any charges altogether.[47]

During the examined period, the Exchange was attacked by institutional investors, pushing for either negotiable rates or NYSE membership,[48]

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42 SPECIAL STUDY, *supra* note 40, pt. 2, at 624.

43 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 157.

44 WELLES, *supra* note 10, chs. 2-3. For other dimensions of the growing importance of institutional investing during that time period, see ADOLF A. BERLE, POWER 259-60 (1969) ("[If institutional investors] chose to exert influence on the managements of the corporations whose securities they owned (they vigorously disclaim any such intention), they would be able to make or break corporate managements at will."); PAUL P. HARBECHT, PENSION FUNDS AND ECONOMIC POWER 10 (1959) ("[T]he pension trusts are one of the primary centers of power in the newly emerging social system."). Some commentators treated the institutionalization of securities markets with skepticism, but others favored it. *Compare* David B. Bostian, Jr., *The De-Institutionalization of the Stock Market in American Society: A Question of National Economic Security*, FIN. ANALYSTS J., Nov.-Dec. 1973, at 30, *with* Roger F. Murray, *Institutionalization of the Stock Market: To Be Feared or Favored?*, FIN. ANALYSTS J., Mar.-Apr. 1974, at 18.

45 WELLES, *supra* note 10, chs. 2-3.

46 The Exchange itself saw "unmistakable forces shifting relative volume away from the nation's central action market to regional exchanges and the so-called third market." Robert W. Haack, President, N.Y. Stock Exch., Remarks at the Economic Club of New York: Competition and the Future of the New York Stock Exchange, [1970] Sec. Reg. & L. Rep. (BNA), No. 77, at J-1 (Nov. 17, 1970) [hereinafter Haack's Remarks]. The NYSE perceived regional securities exchanges as "nothing more than rebate mechanisms to get commissions to those who do not qualify or to return them to institutions." *Id.* at J-2.

47 *See, e.g.*, Lee Silberman, *Institutional Investors Begin Trading Stocks Among Selves*, WALL ST. J., Jan. 11, 1965, at 1 ("[The] principal motive [for direct trading among institutions] is to save the commissions they would pay if they traded through brokers. . . . [I]f commissions on large transactions were lower, institutions might be less eager to bypass [brokers] by arranging direct deals among themselves.").

48 *See, e.g.*, WELLES, *supra* note 10, at 94; Richard Phalon, *Flexible Rates Described as Alternative*, N.Y. TIMES, Mar. 3, 1971, at 57; *Prudential Will Seek Big Board Seat If Fees on Stocks Aren't Cut*, WALL ST. J., Mar. 5, 1970, at 2; *see also Institutional Membership on National Securities Exchanges:*

by economists seeing price controls as a sign of economic inefficiency,[49] and by the Antitrust Division of the U.S. Department of Justice pointing to anticompetitive effects of this cartel-like arrangement.[50] But the NYSE vehemently opposed the abolition of fixed brokerage commissions and advanced economic arguments favoring their necessity.[51] Furthermore, even as the NYSE yielded to the demand to allow infusion of public capital to its member firms, it still tried, via special ownership restrictions for its seat holders, to prevent institutional investors from gaining direct access to the trading floor.[52] As pressures for negotiable rates increased, the Exchange

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Hearings Before the Subcomm. on Securities of the S. Comm. on Banking, Housing, and Urban Affairs, 92d Cong. (1972); Elkins Wetherill & George S. Hender, *Institutional Membership and the Experience of the Philadelphia-Baltimore-Washington Stock Exchange*, 13 B.C. INDUS. & COM. L. REV. 1021 (1972).

[49] *See, e.g.*, Harold Demsetz, *Perfect Competition, Regulation, and the Stock Market*, *in* ECONOMIC POLICY AND THE REGULATION OF CORPORATE SECURITIES 1, 19-22 (Henry G. Manne ed., 1969); Paul A. Samuelson, *Reforming Wall Street*, NEWSWEEK, Sept. 23, 1968, at 89; George J. Stigler, *Public Regulation of the Securities Markets*, 37 J. BUS. 117, 124 (1964); Richard R. West & Seha M. Tinic, *Minimum Commission Rates on New York Stock Exchange Transactions*, 2 BELL J. ECON. & MGMT. SCI. 577 (1971).

[50] *See, e.g., Fixed Rates and Institutional Membership: Hearings on S. 470 and S. 488 Before the Subcomm. on Securities of the S. Comm. on Banking, Housing and Urban Affairs*, 93d Cong. 347 (1972) [hereinafter *Fixed Rates and Institutional Membership Hearings*] (statement of Donald I. Baker, Director of Policy Planning, Antitrust Division, U.S. Department of Justice) ("The Department of Justice has long been of the view . . . that elimination of fixed rates would aid investors."); U.S. DEP'T OF JUSTICE, INQUIRY INTO PROPOSALS TO MODIFY THE COMMISSION RATE STRUCTURE OF THE NEW YORK STOCK EXCHANGE 3 (1968) ("[Maintenance of] an effective auction market . . . does not appear to justify the fixing of minimum commission rates by the NYSE. The economic characteristics of this industry, and past experience, do not indicate any significant risk of 'destructive' price levels, or adverse consequences to the exchange operation, from rate competition."), http://www.sechistorical.org/collection/papers/1960/1968_0401_USDept_Justice_Com_Rate.pdf (last visited May 27, 2008).

[51] The Exchange argued that the abolition of its minimum commissions schedule would decrease the incentive to join the NYSE, weaken its self-regulation and hence reduce the level of investor protection, lead to market fragmentation among trading venues, produce the internalization of order flow within brokerage firms, result in destructive competition in the brokerage industry, produce industry concentration and drive smaller efficient firms out of business, result in price discrimination to the disadvantage of individual investors, and decrease the incentive of brokerage firms to provide research and other ancillary services. *See* N.Y. STOCK EXCH., ECONOMIC EFFECTS OF NEGOTIATED COMMISSION RATES ON THE BROKERAGE INDUSTRY, THE MARKET FOR CORPORATE SECURITIES, AND THE INVESTING PUBLIC (1968); N.Y. STOCK EXCH., THE ECONOMICS OF MINIMUM COMMISSION RATES: REPLY OF THE NEW YORK STOCK EXCHANGE TO MEMORANDUM OF THE ANTITRUST DIVISION OF THE DEPARTMENT OF JUSTICE, DATED JANUARY 17, 1969 (1969). For sources criticizing the NYSE's arguments, see William F. Baxter, *NYSE Fixed Commission Rates: A Private Cartel Goes Public*, 22 STAN. L. REV. 675 (1970); H. Michael Mann, *The New York Stock Exchange: A Cartel at the End of Its Reign*, *in* PROMOTING COMPETITION IN REGULATED MARKETS 301 (Almarin Phillips ed., 1975); West & Tinic, *supra* note 49.

[52] *See* WELLES, *supra* note 10, at 96-99; Baxter, *supra* note 51, at 681-82. *See also* Note, *Public Ownership of Stock Exchange Firms: Antitrust and Other Problems*, 70 COLUM. L. REV. 102, 102 (1970) (arguing that the NYSE was "fearful that true public ownership would lead to institutional [investor] control of member firms").

called for the abolition of off-board trading in NYSE-listed securities, a rather unrealistic demand, in exchange for negotiable rates.[53] Throughout the 1960s and up until the introduction of negotiable rates in 1975, the NYSE also became entangled in lawsuits to defend its fixed brokerage commissions and membership restrictions.[54] The Exchange even considered—but did not adopt—a rule requiring *all* of its members to report "any direct or indirect reciprocal or clearing arrangements related to New York Stock Exchange listed commission business" involving *any* NYSE member, non-member broker or dealer, or institutional investor.[55]

The regulatory and economic strains seriously weakened the fixed brokerage commissions regime. Even the NYSE President had to admit that the retention of price controls was questionable: "[A]lthough I have argued that negotiated rates would bring about a degree of destructive competition, I now ask myself whether fixed rates have not brought about that very same kind of self-destruction [through] overly-zealous service type competition [and are] not the single greatest reason for our market fragmentation."[56] The leadership of the SEC also had to admit that the fixed brokerage commissions regime "was suffering from all the evils that character-

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[53] The resolution of the NYSE Board of Directors called for "a combined program of legislation and regulation concurrently eliminating fixed commission rates on all orders and establishing the requirement that all trades of listed securities be made on registered securities exchanges operating under similar rules and regulations." *Fixed Rates and Institutional Membership Hearings*, *supra* note 50, at 437 (statement of James J. Needham, Chairman of the Board of Directors and Chief Executive Officer, New York Stock Exchange, Inc.) (quoting the resolution).

[54] *See* Gordon v. NYSE, Inc., 366 F. Supp. 1261 (S.D.N.Y. 1973), *aff'd*, 498 F.2d 1303 (2d Cir. 1974), *aff'd*, 422 U.S. 659 (1975) (alleging the illegality of the institution of fixed brokerage commissions on the NYSE); Thill Sec. Corp. v. NYSE, 283 F. Supp. 239 (E.D. Wis. 1968), *rev'd*, 433 F.2d 264 (7th Cir. 1970), *cert. denied*, 401 U.S. 994 (1971) (alleging the illegality of the NYSE's prohibition on sharing brokerage commissions with non-members); Kaplan v. Lehman Bros., 250 F. Supp. 562 (N.D. Ill. 1966), *aff'd*, 371 F.2d 409 (7th Cir. 1967), *cert. denied*, 389 U.S. 954 (1967) (alleging the illegality of the institution of fixed brokerage commissions on the NYSE); Robert W. Stark, Jr., Inc. v. NYSE, Inc., 346 F. Supp. 217 (S.D.N.Y. 1972), *aff'd*, 466 F.2d 743 (2d Cir. 1972) (contesting the revocation of the NYSE membership because of a recapitalization plan giving an ownership stake to a broker-dealer affiliate of an institutional investor that had been previously denied the NYSE membership); Abbott Sec. Corp. v. NYSE, 384 F. Supp. 668 (D.D.C. 1974) (mem.) (alleging that the NYSE denied economic access to its floor to certain non-member broker-dealers and attempted to retain all fixed brokerage commissions on orders of institutional investors by monopolizing the market); Reinisch v. NYSE, 52 F.R.D. 561 (S.D.N.Y. 1971) (alleging the illegality of the institution of fixed brokerage commissions on the NYSE); Jefferies & Co. v. NYSE, Inc., [1971] Sec. Reg. & L. Rep. (BNA), No. 123, at D-1 (S.D.N.Y. filed Oct. 18, 1971) (contesting the denial of the NYSE membership to a broker-dealer controlled by a major institutional investor); *see also* Robert Anthony Ginsburg, *Antitrust and Stock Exchange Minimum Commissions: A Jurisdictional Analysis*, 24 U. MIAMI L. REV. 732 (1970) (discussing the limits of judicial review of the securities exchanges' rules subject to the SEC's control and the related issue of implied antitrust immunity for such rules).

[55] N.Y. Stock Exch., Minutes of the Board of Governors, pt. 10, at 1221 (Nov. 21, 1968).

[56] Haack's Remarks, *supra* note 46, at J-3.

ized cartel conduct: evasions, side deals, economic distortions"[57] and that the regulatory oversight of price controls "often result[ed] in a commission schedule which when finally approved no longer reflect[ed] the economic conditions in the business."[58] This vestige of the Buttonwood Agreement finally came to an end on May 1, 1975—after a series of slow steps[59]—with the SEC-mandated transition to fully negotiable commissions[60] under considerable pressure from the U.S. Congress.[61] The legislation that codified the abolition of the fixed brokerage commissions regime was passed later that year.[62]

In retrospect, scholars have attributed this pivotal change to economic forces: "The deregulation of NYSE brokerage rates followed a decade of dramatic growth in institutional trading, the evolution of low-cost alternatives to block trading on the exchange, and increased backward integration by institutional traders into the brokerage business."[63] Not surprisingly, deregulation resulted in a marked decrease in brokerage rates for many

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57 A. A. Sommer, Jr., Comm'r, Sec. and Exch. Comm'n, Address Before the New York Stock Exchange Marketing Conference: The SEC in the Midst of Revolution 3 (June 10, 1974), http://www.sec.gov/news/speech/1974/061074sommer.pdf (last visited May 27, 2008).

58 G. Bradford Cook, Chairman, Sec. and Exch. Comm'n, Address Before the Securities Industry Association: Commission Rates in the Securities Business 5 (May 11, 1973), http://www.sec.gov/news/speech/1973/051173cook.pdf (last visited May 27, 2008).

59 *See* Fixed Commission Rates on Exchange Transactions, Exchange Act Release No. 11,093, 1974 SEC LEXIS 2352, at *4-5, 9-10, 11-12, 19-20 (Nov. 8, 1974) (describing how the SEC, sometimes acting through the NYSE rather than directly, introduced a fixed discount for orders of 1,000 shares or more in December 1968, made brokerage charges on orders of $500,000 or more negotiable in April 1971, approved a substantial discount for non-member broker-dealers in September 1971, lowered the dollar amount of negotiable orders to $300,000 in April 1972, and introduced negotiable rates for orders *less* than $2,000 in April 1974). In the fall of 1974, the NYSE, along with the majority of other leading securities exchanges, refused to abolish its fixed brokerage commissions regime, despite the SEC's request to do so voluntarily. *Id.* at *21.

60 The SEC took its final action abolishing the fixed brokerage commissions regime in the beginning of 1975. Adoption of Securities Exchange Act Rule 19b-3, Exchange Act Release No. 11,203, 1975 SEC LEXIS 2381 (Jan. 23, 1975).

61 *See, e.g.*, SECURITIES INDUSTRY STUDY, REPORT OF THE SUBCOMM. ON COMMERCE AND FINANCE OF THE S. COMM. ON BANKING, HOUSING AND URBAN AFFAIRS, 92D CONG. 60 (Comm. Print 1972) (arguing that "the interests of the investing public, as well as the long-term health of the securities industry itself, require that stock exchange members be free to set their own commissions on transactions effected for their customers"); SECURITIES INDUSTRY STUDY, REPORT OF THE SUBCOMM. ON COMMERCE AND FINANCE OF THE HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, H.R. REP. NO. 92-1519, at 143-44 (1972) (finding that "the fixed minimum commission rates are not in the public interest"); Barry R. Weingast, *The Congressional-Bureaucratic System: A Principal Agent Perspective (with Applications to the SEC)*, 44 PUB. CHOICE 147, 160 (1984) (arguing that "Congress, not the SEC, played the decisive role in NYSE [brokerage commissions] deregulation").

62 Securities exchanges were prohibited from fixing "rates of commissions, allowances, discounts, or other fees to be charged by [their] members" with some exceptions at the SEC's discretion. Securities Acts Amendments of 1975, Pub. L. No. 94-29, § 4, 89 Stat. 97, 107-09 (amending Section 6(e) of the Securities Exchange Act of 1934).

63 Jarrell, *supra* note 36, at 307.

categories of orders[64] and in the price of a NYSE seat,[65] suggesting that the fixed brokerage commissions regime allowed the brokerage industry to capture monopoly profits. Furthermore, the abolition of price controls eliminated the need for many reciprocal practices of the brokerage industry,[66] although deregulation might have created some unexpected practices of its own.[67]

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64 Empirical research indicates that the NYSE rates for all types of institutional transactions and large-sized individual transactions had declined in absolute terms from 1975 to 1980. Jarrell, *supra* note 36, at 282; Seha M. Tinic & Richard R. West, *The Securities Industry Under Negotiated Brokerage Commissions: Changes in the Structure and Performance of New York Stock Exchange Member Firms*, 11 BELL J. ECON. 29, 36 (1980). The rates for several categories of smaller orders had increased in absolute terms, indicating that, previously, smaller trades were subsidized by larger trades. Jarrell, *supra* note 36, at 282. But, taking into account inflation, even these rates had probably declined. Tinic & West, *supra*, at 35.

65 *See* G. William Schwert, *Public Regulation of National Securities Exchanges: A Test of the Capture Hypothesis*, 8 BELL J. ECON. 128, 143-45 (1977).

66 On the other hand, the introduction of competitive rates has not eliminated reciprocal brokerage practices completely, suggesting that this phenomenon is partially explained by something other than just uncompetitive pricing. For instance, the practice of "directed brokerage," i.e., directing commission business to compensate for distributing mutual fund shares, has persisted. *See, e.g.*, Forsythe v. Sun Life Fin., Inc., 417 F. Supp. 2d 100 (D. Mass. 2006); *In re* Lord Abbett Mut. Funds Fee Litig., 407 F. Supp. 2d 616 (D.N.J. 2005); *In re* Columbia Entities Litig., Civil Action No. 04-11704-REK, 2005 U.S. Dist. LEXIS 33439 (D. Mass. Nov. 30, 2005); Prohibition on the Use of Brokerage Commissions to Finance Distribution, Investment Company Act Release No. 26,591, 69 Fed. Reg. 54,728 (Sept. 2, 2004); *see also* U.S. Sec. and Exch. Comm'n, The Roundtable of the 1963 SEC Special Study 91 (Oct. 4, 2001) (comment of Michael Eisenberg, SEC staff member), http://www.sechistorical.org /collection/oralHistories/roundtables/1963SECSpecialStudy/1963Transcript.PDF (last visited May 27, 2008) ("There were give-ups, and now they're called step-outs, but they're functionally the same thing. We used to worry about interpositioning, and now you have 'introducing brokers,' and they are functionally the same thing. You used to have reciprocal business, now it's payment for order flow.").

67 One can make an argument that the abolition of price controls, in the long run, contributed to pervasive conflicts of interest within securities firms that performed both securities research and investment banking services. *See Analyzing the Analysts: Hearings Before the Subcomm. on Capital Markets, Insurance, and Government Sponsored Enterprises of the H. Comm. on Financial Services*, 107th Cong. 4 (2001) (statement of Rep. Paul E. Kanjorski, Member, H. Comm. on Financial Services) ("After the deregulation of trading commissions in 1975, Wall Street firms began using investment banking as a means to compensate their research departments, and within the last few years the tying of analysts' compensation to investment banking activities has become increasingly popular."); Stephen Barr, *The Hard Sell*, CFO, Nov. 2001, at 74, 76 ("[As a result of] the end of fixed-rate minimum commissions . . . trading fees plummeted and analyst research reports no longer paid for themselves . . . . [A]nalysts increasingly became [pressured] to attract new corporate finance clients, to promote initial public offerings on road shows, and to use their research reports to hype companies' prospects."); Kris Frieswick, *More Bricks in the Wall*, CFO, Oct. 2002, at 67, 68 (quoting A. Gary Shilling, the former chief economist of Merrill Lynch) ("May Day '75 took the fat out of the commission structure. Analysts started looking for a new trough to feed at, and investment bankers provided it."); *see also* FERRARA ET AL., *supra* note 2, § 9.04[3] (discussing the perceived need to strengthen the separation between securities research and investment banking in the wake of the 2000-02 stock market bust and the regulatory actions of the U.S. Congress, SEC, and self-regulatory organizations that mandated Chinese Walls between such functional areas in order to ensure the integrity of securities analysts' research reports).

B. *Non-Price Competition Among Brokers*

The fixed brokerage commissions regime on the NYSE was frequently described as a cartel.[68] As economic theory dictates, while every cartel participant is interested in collective price-fixing, he also has the incentive to undercut other participants by engaging in non-price competition or secretly offering lower prices and other rebates.[69] In fact, despite the collective interest in maintaining the minimum commissions schedule intact, brokerage firms provided additional services pertaining to securities transactions at no charge.[70] They also engaged in reciprocal business arrangements with their customers and other rebative practices that were only remotely related or even unrelated to the securities transactions for which commissions were charged.[71] While additional services and reciprocal business arrangements, for the most part, were permitted, the NYSE combated more obvious kickbacks.[72] Of course, the boundaries between "cheating" and non-price competition were difficult to draw. Furthermore, as noted by an SEC study, the existence of such "extras" did not benefit everyone: "[I]nclusion of the cost of ancillary services [may be forcing a trader to pay] for services he does

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68 *See, e.g.*, Baxter, *supra* note 51; Jarrell, *supra* note 36; Mann, *supra* note 51; Manne, *supra* note 22.

69 *See* ROBERT B. EKELUND, JR. & ROBERT D. TOLLISON, ECONOMICS: PRIVATE MARKETS AND PUBLIC CHOICE 283-85 (6th ed. 2000).

70 Such services included providing private wire and teletype services, pricing of securities portfolios of institutional investors in order to compute net asset values for sale or redemption, performing investment research, such as trading recommendations, overview of specific industries and companies, analysis of market trends, on-demand research, and so on. PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 163-64.

71 For mutual funds, brokerage firms distributed mutual fund shares. *See Scandal Troubles Mutual Funds*, BUS. WK., July 25, 1959, at 25, 25 (stating that the effect of informal agreements between mutual funds and brokerage companies was "to channel a mutual fund's brokerage business through the Wall Street firm in rough proportion to the amount of the fund's shares that these brokers sell"). For trust departments of commercial banks, brokerage firms held their funds at such banks. *See* WELLES, *supra* note 10, at 69 ("[B]etween 75 percent and 90 percent of bank trust brokerage . . . was allocated to particular brokers for the express purpose of generating reciprocal deposits in no-interest demand accounts."). For non-member broker-dealers operating on other exchanges or in the OTC market, brokerage firms sent orders from their own clientele for securities traded in such markets to those outside broker-dealers. *See* PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 168-69; SPECIAL STUDY, *supra* note 40, pt. 2, at 302-07.

72 For instance, the NYSE prohibited such rebative practices as favorable securities repurchase agreements; gifts and contributions to third parties; securities lending arrangements without compensation; tender solicitation fees, finders fees, or dealer distribution fees split with customers; purchases of services and goods at more than a competitive price; and distribution of commissions as allowances in underwritings, fees for research, or retainers. N.Y. Stock Exch., M.F. Educational Circular No. 242 (Aug. 30, 1968); Memorandum from Robert W. Haack, President, N.Y. Stock Exch., to Members and Allied Members, N.Y. Stock Exch. (May 13, 1968) (on file with author).

not want [without the opportunity] of taking his business to another member who neither performs the unwanted services nor charges for them."[73]

The pervasiveness of non-price competition starting around the early 1960s is best explained by the growth of institutional investing and, consequently, more frequent block transactions.[74] As explained by a leading authority on the economics of regulation:

> [T]he rates were uniform *per 100 shares* [which was] [t]he critical defect .... [I]t obviously does not cost ten times as much to carry out an order to buy or sell 1,000 as 100 shares; if both purchases are made in a single transaction, the cost is likely to be the same for each. So this schedule of rates embodied a gross discrimination against large orders.[75]

An SEC study similarly observed that brokers could "profitably execute and clear transactions for investment companies and other large institutional customers at a cost which is only a fraction of the commissions they must charge."[76] Given this price-cost disparity, institutional investors and individual brokerage firms adjusted charges with extra services, reciprocal business arrangements, and rebates. In contrast, most individual investors traded relatively infrequently, were less sensitive to transactions costs, and had little use for most "extras." Also, as Professor George J. Stigler noted, it is easier to keep a price-cutting deal with a large customer secret from rivals,[77] and size-adjusted transaction costs of such deals are lower.[78] The brokerage cartel became unstable precisely because of the presence of large "buyers" and a sizable number of "sellers,"[79] i.e., institutional investors and brokerage firms, respectively.[80] Meanwhile, institutional investors still sought the prized NYSE membership,[81] presumably because non-price "extras" did not fully compensate for excessive fixed rates.

Non-price competition, reciprocal arrangements, and rebative practices were destroying the cartel's viability by eating up the NYSE brokerage firms' collective profits. Furthermore, these practices attracted the attention of the Exchange and the SEC. In a 1970 speech, NYSE President Robert W. Haack observed that "the proliferation of reciprocal practices in the se-

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73 SPECIAL STUDY, *supra* note 40, pt. 2, at 321.

74 WELLES, *supra* note 10, chs. 2-3.

75 2 ALFRED E. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS 196 (1971).

76 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 163.

77 George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44, 47 (1964).

78 *Id.* at 47 n.8.

79 *See* EKELUND & TOLLISON, *supra* note 69, at 285 (describing various factors that make cartels unstable).

80 From 1960 to 1975, the number of NYSE member firms varied from 494 to 681. NYSE Euronext, Facts & Figures, http://www.nyxdata.com/factbook (follow "NYSE and Membership" hyperlink; then follow "Member organizations (1899-1979)" hyperlink) (last visited May 27, 2008).

81 *See supra* note 48.

curities industry [was] not only threatening the central marketplace but [was] tending to undermine the entire moral fabric of a significant industry as well."[82] For its part, as early as the late 1950s, the Commission was paying attention to conflicts of interest created by the existence of the fixed brokerage commissions regime. For instance, in 1959, Joseph C. Woodle, the director of the SEC's Division of Corporate Regulation, stated that the Commission could "ask Congress for additional legislation to control the way reciprocal business is parceled out. It's clear that any time a fund's investment manager decides to buy or sell for the benefit of a broker, instead of his shareholders, he's violating his fiduciary responsibility."[83]

C. *Inside Information as a Rebate*

Inside information served as another valuable rebate provided by brokers to their preferred customers,[84] given that many brokerage firms had access to inside information by virtue of performing investment banking or advisory services for, being represented on boards of directors of, or even being tipped by issuers.[85] Furthermore, brokers could use confidential information, without disclosing it to the ultimate beneficiaries, via discretionary accounts which were "especially suitable for dealing in information whose value will be exploited rapidly in the market."[86] Contemporary commentators suggested that institutional investors actively desired this service: "Inside information, the hint of things to come, becomes a valued commodity to the institutions under constant pressure to make productive use of the monies entrusted to them. It is data affirmatively sought; its successful harvesting can alter institutional investment decisions."[87] Further-

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82 Haack's Remarks, *supra* note 46, at J-2.

83 *Scandal Troubles Mutual Funds*, *supra* note 71, at 26.

84 Of course, one must distinguish between inside information and securities research that aggregates publicly available information and pieces of nonpublic information that are immaterial by themselves. Brokerage firms did provide securities research, but its usefulness was questionable: "[O]nly about 10 percent of Wall Street's research product—perhaps the most important single service other than order execution that the brokerage community provides—was considered sufficiently valuable by those who use it that they would be willing to pay hard cash for it." WELLES, *supra* note 10, at 73 (interpreting the results of the survey in Heidi S. Fiske, *Learning to Live with Negotiated Rates*, INSTITUTIONAL INVESTOR, Mar. 1974, at 45, 48). *See also* R. E. Diefenbach, *How Good Is Institutional Brokerage Research?*, FIN. ANALYSTS J., Jan.-Feb. 1972, at 54, 59 ("We were unable *anywhere* (with one possible exception) to find that quality of excellence so often claimed for institutional research.").

85 *See infra* Sections III.A and III.B (describing enforcement actions involving such practices of brokers).

86 MANNE, *supra* note 1, at 73.

87 BAUM & STILES, *supra* note 21, at 36; *see also Stock Market Study: Hearings Before the S. Comm. on Banking and Currency*, 84th Cong. 536-37 (1955) [hereinafter *Stock Market Study Hearings*] (statement of Benjamin Graham, Chairman of the Board, Graham-Newman Corp.) (an official of an institutional investor arguing that the insider trading prohibition did not extend to trading on confidential

more, compared to most brokerage firms and individual investors, institutional investors possessed adequate financial resources and were sufficiently diversified to make large stakes on the basis of such information and to bear the risk of its ultimate price effect. Of course, brokers would *always* be interested in providing valuable information to their customers, even in the absence of fixed commissions. On the other hand, the existence of price controls, while ensuring inflated brokerage fees, made non-price competition especially important in order to attract the lucrative business provided by institutional investors. This factor greatly magnified the incentive to provide inside information, given a relatively low cost of obtaining such information through privileged access to issuers, and discouraged brokers from trading on inside information only for themselves.

Widespread use of inside information was in fact observed in securities markets, coinciding with growing pressures on price controls. In 1967, a business periodical noted that the fixed brokerage commissions regime had, within the past ten years, "encouraged the proliferation of more-or-less questionable practices" of brokerage firms, such as supplying preferred customers "with the fruits of 'research,' which all too often means advance word on secondary offering, airline route award, dividend cut or other valuable information."[88] The same publication pointed to "the huge success enjoyed by performance [of] hedge funds, which, thanks to their unparalleled ability to generate commission business, have first call on the best information available to Wall Street."[89] Furthermore, there is evidence that brokers marketed confidential information about upcoming takeovers to institutional investors.[90]

In 1966, Professor Henry G. Manne hypothesized that "many directorships [serve] as information-exchange appointments."[91] Indeed, brokerage firms explicitly or implicitly marketed stocks of companies in which their representatives held directorships, citing informational advantages. An SEC study illustrated that trend by quoting a broker who "testified that when he receives inside information through a directorship, he transmits this information to his salesmen for the use of the firm's customers and that this is 'one of the reasons why I hope we will be a little more successful than other houses on the street.'"[92] The same SEC study also observed that quite a few brokerage companies were represented on boards of both listed

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information obtained by institutions from management because of the absence of any fiduciary duty to shareholders).

88 *Advice to Brokers*, BARRON'S NAT'L BUS. & FIN. WKLY., Nov. 20, 1967, at 1, 8.

89 *Heresy on Insiders*, BARRON'S NAT'L BUS. & FIN. WKLY., Oct. 31, 1966, at 1, 1 (reviewing MANNE, *supra* note 1).

90 Eileen Shanahan, *Insurance Mergers Questioned*, N.Y. TIMES, May 6, 1969, at 57.

91 MANNE, *supra* note 1, at 65.

92 SPECIAL STUDY, *supra* note 40, pt. 1, at 437; *see also id.* (noting an instance when another "firm acquired adverse information concerning a company through a directorship, that information was transmitted to customers holding the security").

and OTC companies,[93] which certainly gave them access to inside information. Furthermore, it was recognized that, even when a broker-underwriter was not represented on the corporate board, it still had a sure means of access to inside information by virtue of performing financial services for the issuer.[94]

As with other rebative practices, this trend also caught the attention of the regulators as an interference with the orderly functioning of securities markets. In 1972, SEC Chairman William J. Casey condemned "the practice of paying for inside information by allocating 'research' commissions to a brokerage firm" and stated that, "[t]o ensure the integrity and fairness of the markets, the Commission has made it clear that the professional who comes into the possession of inside information has the obligation neither to act on this information nor to pass it on."[95] In a 1973 speech, SEC Chairman G. Bradford Cook also attacked business practices where "inside information was routinely disseminated under the guise of research in exchange for brokerage commissions" and criticized "companies [that] often wind up passing along to analysts nonpublic bearish information, which is in turn passed to institutions, who then go out and clobber the company's stock"[96] Commissioner Philip A. Loomis, Jr. made a similar observation in 1972: "I don't think it encourages fairer markets when institutional salesmen who, having been given information entrusted to their syndicate departments, in confidence, proceed to pass it on to certain institutions, in some cases receiving directed commissions as a reward therefore."[97] Analyzing the attitudes within the regulatory agency, an outside observer concluded that "many at the SEC believe some of [brokerage] firms merely use research as a vehicle to solicit inside data that they pass on to large customers."[98]

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93 *Id.* pt. 1, at 429.

94 *Id.* pt. 1, at 433-34.

95 William J. Casey, Chairman, Sec. and Exch. Comm'n, Address Before the Financial Analysts Federation: Research in the Changing Structure and Economics of the Securities Markets 11 (May 22, 1972), http://www.sec.gov/news/speech/1972/052272casey.pdf (last visited May 27, 2008).

96 G. Bradford Cook, Chairman, Sec. and Exch. Comm'n, Address Before the New York Society of Security Analysts: The Role of the Analyst in the Evolving Market System 9 (Mar. 27, 1973), http://www.sec.gov/news/speech/1973/032773cook.pdf (last visited May 27, 2008) [hereinafter Cook's Speech].

97 Phillip A. Loomis, Jr., *Loomis on Inside Information*, FIN. ANALYSTS J., May-June 1972, at 20, 21.

98 Wayne E. Green, *SEC Sees Court Rulings on 'Insider' Trading Changing Brokers' Method of Operations*, WALL ST. J., Sept. 30, 1968, at 30.

D. *Give-Up System and Its Abolition*

One of the complex rebative arrangements on the NYSE and other securities exchanges was the system of customer-directed give-ups "derived from the customer's ability to direct the member executing a transaction [to pay a part] of the customer's commission payment, in cash, to another member."[99] As of the mid-1960s, NYSE members were willing to give-up as much as sixty percent of the full commission.[100] Give-ups were offered in exchange for services not necessarily related to that specific transaction, such as providing securities research and distributing shares of mutual funds.[101] The give-up system certainly benefited large customers that needed such services. It is illustrative that, in 1968, the NYSE members gave-up thirty-eight percent of the $243 million in commissions received from investment companies.[102]

Give-ups certainly represented a surplus above the marginal cost that could be reallocated away from the executing broker. Such payments also served as an alternative currency in securities markets.[103] Even the regulators admitted that the give-up system was a creature of price controls:

> In the over-the-counter markets where brokerage costs are subject to negotiation, customer-directed give-ups to brokers who perform no necessary function in connection with a transaction long have been recognized as improper and illegal. Mutual fund give-up practices have been tolerated and have spread in the exchange markets *only* because of exchange minimum commission rate schedules, which do not take into account the nature and cost of providing brokerage services to large institutional investors.[104]

There is evidence that the give-up system played a big role in disseminating inside information disguised as "research." As one commentator described the transmission of inside information by brokerage companies to their clients, "Even if the tipster firm does not get the order [from the tipped institutional client], it can share the commission through customer-directed

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99 SPECIAL STUDY, *supra* note 40, pt. 2, at 316-17.

100 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 170. Give-ups were certainly a phenomenon of the 1960s. As noted by the NYSE President, "[G]ive-up practices only began to approach their present magnitude within the past six or seven years . . . . In 1961, only 4 to 5 percent of the New York Stock Exchange commissions were given up." Robert W. Haack, President, N.Y. Stock Exch., Statement Regarding the SEC Rate Structure Investigation, [1968-1969 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 77,590, at 83,247 (Aug. 19, 1968). *See also* INSTITUTIONAL INVESTOR STUDY REPORT OF THE SECURITIES AND EXCHANGE COMMISSION, H.R. DOC. 92-64, pt. 4, at 2192 tbl.XIII-19 (1971) [hereinafter INSTITUTIONAL INVESTOR STUDY] (documenting that the volume of give-ups on the NYSE directed by investment companies increased from $10.4 million in 1964 to $71.5 million in 1968).

101 SPECIAL STUDY, *supra* note 40, pt. 2, at 317.

102 INSTITUTIONAL INVESTOR STUDY, *supra* note 100, pt. 4, at 2183.

103 *See* Richard W. Jennings, *The New York Stock Exchange and the Commission Rate Struggle*, 53 CAL. L. REV. 1119, 1124 (1965).

104 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 17 (footnote omitted).

give-ups."[105] The existence of give-ups strengthened the organized market for inside information by providing a convenient payment system for selling information, unattached to any other service, for hard cash.[106]

The SEC expressed grave doubts about the place of give-ups in the fixed brokerage commissions regime: "Customer-directed give-ups raise questions as to the propriety of the commission rate schedule itself. Assuming that a minimum commission schedule is necessary and appropriate to effective and efficient operation of an exchange, the commission rate structure . . . should not give direct or indirect discriminatory rebates to particular classes of customers."[107] At least until its *Merrill Lynch* decision in 1968,[108] the Commission did not articulate that give-ups were used to pay for inside information. Instead, the principal argument was that give-up practices created "distortions and artificial devices in the securities markets [and] interfere[d] with the orderly functioning of the markets, the effective execution of customer orders and the channeling of competitive forces for the benefit of public investors."[109] In 1965, the Commission started its campaign to abolish give-ups, and, by the end of 1968, this change was adopted through the SEC's pressure on individual securities exchanges rather than an official action.[110]

The NYSE, brokerage firms themselves, and other members of the securities industry were hesitant to abolish give-ups, offering several arguments in favor of this practice. The Exchange's position was that "[g]ive-ups provide a highly flexible means of compensating various brokerage firms for different constructive services within the framework of a single commission [and] permit[] some firms to concentrate on fundamental research, others to build Floor know-how, and others to focus on local re-

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105 *Investment Concerns Review Procedures to Avoid Possible Conflicts of Interest*, WALL ST. J., Aug. 29, 1968, at 24.

106 The establishment of a market for information about securities can be problematic, but, in this case, the likely factors for its success were the repeated interaction and credibility of privileged access to issuers. *See also* Jack Hirschleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 61 AM. ECON. REV. 561, 565 (1971) (noting that "it may not be easy for an informed individual to authenticate possession of valuable foreknowledge for resale purposes").

107 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 185.

108 Merrill Lynch, Pierce, Fenner & Smith, Inc., 43 S.E.C. 933 (1968).

109 PUBLIC POLICY IMPLICATIONS, *supra* note 17, at 185.

110 For a description of the SEC's actions to abolish give-ups and the analysis of their propriety, see Indep. Broker-Dealers' Trade Ass'n v. SEC, 442 F.2d 132 (D.C. Cir. 1971), *cert. denied*, 404 U.S. 828 (1971). For another description of the SEC's war on give-ups, see SELIGMAN, *supra* note 10, at 398-405. The prohibition of give-ups had not completely stopped commission-splitting practices of the brokerage community. For instance, institutional investors started sending large orders to block positioners via "friendly" brokers that performed various services for such investors in exchange for the difference between the public and intermember commission rates. James L. Hamilton, *Deregulation in the Securities Brokerage Industry*, *in* DEREGULATION: APPRAISAL BEFORE THE FACT 75, 86 (Thomas G. Gies & Werner Sichel eds., 1982).

search and local shareholders."[111] A securities industry organization, in which the NYSE member firms were heavily represented, similarly argued that "the trade practice of give-ups has been adopted as the most efficient and equitable means of sharing the compensation for services actually performed."[112] Goldman Sachs stressed the role of give-ups "in compensating for *essential services* that accrue to *the benefit of shareholders*."[113] The Investment Bankers Association supported the retention of "both a minimum stock exchange commission rate concept and the division of that commission among bona fide broker-dealers which perform direct or ancillary services for customers."[114]

Institutional investors defended the give-up system to the extent the fixed brokerage commissions regime remained in place. One of the leading hedge funds described this practice as a form of compensation "for economic information, investment advice and research work in securities. This is the lifeblood of our operation; we could not continue in business without it."[115] This hedge fund also pointed out that "[n]o 'give-ups' [were] issued for the sale of shares or interests in our fund."[116] This comment illustrates the role of the give-up system as a method of distributing valuable information from brokerage firms to sophisticated investors. One of the largest mutual fund complexes was also expressed skepticism about abolishing give-ups: "[R]esearch services rendered by brokers are unquestionably beneficial to the funds and the fund shareholders. . . . [I]t is traditional and appropriate to compensate brokers for such services from portfolio brokerage."[117] Another leading institutional investor similarly commented that the use of give-ups "to reward a broker who expected to earn commissions on transactions placed through him because of a good research idea . . . is en-

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111 Letter from Robert W. Haack, President, N.Y. Stock Exch., to Orval L. DuBois, Sec'y, Sec. and Exch. Comm'n 6 (Mar. 21, 1968) (on file with author); *see also id.* at 11 ("[G]ive-ups are a most efficient and economical means of enabling substantial investors to meet their obligations, as they see them, to many brokers.").

112 Ass'n of Stock Exch. Firms, Comments on SEC Proposed Rule 10b-10 and NYSE Proposal on Commission Rates, Fed. Sec. L. Rep. (CCH), extra ed. no. 198, May 3, 1968, at 38 (n.d.).

113 Letter from Goldman, Sachs & Co. to Orval L. DuBois, Sec'y, Sec. and Exch. Comm'n 3 (Mar. 29, 1968), http://www.sechistorical.org/collection/papers/1960/1968_0329_GoldmanSachs_10b10.pdf (last visited May 27, 2008).

114 Letter from Francis B. Schanck, President, Inv. Bankers Ass'n of America, to Manuel F. Cohen, Chairman, Sec. and Exch. Comm'n 1 (Aug. 16, 1968), http://www.sechistorical.org/collection/papers/1960/1968_0816_Schanck.pdf (last visited May 27, 2008).

115 Letter from [name redacted] to Special Comm. on Member Firm Costs and Revenues, N.Y. Stock Exch. 2 (Mar. 3, 1967) (on file with author).

116 *Id.*

117 Letter from Robert M. Loeffler, Vice President - Law, Investors Diversified Servs., Inc., to Sec. and Exch. Comm'n 2 (Mar. 29, 1968), http://www.sechistorical.org/collection/papers/1960/1968_0329_IDS.pdf (last visited May 27, 2008).

tirely proper."[118] Likewise, one institutional investor did not condemn the give-up system as such[119] but pointed to a preferred alternative where "the excess cash [would be] available directly to the customer in the form of lower commissions rather than in the form of the privilege of deciding to whom within a certain limited class, it should be given."[120]

Thus, the give-up system was a creature of the fixed brokerage commissions regime, which also provided a payment system in the market for inside information involving brokerage firms and large investors. As questionable give-up practices came under the SEC's scrutiny, both the brokerage industry and the institutional investor community opposed their abolition. It might seem surprising that the NYSE had reservations about the elimination of an implicit discount, but this might be explained by a potential competitive disadvantage presented by the existence of give-up practices on other securities exchanges and difficulties with monitoring other exchanges' compliance with an SEC-mandated ban.[121]

II. *CADY, ROBERTS* DECISION: ITS BACKGROUND, SIGNIFICANCE, AND CONNECTION TO THE FIXED BROKERAGE COMMISSIONS REGIME

This section discusses the background and significance of the *Cady, Roberts* decision and asserts that the facts suggest a clear connection between the use of inside information and the existence of the fixed brokerage commissions regime. Section II.A examines the underlying facts and argues that the use of inside information by the brokerage firm was a response to competitive pressures under the constraints of the fixed brokerage commissions regime. Section II.B analyzes subsequent actions of the NYSE and shows that the Exchange did not have a serious interest in outlawing the use of inside information by its members. Section II.C looks at

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118 Letter from D. George Sullivan, Vice President, Fidelity Mgmt. & Research Co., to Sec. and Exch. Comm'n 3 (Mar. 29, 1968), http://www.sechistorical.org/collection/papers/1960/1968_0329_Fidelity.pdf (last visited May 27, 2008).

119 Letter from Frank J. Hoenmeyer, Executive Vice President, Prudential Ins. Co. of Am., to Orval L. DuBois, Sec'y, Sec. and Exch. Comm'n 3–5 (Mar. 29, 1968), http://www.sechistorical.org/collection/papers/1960/1968_0329_Prudential.pdf (last visited May 27, 2008).

120 *Id.* at 4.

121 *See* SPECIAL COMM. ON MEMBER FIRM COSTS AND REVENUES, N.Y. STOCK EXCH., INTERIM REPORT ON VOLUME DISCOUNT, CUSTOMER-DIRECTED GIVE-UPS AND NONMEMBER BROKER DISCOUNT (1968), *reproduced in* N.Y. Stock Exch., Minutes of the Board of Governors, pt. 10, at 1028 (June 27, 1968) ("[The practice of give-ups] weakens the economic basis of the minimum commission structure itself [but] cannot be effectively abolished by the unilateral action of one national securities exchange. To be effective, the action taken must apply uniformly to all markets."); *see also* Memorandum from Irving M. Pollack, Dir., Div. of Trading and Mkts., Sec. and Exch. Comm'n, to Sec. and Exch. Comm'n 2 (Nov. 20, 1967), http://www.sechistorical.org/collection/papers/1960/1967_1120_Memo_Pollack.pdf (last visited May 27, 2008) ("The Division believes that no exchange will unilaterally deal with the [give-ups] problem and Commission action is necessary in this area.").

the initial reaction of the regulators to the *Cady, Roberts* affair and argues that their actions can be traced to the concern over directorships held by brokerage firms. Section II.D shows that the *Cady, Roberts* decision was a major milestone for the regulation of insider trading.

A. *Facts in the Context of the Fixed Brokerage Commissions Regime*

On November 25, 1959, J. Cheever Cowdin, a member of the board of directors of the Curtiss-Wright Corporation and a registered representative of Cady, Roberts & Co., a NYSE brokerage firm, informed Robert M. Gintel, a partner in the same brokerage firm, that the Curtiss-Wright board had decided to cut the dividend from 62.5 to 37.5 cents despite favorable publicity about the new internal combustion engine developed by the company.[122] It is unclear whether this information leak was prearranged, but Cowdin, at least on a few occasions, had called Gintel right after board meetings in the past. The phone call from Cowdin to the order clerk who conveyed the information to Gintel occurred during a brief recess of the board meeting shortly after the dividend decision was made. While in possession of this information, Gintel made a series of stock dispositions and short sales of the Curtiss-Wright common stock before the news appeared on the Dow Jones ticker tape. Gintel had been selling some of the Curtiss-Wright holdings at his disposal earlier that morning before receiving the tip, but, most likely, this was done for liquidity purposes in response to the rising stock price during that period. Cowdin later claimed that he thought that the dividend news had already been disseminated at the time of his phone call and that he only wanted to inquire about the impact of the announcement on the stock price of Curtiss-Wright. On the other hand, Cowdin called the office of Cady, Roberts & Co. only about ten minutes after the dividend decision was made, making it unlikely that he expected a wide dissemination of this information to have occurred.

One of the most important facts in *Cady, Roberts* is the role played by a large mutual fund that invested heavily in Curtiss-Wright. A representative of that mutual fund—also an aerospace industry analyst—was in the office of Cady, Roberts & Co. and in contact with Gintel when the latter learned about the dividend reduction. In fact, that mutual fund representa-

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[122] The description of the underlying facts in the *Cady, Roberts* affair in this section is based on Dep't of Member Firms, N.Y. Stock Exch., Materials of the Censure of Robert M. Gintel (1959-60). These materials are especially valuable because the SEC file on the administrative proceeding against Cady, Roberts & Co. and Robert M. Gintel was destroyed, in accordance with the regulatory agency's retention policy for documents pertaining to broker-dealer administrative proceedings, after twenty-five years. *See* Letter from Mark P. Siford, FOIA/Privacy Act Research Specialist, Office of Filings and Info. Servs., Sec. and Exch. Comm'n, to author (July 18, 2006) (on file with author). Thus, materials pertaining to other important administrative proceedings discussed in this article have also been destroyed.

tive had initially contacted the brokerage firm specifically because he was trying to "get in touch" with the management of Curtiss-Wright and thought that it would be possible via the directorship held by Cowdin. Gintel sold 2,000 shares held by this mutual fund *after* Cowdin's phone call, avoiding the loss of approximately four dollars per share. The circumstances strongly suggest that Gintel in fact conveyed the information—or, at least, gave a sly wink—to the mutual fund representative and triggered the transaction.[123] Furthermore, a substantial portion of the short sales executed by Gintel were made on the joint account of individuals affiliated with—and recommended to Gintel by—the mutual fund representative.[124]

The NYSE suspected that Gintel used inside information to induce his client to direct brokerage business to his firm. Furthermore, there is evidence that Gintel was pressured to provide "research," often a codeword for inside information,[125] to institutional investors *precisely* because Cady, Roberts & Co.—unlike its many competitors—did not sell shares of mutual funds to obtain brokerage business and, consequently, had no means of providing this important kickback to its institutional clients. Thus, the facts of *Cady, Roberts* point to the strains of the fixed brokerage commissions regime and the competitive pressure on brokerage firms to transmit inside information to institutional investors. Another relevant issue was the representation of brokers on corporate boards, as Cady, Roberts & Co. had neither a formal policy on the issues pertaining to its employees serving on issuers' boards nor any internal information barriers to control the flow of inside information.

B. *Reaction of the New York Stock Exchange*

The NYSE did not classify Gintel's activities as a rebative practice, although it took the matter very seriously during that time period.[126] The Ex-

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123 Another important piece of information is that the institutional investor in question had sold approximately 10,000 Curtiss-Wright shares around the dividend-reduction announcement, i.e., through other brokerage firms besides Cady, Roberts & Co. It is quite likely that some of these orders were executed before the announcement, although the available information does not answer this question. If this is an accurate guess of what had happened, it would seem even clearer that the order executed though Cady, Roberts & Co. was a reward for conveying this crucial piece of information, although there might be other possible reasons for splitting a large order among different brokers.

124 However, it appears that the majority of short sales executed by Gintel were made on the accounts of customers not connected with any institutional investor.

125 *See Advice to Brokers*, *supra* note 88, at 8 (describing how brokers referred to inside information as "research").

126 Some kickback schemes involving brokerage firms were even adjudicated on the level of the NYSE's Board of Governors. *See, e.g.*, N.Y. Stock Exch., Minutes of the Board of Governors, pt. 6, at 398-416 (Nov. 18, 1959) (making payments to non-member customers to rebate commissions); *id.* pt. 6, at 334-38 (July 2, 1959) (nominally employing a registered representative in exchange for commission business).

change was more concerned with the role of the Curtiss-Wright Corporation in the delay of the dividend reduction announcement.[127] The Department of Member Firms, the NYSE's enforcement arm, even cautioned against the creation of a broad precedent aimed at insider trading:

> [T]he fact that the situation involves "inside information" might result in improper interpretation on the part of both member firms and the public that the Exchange had established a principle that the use at any time of information which had not been given general publicity is, per se, an offense against the public interest constituting conduct inconsistent with just and equitable principles of trade or act detrimental to the interest or welfare of the Exchange when no such conclusion is intended.[128]

In other words, the Exchange did not feel particularly threatened or disturbed by then-existing insider trading practices in the brokerage community, and, after all, Cowdin and Gintel broke no clear legal or industry norm. This stance was consistent with the NYSE's historic policy of not directly regulating and only occasionally criticizing trading on inside information by corporate employees,[129] imposing special restrictions on trading by NYSE employees,[130] and having virtually no limitations on the use of

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[127] *See* Letter from Phillip L. West, Vice President, N.Y. Stock Exch., to Roy T. Hurley, Chairman, Bd. of Dirs., Curtiss-Wright Corp. 3 (Feb. 10, 1960) (on file with author) ("The delay in the release of the dividend news [warrants consideration], particularly in the light of the lengthy discussion between the Exchange and your Corporation some years ago in connection with the delay in the announcement of the deferred dividend action on the class A Stock.").

[128] Memorandum from Dep't of Member Firms, N.Y. Stock Exch. 7-8 (Feb. 4, 1960) (on file with author).

[129] In 1875, a special committee of the Exchange had expressed its disapproval of trading on confidential information by corporate insiders, the situation described as when "a favored few" use such information "to the prejudice of the many." Form Letter from Brayton Ives, Salem T. Russell & Donald MacKay, N.Y. Stock Exch., to listed companies (Oct. 11, 1875) (on file with author). The committee also observed that "[t]his unjustifiable action has done more than anything else to bring railroads, especially, into disrepute. 'Speculating Directors' have become so odious that we feel that honest officers owe it to themselves as well as to the public to correct this evil state of affairs . . . ." *Id. See also* Richard Whitney, President, N.Y. Stock Exch., Statement Made to the Governing Committee and the Membership in Regard to the Investigation of Stock Exchange Practices by the Banking and Currency Committee of the United States Senate 28-29 (Aug. 24, 1932) (on file with author) ("The Exchange, of course, has no control of corporate officers but it is unalterably opposed to the misuse of confidential information."). An interesting historical episode is that the NYSE and the securities industry as a whole were quite skeptical about the provisions of the Securities Exchange Act of 1934 that regulated trading by corporate insiders. For instance, in 1939, the leading securities exchanges—including the NYSE—argued for the repeal of Section 16(b) as detrimental to market liquidity and concluded that crafting legislation "designed to prevent the unfair use of inside information and to afford appropriate remedies to injured parties . . . is impracticable in the light of past experience." *Text of Exchanges' Proposals to SEC*, WALL ST. J., Mar. 15, 1939, at 11.

[130] A likely example of that policy is the NYSE's prohibition of trading by "any telephone clerk employed within the Exchange." N.Y. Stock Exch., Minutes of the Governing Committee, pt. 7, at 362-63 (Nov. 27, 1917). It is not inconceivable that this restriction might have been at least partially explained by the fact that telephone clerks played a role in transmitting orders to the floor of the Exchange,

inside information about listed companies by NYSE members. The Exchange had traditionally preferred to focus on mandating accurate and prompt corporate disclosure[131] rather than on regulating transactions by corporate insiders of listed companies. It was a sensible policy given the NYSE's lack of enforcement resources and jurisdiction over individual corporate insiders, and, most likely, the Exchange had no direct economic interest in prohibiting insider trading by corporate insiders and, even more so, by its own members.

The NYSE censured Gintel for "a short sale of 500 shares for a completely new account [for which he] had never before done business . . . and had no authorization for entering such an order" and imposed a fine of $3,000.[132] The Exchange did pay lip service to the issue of insider trading: "In view of . . . the particular circumstances under which you received the dividend information, you should have raised a question in your own mind of the propriety of using that information before it became public property."[133] But the NYSE "did not contemplate any publicity" of the *Cady, Roberts* affair[134] and preferred to take a rather minor enforcement action[135] rather than setting a precedent for its members.[136] Most likely, the Exchange acted at all only because it was pushed "to do something" by the

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giving them access to price-moving news, and that their trading might have decreased the profits of NYSE members themselves. *See also Stock Market Study Hearings*, *supra* note 87, at 57 (statement of G. Keith Funston, President, New York Stock Exchange) (stating that, as of 1955, "[n]o exchange employee can take advantage of any information that he secured as an exchange employee and purchase stock based on that information" and describing the procedures for reporting stock transactions for NYSE employees).

131 *See, e.g.*, ADOLF A. BERLE, JR. & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 297 (1932) (stating that the NYSE's listing standards were leading "towards an increasingly full and increasingly prompt disclosure"); WILLIAM Z. RIPLEY, MAIN STREET AND WALL STREET 210 (1927) (describing the NYSE as "the leading influence in the promotion of adequate corporate disclosure").

132 Minutes of Censure of Robert M. Gintel before the Advisory Committee of the Board of Governors of the New York Stock Exchange 1-2 (Feb. 24, 1960) (on file with author) [hereinafter Minutes of Censure]. The full Board was briefed about the censure shortly thereafter. N.Y. Stock Exch., Minutes of the Board of Governors, pt. 7, at 474 (Feb. 25, 1960).

133 Minutes of Censure, *supra* note 132, at 2.

134 Memorandum from J. H. Schwieger, Vice President, N.Y. Stock Exch. 1 (Feb. 11, 1960) (on file with author).

135 The fine imposed on Gintel was not intended to be punitive. In fact, the amount of the fine was slightly *less* than the trading profits made on the account of his wife on the basis of the dividend-reduction information. *See* Memorandum from Dep't of Member Firms, N.Y. Stock Exch., to Advisory Comm., Bd. of Governors, N.Y. Stock. Exch. 3 (Feb. 8, 1960) (on file with author). On the other hand, Cowdin's registration with the NYSE was withdrawn. Extract from Minutes of the Department of Member Firms Staff Meeting, New York Stock Exchange 1 (Feb. 25, 1960) (on file with author).

136 Initially, the NYSE decided against sending out an "educational circular" to its members, a device used to set self-regulatory precedents, pertaining to the *Cady, Roberts* affair. *See* N.Y. Stock Exch., Dep't of Member Firms, M.F. Educational Circular No. 132 (Jan. 1961) (draft, marked "not used") (on file with author).

regulators. In fact, there is evidence that the NYSE was not enthusiastic about the subsequent administrative adjudication issued by the Commission. According to SEC Chairman William L. Cary, NYSE President G. Keith Funston objected to the Commission's decision, "characterizing [it] as an unwarranted step toward raising standards to an unrealistic level."[137]

On the other hand, the NYSE did not oppose the *Cady, Roberts* decision publicly and even issued a pronouncement that the SEC's policy did not question "the ordinary practices of analysts and brokers seeking and using corporate information of type company officials would give to any one [sic] having a legitimate interest in the company."[138] Furthermore, the NYSE declared that:

> Any director of a corporation who is a partner, officer or employee of a member organization should recognize that his first responsibility in this area is to the corporation on whose Board he serves [and] meticulously avoid any disclosure of inside information to his partners, employees of the firm, his customers or his research or trading departments.[139]

Yet, given the competitive pressure to use inside information because of price controls, brokers were unlikely to comply with the NYSE's formal position on the limitations on the use of such information and the creation of internal information barriers.

C. *Initial Reaction of the SEC's New York Office*

The SEC's New York office reacted promptly to the unusual trading activities in the stock of Curtiss-Wright by launching its own investigation. John H. Schwieger, the NYSE's Vice President, described his conversation with Paul Windels, the Regional Administrator of the SEC's New York Office, regarding the regulators' likely motivations to intervene, as follows:

> Mr. Windels said that [Gintel] had been moving primarily on the backing of Rittmaster, who formerly was [sic] associated with Wolfson. According to Mr. Windels, some of Gintel's directorships have been the result of Rittmaster's direction. Mr. Windels said that he has the personal feeling that the transmission of dividend information from Cowdin to Gintel was not merely coincidental.[140]

In other words, the SEC's New York office was concerned with Gintel's ties to Louis Wolfson, the famous financial raider, and his associate Alex-

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137 WILLIAM L. CARY, POLITICS AND THE REGULATORY AGENCIES 84 (1967).

138 N.Y. Stock Exch., Dep't of Member Firms, M.F. Educational Circular No. 151 (Dec. 15, 1961).

139 N.Y. Stock Exch., Dep't of Member Firms, M.F. Educational Circular No. 162 (June 22, 1962).

140 Memorandum from J. H. Schwieger, *supra* note 134, at 1.

ander Rittmaster,[141] although neither of these two individuals appeared to be involved in trading on inside information in the stock of Curtiss-Wright.[142] Furthermore, the regulators paid special attention to the fact that Gintel himself served as a director of another company controlled by the Wolfson-Rittmaster group that was negotiating a merger with Curtiss-Wright,[143] as they probably had reservations about the expansion of the Wolfson empire. Additionally, the SEC had previously taken enforcement actions against Wolfson and corporate directors affiliated with him.[144] In other words, the regulators were tackling the issue of directorships held by the brokerage industry. Attaching great weight to the *Cady, Roberts* incident, the SEC's New York office prepared a report, drafted by William D. Moran, the SEC's Assistant Regional Administrator, recommending that the Commission "institute [broker-dealer] revocation proceedings against Cady, Roberts & Co. under Section 10-B-5 of the 1934 Act based on the conduct of Gintel and Cowdin . . . the *first* such proceeding under 10-B-5 . . . based on the claim that Gintel was in possession of inside information."[145]

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141 For some background information on Louis Wolfson and his "chief financial aide" Alexander Rittmaster, see DIANA B. HENRIQUES, THE WHITE SHARKS OF WALL STREET: THOMAS MELLON EVANS AND THE ORIGINAL CORPORATE RAIDERS 74-80, 151-57 (2000). *See also* Robert E. Bedingfield, *Personality: Aide and Commander as Well*, N.Y. TIMES, Oct. 6, 1957, at 17 (describing the alliance of Wolfson and Rittmaster); *Alexander Rittmaster Resigns as a Director of Merritt-Chapman*, WALL ST. J., Nov. 10, 1964, at 15 (describing Rittmaster's resignation that probably ended the period of his active collaboration with Wolfson).

142 On the other hand, Rittmaster, together with other associates of Wolfson's, also managed an investment company. Bedingfield, *supra* note 141; *New Fund Organized*, N.Y. TIMES, Sept. 18, 1957, at 22. The author speculates that Rittmaster might have been involved in directing brokerage commissions in exchange for inside information in other instances, although it is unclear whether this possibility was one of the SEC's considerations in the *Cady, Roberts* affair.

143 Memorandum from J. H. Schwieger, Vice President, N.Y. Stock Exch. 3 (Jan. 7, 1960) (on file with author).

144 *See* Litigation Release No. 1315, 1958 SEC LEXIS 895 (Aug. 1, 1958) (the SEC securing a permanent injunction enjoining Wolfson and his associates from violating antifraud and anti-manipulation regulation—including Rule X-10B-5—through their transactions in securities of American Motors Corp.). Previously, Wolfson placed two of his associates on the company's board of directors. *The Wolfson Story Begins a New Chapter; Climax or Anticlimax?*, WALL ST. J., Aug. 1, 1958, at 1. The American Motors incident was described as "the Wolfson-Windels clash," referring to the fact that the SEC team was led by the same Paul Windels. *Id.*

145 Memorandum from J. H. Schwieger, *supra* note 143, at 1 (emphasis added). SEC Chairman William L. Cary is usually credited for the outcome of *Cady, Roberts*, and, certainly, his role in pushing the decision through cannot be ignored. *See, e.g.*, Louis Loss, *Comment*, 63 COLUM. L. REV. 861, 861 (1963) ("[I]f Professor Cary does nothing else at the SEC he has earned his pay in *Cady, Roberts & Co.* I view it as a landmark in the law.") (footnote omitted). But this memorandum makes very clear that the SEC's enforcement machine was already in motion and that the decision to create the precedent under Rule 10b-5 reaching the use of inside information in impersonal markets had been taken in his absence. After all, Chairman Cary took office only on March 27, 1961. U.S. Sec. and Exch. Comm'n, Historical Summary, http://www.sec.gov/about/sechistoricalsummary.htm (last visited May 27, 2008). Furthermore, the discussion of insider trading in the treatise co-authored by Cary, RALPH J. BAKER & WILLIAM

D. *Regulatory Impetus of the* Cady, Roberts *Decision*

The SEC's administrative adjudication in the matter of Cady, Roberts & Co., which was authored by Chairman William L. Cary,[146] was a watershed event in securities regulation. In the words of Professor Donald C. Langevoort, this decision "built the foundation on which the modern law of insider trading rests."[147] Chairman Cary later observed that "the Commission, for the first time, said that the duty of insider disclosure or abstinence applied in an exchange market and that it was a fraudulent practice to sell a security while in possession of inside information in a faceless transaction as well as face-to-face."[148] The SEC's decision itself noted that "[i]t would be anomalous indeed if the protection afforded by the anti-fraud provisions were withdrawn from transactions effected on exchanges, primary markets for securities transactions."[149]

The Commission based the obligation to disclose information or abstain from its use on two broadly-defined principles:

> [T]he existence of a relationship giving access, directly or indirectly, to information intended to be available only for a corporate purpose and not for the personal benefit [and] the inherent unfairness involved where a party takes advantage of such information knowing it is unavailable to those with whom he is dealing.[150]

L. CARY, CASES AND MATERIALS ON CORPORATIONS 553-90 (3d unabr. ed. 1958), did not unambiguously suggest the future outcome of the *Cady, Roberts* decision.

146 Chairman Cary later acknowledged that the "ghost writer" of the *Cady, Roberts* decision was his assistant Arthur Fleischer, Jr. Symposium, *Insider Trading in Stocks*, 21 BUS. LAW. 1009, 1009 (1966).

147 Langevoort, *supra* note 5, at 1319.

148 William L. Cary, *The Direction of Management Responsibility*, 18 BUS. LAW. 29, 32 (1962). *Also compare* U.S. SEC. AND EXCH. COMM'N, PROPOSAL TO SAFEGUARD INVESTORS IN UNREGISTERED SECURITIES, H.R. DOC. NO. 79-672, at 9 (1946) [hereinafter PROPOSAL TO SAFEGUARD INVESTORS] (stating that "many of the cases in which managements have made unfair use of inside information may not be outright frauds in the legal sense; they maybe grossly unfair and unjustified without constituting violations of law"), *with Study of Securities and Exchange Commission: Hearings on Powers, Duties, and Functions of Securities and Exchange Commission Before a Subcomm. of the H. Comm. on Interstate and Foreign Commerce*, 82d Cong. pt. 1, at 725-26 (1952) [hereinafter *Study of Securities and Exchange Commission Hearings*] (statement of Peter T. Byrne, Regional Administrator, New York Office, Securities and Exchange Commission) (arguing that the SEC's interpretation of Rule X-10B-5 implied that "an insider cannot take advantage of a stockholder . . . in connection with the purchase from him or the sale to him of the company's stock where he has information not known to that man on the other side of the transaction because of his fiduciary obligation to disclose it to him" but did not cover transactions by tippees).

149 Cady, Roberts & Co., 40 S.E.C. 907, 914 (1961).

150 *Id.* at 912. The SEC also made the following statement: "In considering these elements under the broad language of the anti-fraud provisions we are not to be circumscribed by fine distinctions and rigid classifications." *Id.*

The *Cady, Roberts* decision also drew a line between information that has "a direct effect on the market value of securities" obtained as a result of privileged access to the issuer and information "arrived at as a result of perceptive analysis of generally known facts."[151]

The SEC's use of Rule 10b-5 in *Cady, Roberts*, in contrast to the much weaker and narrower Section 16 of the Securities Exchange Act,[152] expanded the scope of insider trading regulation and emphasized the role of administrative adjudications in creating regulatory norms.[153] The immediate outcome of the decision was a wake-up call for brokers and other securities market professionals who sat on corporate boards. As one contemporary commentator observed, "The subjection of the banker to vague and ill-defined risks . . . will result in, and has already caused, many competent persons to refuse to accept directorships."[154] Other commentators noted that institutional investors were often fed inside information by brokers and argued that "the wolf is certainly at the door for the institutions in the *Cady, Roberts* case."[155] Thus, this decision had a major significance for informational networks within the securities industry.

III. ENFORCEMENT STRATEGY OF THE SEC AND THE LINK BETWEEN FIXED BROKERAGE COMMISSIONS REGIME AND THE USE OF INSIDE INFORMATION

This section argues that the overall enforcement program of the Securities and Exchange Commission that led to insider trading regulation and the creation of Chinese Walls was largely aimed at the brokerage industry and hence strongly influenced by the existence of the fixed brokerage commissions regime. Section III.A develops this argument in the context of the SEC's actions involving the use of inside information for the benefit of brokers' clients. Section III.B develops the same argument in the context of the SEC's actions involving the creation of Chinese Walls within financial intermediaries. Section III.C asserts that the regulatory agency's en-

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151 *Id.* at 915.

152 The original Section 16 of the Securities Exchange Act of 1934, Pub. L. No. 73-291, 48 Stat. 881, 896–97, was substantially changed only in 1964, with its extension to the OTC markets and the creation of the exemption for market makers from the "short-swing" profit provision. Securities Acts Amendments of 1964, Pub. L. No. 88-467, § 8, 78 Stat. 565, 579.

153 For sources analyzing the administrative law aspects of *Cady, Roberts*, see CARY, *supra* note 137, at 82-84; Manuel F. Cohen & Joel J. Rabin, *Broker-Dealer Selling Practice Standards: The Importance of Administrative Adjudication in Their Development*, 29 LAW & CONTEMP. PROBS. 691, 715-16 (1964); Henry G. Manne, *Insider Trading and the Administrative Process*, 35 GEO. WASH. L. REV. 473, 480-83, 504-09 (1967). *See also* Cohen & Rabin, *supra* (comparing general rule-making and case-by-case adjudication by the SEC as alternative means of creating regulatory norms).

154 Daum & Phillips, *supra* note 5, at 959.

155 BAUM & STILES, *supra* note 21, at 39.

forcement program dealing with insider trading and Chinese Walls could be understood as the interaction of the consequences of the fixed brokerage commissions regime and other related factors.

A. *SEC's Enforcement Actions and the Use of Inside Information by Brokerage Firms for the Benefit of Their Clients*

As indicated earlier, *Cady, Roberts* most likely involved selective disclosure of information by a broker to an institutional client or, at a minimum, the use of such information for the client's benefit. This was the first of many similar enforcement actions of the SEC, and this trend suggests that the early development of insider trading regulation was heavily influenced by the fact that inside information served as a rebate for brokerage business.

One such enforcement action was brought against Frederic S. Mates. One of the charges was that Mates Financial Services ("MFS"), an entity controlled by Mates, "allocated the execution of securities transactions on behalf of MFS advisory clients to brokerage firms which gave MFS and Mates rebates [which] took the form of payments purportedly for an investment advisory publication."[156] The Commission also alleged that, in 1968, a director of Ramer Industries, a company listed on the American Stock Exchange ("AMEX"), who was also a partner of a brokerage firm that was a member of both the NYSE and AMEX, supplied Mates with inside information about Ramer in exchange for large orders in that stock executed through his firm: "Mates placed orders with the director for the purchase of a total of 27,000 shares of Ramer stock on behalf of the Fund [controlled by Mates] and two other mutual funds. Prior to this time, none of the three funds had ever transacted any business with the Ramer director."[157] These facts plainly suggest a hidden rebate on commissions, as the AMEX had a minimum commissions schedule similar to the NYSE's. Furthermore, the brokerage firm did not subscribe to MFS's advisory service and hence could not rebate money that way.[158]

Another illustration of how inside information served as a currency for brokerage business is the SEC's civil suit against Glen Alden Corporation.[159] In 1968, representatives of the NYSE-listed Glen Alden disclosed confidential information about the company during special meetings with representatives of Investors Diversified Services ("IDS"), the investment

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156 Mates Fin. Servs., 44 S.E.C. 246, 256 (1970).

157 *Id.* at 258.

158 Dep't of Member Firms, N.Y. Stock Exch., Materials of the Investigation in the Matter of Frederic S. Mates (1969).

159 SEC v. Glen Alden Corp., 68 Civil Action No. 3203, 1968 U.S. Dist. LEXIS 12081 (S.D.N.Y. Aug. 7, 1968).

advisory component of one of the largest mutual fund complexes.[160] The meetings were arranged by Carter, Berlind & Weill, a NYSE member.[161] According to the SEC, Glen Alden provided "sales, earnings and cash flow projections for Glen Alden and each of its divisions for the years 1968 to 1972, projected acquisitions and other material information concerning the affairs of Glen Alden and its related companies."[162] In other words, the SEC attacked the practice of selective disclosure arranged by a broker-dealer in exchange for brokerage commissions from its clients' transactions on inside information.

The SEC also brought an enforcement action against Butcher & Sherrerd, a NYSE member, for its 1970 transactions in the NYSE-listed Penn Central based on inside information that benefited its preferred clients as well as the insiders of the brokerage firm itself.[163] Butcher & Sherrerd was one of the members of the underwriting syndicate assembled to raise capital for a securities offering for a subsidiary of Penn Central.[164] The ultimate failure of this offering was concealed from the market: "[T]he month's biggest news—discovery that the debentures could not be sold—was never announced."[165] Apparently, the fact that Butcher & Sherrerd had resigned its directorships in all publicly-held companies—including the Penn Central directorship—in 1968[166] did not stop the flow and use of inside information.[167]

The SEC pursued a similar enforcement action against Bausch & Lomb, a NYSE-listed company, and Faulkner, Dawkins & Sullivan, a NYSE member firm.[168] The Commission's complaint alleged that, in 1972, the chairman of Bausch & Lomb conveyed inside information regarding its sales and expected earnings to a securities analyst at the brokerage firm, resulting in dispositions of stock and short sales on behalf of institutional

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160 *Id.* at *2.

161 *Id.*

162 *Id.* at *3. Later it was also alleged that Carter, Berlind & Weill served as an intermediary and an executing broker between Glen Alden and IDS in an attempt to assemble "friendly" shares for a takeover of another company by Glen Alden. Penn Mart Realty Co. v. Becker, 300 F. Supp. 731, 733-34 (1969).

163 Butcher & Sherrerd, Exchange Act Release No. 9894, 1972 SEC LEXIS 849 (Dec. 11, 1972).

164 Fred L. Zimmerman, *How Broker with Links to Penn Central Sold Shares Before Collapse*, WALL ST. J., Oct. 22, 1970, at 1.

165 *Id.*

166 *Broker Firm's Partners Quitting Boards of Public Firms to Bar Interest Conflict*, WALL ST. J., Oct. 1, 1968, at 6.

167 The collapse of Penn Central also raised a more general issue of board representation of other financial institutions and their access to inside information. The majority of the Penn Central directors represented large commercial banks, and some of those banks engaged in transactions that might have been based on inside information. *See The Banking Reform Act of 1971: Hearings on H.R. 5700, H.R. 3287, and H.R. 7440 Before the H. Comm. on Banking and Currency*, 92d Cong. pt. 2, at 743-45 (1971) (remarks of Rep. Wright Patman, Chairman, H. Comm. on Banking and Currency).

168 Litigation Release No. 5918, 1973 SEC LEXIS 2861, at *1 (June 4, 1973).

clients.[169] But the courts refused to impose liability, primarily because the SEC proved neither materiality of such information nor scienter.[170]

Yet another SEC enforcement action involving selective disclosure made by an issuer to a broker-dealer targeted the NYSE-listed Liggett & Myers. The court-approved settlement imposed on the company the duty to "implement, and hereafter supervise its employees' compliance with a written statement of policy with respect to disclosure of material nonpublic information, which contains procedures to prevent disclosure of material nonpublic information in violation of the federal securities laws."[171] The facts indicated that the issuer tipped selected brokers about important corporate developments, and at least one of them traded on behalf of a large institutional investor.[172]

These actions of the SEC indicate that the regulators were going after the use of confidential information obtained by broker-dealers via their board representation, performance of financial services, or tips provided by issuers themselves. The need to use such information for the benefit of large clients was strongly reinforced by the existence of the fixed brokerage commissions regime.[173]

B. *SEC's Enforcement Actions and the Creation of Chinese Walls Within Financial Intermediaries*

Enforcement actions of the SEC that encouraged the creation of Chinese Walls followed the same pattern. These actions also indicate that inside information served as a rebate for brokerage business and was transmitted within financial intermediaries largely due to distortions of competition imposed by—and also through the means, such as give-ups, created by—the fixed brokerage commissions regime.

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169 *Id.* For a more detailed description of the events, see *Bausch & Lomb, Officer, Brokers Charged by SEC*, WALL ST. J., June 5, 1973, at 2.

170 SEC v. Bausch & Lomb, Inc., 420 F. Supp. 1226 (S.D.N.Y. 1976), *aff'd*, 565 F.2d 8 (2d Cir. 1977).

171 SEC v. Liggett & Myers, Inc., 73 Civil 2796, 1973 U.S. Dist. LEXIS 11401, at *3 (S.D.N.Y. Oct. 24, 1973).

172 Elkind v. Liggett & Myers, Inc., 66 F.R.D. 36, 38-39 (S.D.N.Y. 1975).

173 Several cases involved the use of inside information by broker-dealers for the benefit of their clients in markets not subject to the fixed brokerage commissions regime. *See* SEC v. F.L. Salomon & Co., et al., Litigation Release No. 6056, 1973 SEC LEXIS 2534 (Sept. 13, 1973) (a lawsuit brought by the SEC against a large group of defendants, mostly broker-dealers, investment advisors, mutual funds, and their employees, for their involvement in the use of inside information about an OTC stock in 1971); Van Alstyne, Noel & Co., 43 S.E.C. 1980 (1969) (an SEC enforcement action against a broker-dealer for its use of inside information about an OTC-traded company in April-June 1968). *See also* Blythe & Co., 43 S.E.C. 1037 (1969) (an SEC enforcement action against a broker-dealer for trading on its account on inside information pertaining to new issues of government securities from January 1964 to November 1967).

The regulatory action that led to the widespread use of Chinese Walls within financial intermediaries was the SEC's *Merrill Lynch* decision. Merrill Lynch, one of the largest brokerage firms, was the managing underwriter of the NYSE-listed Douglas Aircraft's convertible subordinated debentures.[174] In its capacity as the underwriter, Merrill Lynch learned that Douglas was expecting little or no profit in the 1966 fiscal year and had reduced its earnings projections for the upcoming year.[175] The institutional sales personnel at Merrill Lynch, tipped by the underwriting personnel, shared this information with preferred clients.[176] Several of these clients sold the Douglas stock they held and also effected short sales of more than 190,000 shares on the NYSE.[177] In return, these clients executed such transactions through Merrill Lynch or directed their executing brokers to make give-up payments to Merrill Lynch.[178]

This episode suggests that insider trading practices were strongly influenced by the existence of the fixed brokerage commissions regime, as Merrill Lynch was rewarded not only with commission business but also with give-ups, further confirming that the give-up system, the creature of price controls, in some instances served as a means of paying for inside information. In the eyes of SEC attorneys, giving inside tips in exchange for brokerage dollars was "a relatively common practice."[179] The Commission's actions were also seen "as a further effort on the part of the regulatory agency to attack 'give-ups,' forced commission-splitting in return for service, such as tips on inside information,"[180] and the SEC seized this opportunity to abolish give-up practices altogether in a matter of months.[181] Furthermore, this episode illustrated the importance of non-price competition in an industry characterized by price controls. As a contemporary commentator concluded, "Merrill Lynch undoubtedly believed that competition required it to selectively pass on the information it had about Douglas' earnings."[182]

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174 Merrill Lynch, Pierce, Fenner & Smith, Inc., 43 S.E.C. 933, 935 (1968).

175 *Id.*

176 *Id.*

177 *Id.*

178 *Id.* For a more detailed description of the events, the identities of individual tippees—which included leading hedge funds, investment partnerships, and mutual fund advisors—and the amounts of give-up payments, see Investors Mgmt. Co., Hearing Examiner's Initial Decision, 1970 SEC LEXIS 3042 (June 26, 1970). *See also* City Assocs., Exchange Act Release No. 8509, Investment Advisors Act Release No. 242, 1969 SEC LEXIS 228 (Jan. 31, 1969) (the SEC accepting an offer of settlement of another institutional investor tipped by Merrill Lynch about the financial state of Douglas Aircraft in exchange for give-up payments).

179 Terry Robards, *S.E.C. Accusation Jars Wall Street*, N.Y. TIMES, Aug. 29, 1968, at 53.

180 *Investment Concerns Review Procedures to Avoid Possible Conflicts of Interest*, *supra* note 105.

181 *See supra* note 110.

182 MARVIN L. SALTZMAN, BROKER COMPLIANCE WITH RULE 10B-5 OR AVOIDING ILLICIT COMMUNICATIONS 23 (1970).

As the facts of the *Merrill Lynch* decision were not related to board representation of financial institutions,[183] the regulators endorsed a new prophylactic device: "In determining to accept the offers of settlement . . . [the SEC had] taken into consideration [Merrill Lynch's] undertaking to adopt, implement, and ensure compliance with, revised procedures to provide more effective protection against disclosure of confidential information . . . ."[184] Merrill Lynch's Statement of Policy put strict limitations on internal flows of "[m]aterial information obtained from a corporation by the Underwriting Division in connection with the consideration or negotiation of a public or private offering and which has not been disclosed by the corporation to the investing public."[185] The Policy further mandated that such information was "to be used by the recipient solely for the purpose of carrying out [his] responsibilities in connection with private offering . . . and not be disclosed orally or in writing for any other purpose."[186] This was the first formal Chinese Wall in the securities industry pushed for by the regulatory agency.[187] Furthermore, a subsequent SEC enforcement action against institutional investors that obtained confidential information from Merrill Lynch advanced the development of insider trading regulation by clarifying the extent of tippee liability.[188]

Another illustration of SEC-endorsed compliance policies is the controversy pertaining to Investors Diversified Services, an investment advisor to mutual funds. In 1970, the Chief Operating Officer of the NYSE-listed Lum's disclosed to an institutional salesperson at Lehman Brothers that the updated earnings projections indicated a sharp downward revision compared to the prior estimates.[189] In turn, the institutional salesperson con-

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183 It was the policy of Merrill Lynch not to hold corporate directorships. *See* Ed Cony, *Some Stir Criticism by Sitting on Boards of Traded Companies*, WALL ST. J., Sept. 19, 1962, at 1. In the words of Michael McCarthy, the Chairman of Merrill Lynch, "We felt a conflict of interest could arise, so we made it a general policy not to serve as directors way back in 1945." *Id.* But this, of course, was not enough to prevent information leakages.

184 Merrill Lynch, Pierce, Fenner & Smith, Inc., 43 S.E.C. 933, 938 (1968).

185 MCVEA, *supra* note 2, App. II at 257.

186 *Id.*

187 The *Merrill Lynch* decision is often considered as the impetus for the creation of Chinese Walls within financial intermediaries. *See* MCVEA, *supra* note 2, at 124 ("The idea of [informational] segregation was first mooted in the Merrill Lynch Statement of Policy . . . ."); Poser, *supra* note 2, at 127 ("The idea of erecting a Chinese Wall was first suggested by the SEC in 1968 as a way of preventing insider-trading abuses . . . ."). On the other hand, various internal information barriers, such as abstaining from internal discussions or not issuing any trading recommendations in securities of companies where directorships were held, were employed by securities firms prior to this regulatory action. *See* SPECIAL STUDY, *supra* note 40, pt. 1, at 434, 436. Yet, most likely, such practices were uncommon, largely informal, and rarely enforced.

188 Investors Mgmt. Co., 44 S.E.C. 633 (1971). *See also* Comment, Investors Management Company *and Rule 10b-5 - The Tippee at Bay*, 72 COLUM. L. REV. 545 (1972).

189 SEC v. Lum's, Inc., 365 F. Supp. 1046, 1050 (S.D.N.Y. 1973). The court noted that the institutional salesperson at Lehman Brothers provided "valuable advice about rendering [Lum's] more attrac-

veyed that information to IDS, which liquidated its clients' entire position in the common stock of Lum's.[190] IDS settled the matter with the SEC in exchange for implementing a policy that put restrictions on transmitting inside information by IDS employees to investment companies advised by IDS.[191] The policy contained a clear indication that one of the primary reasons for its adoption were the practices reinforced by the fixed brokerage commissions regime: "[I]t is the policy of IDS not to allocate brokerage in consideration of the furnishing of material inside information, and IDS employees, in recommending the allocation of brokerage to broker-dealers, should not give consideration to any material inside information furnished by any broker-dealer."[192] Essentially, that policy created a Chinese Wall within a mutual fund complex. Kevin Thomas Duffy, the SEC's Regional Administrator in New York, stated that the IDS settlement was a notice to institutional investors to adopt similar policies on the use of inside information.[193]

A similar SEC enforcement action involved the 1970 activities of W.E. Hutton & Co., a broker-dealer.[194] The vice president of the NYSE-listed Faberge informed a securities analyst at Hutton that the company had sustained a substantial loss and would be revising its earnings estimate.[195] In response, that securities analyst alerted Hutton's branch offices, and one branch manger contacted "a financial analyst at a certain bank . . . and recommended the sale of [Faberge] stock. A portfolio manager of the bank ordered the sale of 3,000 shares . . . . The order was given to Hutton and was executed . . . prior to the public release of the earnings information."[196] In other words, the implicit bargain was to exchange brokerage commissions for inside information. Furthermore, Hutton's securities analyst tipped Investors Diversified Services which made transactions on behalf of

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tive to the investment community" and was even invited to join the board of directors of Lum's. *Id.* at 1052. While Lehman Brothers did not execute that particular transaction, *id.* at 1055, it probably would have been compensated via some other arrangement.

190 *Id.* at 1050. A similar situation probably had occurred in 1969, when IDS, along with other institutional investors, was thought to be tipped confidential information about the AMEX-listed Four Seasons Nursing Center of America by Walston & Co., a brokerage firm serving as the issuer's principal investment banker and underwriter. Les Gapay, *Exchange Records Imply Walston Group Profited by Inside Information*, WALL ST. J., Sept. 12, 1972, at 1.

191 SEC v. Lum's, Inc., 70 Civ. 5280 (HRT), 1972 U.S. Dist. LEXIS 11216, at *3-7 (S.D.N.Y. Nov. 9, 1972).

192 *Id.* at *5.

193 Terry Robards, *S.E.C. Tightens Control Over Inside Information*, N.Y. TIMES, Nov. 10, 1972, at 53. Furthermore, Lehman Brothers escaped liability—despite the SEC's efforts—because of its "compliance department, staffed by several competent and experienced attorneys, whose responsibility it was to maintain a comprehensive supervisory system for the entire organization." *Lum's*, 365 F. Supp. at 1064.

194 Certain Trading in the Common Stock of Faberge, Inc., 45 S.E.C. 249 (1973).

195 *Id.* at 251.

196 *Id.* at 252.

its client mutual funds through a different broker.[197] The Commission made a broader reference to complex kickbacks in exchange for confidential information: "[A] practice has developed of [broker-dealer] firms receiving compensation for inside information in subsequent unrelated transactions. Indeed, the fact that the recipient may not effect any transaction after receiving inside information does not absolve the tipper of responsibility under the Rule [10b-5]."[198] Although the practice of give-ups had already been abolished, Hutton presumably would still have been compensated by IDS via some other arrangement. The SEC, in line with its prior emphasis on internal information barriers, went no further than censuring Hutton and other broker-dealers and investment advisors involved "in light of the parties' undertaking to install and enforce procedures designed to detect and prevent abuses of inside information."[199]

Thus, practices of financial intermediaries reinforced by the existence of the fixed brokerage commissions regime led to the SEC's preference for internal information barriers in order to restrict the flow of confidential information obtained through privileged access to issuers. The regulators also recommended the adoption of Chinese Walls to financial intermediaries other than broker-dealers.[200]

C. *Interaction of Various Factors in the SEC's Regulatory Design of Securities Markets*

The SEC's attempts to control the consequences of the fixed brokerage commissions regime closely interacted with—and, in some sense, led to—its activism in regulating information flows in the securities industry. The Commission was also concerned about such interrelated issues as directorships held by financial institutions and practices of institutional investors. In fact, almost every early significant case adjudicated or litigated by the SEC pertaining to insider trading or dealing with the creation of Chinese Walls[201]—which targeted transactions that took place on impersonal securi-

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197 *Id.* at 251.

198 *Id.* at 257.

199 *Id.* at 258. For an almost identical enforcement action of the SEC involving the transmission of the same inside information from Faberge to two broker-dealers that used it for the benefit of their clients, see Reynolds & Co., Exchange Act Release No. 10,835, Investment Advisors Act Release No. 416, 1974 SEC LEXIS 1197 (May 31, 1974). The regulatory agency also accepted the settlements on the basis that the broker-dealers would "maintain effective procedures to protect against improper action being taken on the basis of material nonpublic corporate information." *Id.* at *2.

200 *See* G. Bradford Cook, *The SEC and Banks*, 89 BANKING L.J. 499 (1972) (the SEC General Counsel recommending to commercial banks to establish internal information barriers on the basis of the Merrill Lynch Policy).

201 The role of private litigation in the creation of insider trading regulation had been minimal: "[P]rivate actions play[ed] a trivial role in regulating insider trading; the Commission ha[d] a virtual

ties markets and lacked such obviously questionable practices as fraudulent inducements to transact, misrepresentation, majority control, or market manipulation[202]—involved the brokerage industry or the closely related issue of the representation of financial institutions on corporate boards.[203] As SEC Chairman G. Bradford Cook remarked, "[T]he movement of inside information in the cases we have seen generally involves its delivery to institutions or their agents for various considerations."[204]

For some time, the SEC tried to micromanage the brokerage commissions rate structure, influenced by the idea that price controls benefited securities markets,[205] although the regulatory agency "had never articulated an economic analysis that justified why fixed commission rates should exist in the first place nor gathered sufficient empirical data to prepare such an analysis."[206] Even when the viability of the fixed brokerage commissions regime was seriously shaken, the SEC tried to combat rebative practices, seen as discriminatory and unfair, and conflicts of interest created by such practices without paying too much attention to their underlying cause. As a result, the Commission found itself entangled in many other problems, such as reciprocal practices of the brokerage industry, exchange membership of institutional investors, and antitrust issues, clashing with legislators, other government agencies, and interest groups. The regulatory agency even went so far as to ask the U.S. Congress to provide antitrust immunity to securities exchanges in the areas under the SEC's control.[207] This was a

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monopoly. The private actions actually brought were largely parasitic—a condition found nowhere else in federal securities regulation." Dooley, *supra* note 23, at 16-17 (footnote omitted).

202 For an analysis of earlier cases and SEC enforcement actions involving such questionable practices that were connected to the use of inside information and, in some sense, laid the foundation for a more general prohibition of insider trading on impersonal securities markets, see LOUIS LOSS, SECURITIES REGULATION 823-44 (1st ed. 1951).

203 For some outliers that, in the author's opinion, had rather limited influence in creating and shaping the insider trading doctrine and, typically, came later, see SEC v. Sorg Printing Co., No. 74 Civ. 3634, 1975 U.S. Dist. LEXIS 13121 (Mar. 28, 1975) (employees of a financial printing company inferring the identities of targets in tender offers and then trading on this information); SEC v. Shapiro, 349 F. Supp. 46 (S.D.N.Y. 1972) (partners in a mergers and acquisitions consulting firm and their tippees trading on confidential information about merger negotiations); Litigation Release No. 6589, 1974 SEC LEXIS 2291 (Nov. 18, 1974) (employees of a bidder acquiring stock in a target on the basis of confidential information); SEC v. Standard Sec. Life Ins. Co., Litigation Release No. 2336, 1974 SEC LEXIS 2336 (Nov. 12, 1974) (a corporate director tipping his associates about an upcoming acquisition proposal); Litigation Release No. 3225, 1965 SEC LEXIS 929 (May 19, 1965) (a corporate director trading on the upcoming announcement of a merger involving his company).

204 G. Bradford Cook, Chairman, Sec. and Exch. Comm'n, Address Before the Society of American Business Writers: The Big Enforcement Cases: Their Impact on Market Confidence 15 (May 9, 1973), http://www.sec.gov/news/speech/1973/050973cook.pdf (last visited May 27, 2008).

205 *See supra* notes 14-18 and accompanying text.

206 SELIGMAN, *supra* note 10, at 403.

207 SEC Chairman Manuel F. Cohen argued that "in matters like off-board trading by exchange members and commission rates . . . [the SEC] is in the best position to comprehend and reconcile the diverse factors and considerations" and asked the U.S. Congress "to provide antitrust immunity in areas

prelude to the SEC's "turf war" with the U.S. Department of Justice over intertwined issues of the fixed brokerage commissions regime and the exclusion of institutional investors from securities exchanges.[208]

The securities exchanges were certainly interested in protecting their cartel through public enforcement. As Professor William F. Baxter reflected on the essence of the controversy, "The obvious legal vulnerability of [the fixed brokerage commissions regime] if conducted entirely by private practice has led the NYSE to seek SEC participation in the cartel decisionmaking process to afford a tenable legal shelter [and] to regulate the NYSE-member-firm complex as if the complex were a public utility."[209] Certainly, the SEC participated in the enforcement of the fixed brokerage commissions regime even before the 1960s.[210] At the same time, the SEC was not simply an enforcement arm of the brokerage cartel,[211] and it was determined to be directly involved in ratemaking rather than simply consenting to the Exchange's proposals. The regulatory agency definitely had a mind of its own, as the NYSE-SEC tug of war regarding floor trading in the 1960s demonstrated.[212]

The SEC's initial interest in insider trading regulation in the *Cady, Roberts* affair was in the use of information obtained by securities firms via their directorships and, more specifically, the connection of Cady, Roberts

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subject to [the SEC's] review." Letter from Manuel F. Cohen, Chairman, Sec. and Exch. Comm'n, to Willis Robertson, Chairman, S. Comm. on Banking and Currency (July 30, 1965), *reprinted in* 111 CONG. REC. 19022 (Aug. 2, 1965).

208 SEC Chairman G. Bradford Cook later recalled his "discussions with the head of the anti-trust division on the basis that we would handle [the issues of brokerage commissions and institutional membership], and we didn't need their interference." G. Bradford Cook, Thirty Years of Change?, Securities and Exchange Commission Historical Society Roundtable of SEC Chairmen 3 (June 2, 2004), http://www.sechistorical.org/collection/oralHistories/roundtables/SECChairmen/chairmenPapersCook.pdf (last visited May 27, 2008). *See also* Adoption of Rule 19b-2, Concerning the Utilization of Membership on National Securities Exchanges for Public Purposes, Exchange Act Release No. 9950, 1973 SEC LEXIS 2104 (Jan. 16, 1973); Cook, *supra*, at 3 ("[SEC] Rule 19b-2, the result of Harvey Pitt's ingenuity . . . eliminate[d] the kind of institutional membership which merely gave institutions the ability to use the exchanges without paying commissions.").

209 Baxter, *supra* note 51, at 709-10. *See also* George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 6 (1971) ("[Industries] often want price controls administered by a body with coercive power. If the number of firms in the regulated industry is even moderately large, price discrimination will be difficult to maintain in the absence of public support.").

210 *See* Managed Funds Inc., 39 S.E.C. 313, 318-20 (1959) (attacking the rebative practice of nominally employing registered representatives in exchange for commission business).

211 *Compare* SELIGMAN, *supra* note 10, at xix (generally rejecting the theory that "the SEC has been a 'captive' of the industries it regulates"), *with* Jarrell, *supra* note 36, at 273 (summarizing academic research as saying that "the NYSE was a [brokerage commissions] cartel, and the SEC its enforcement arm").

212 *See* CARY, *supra* note 137, at 17; SELIGMAN, *supra* note 10, at 324-35; *see also* SPECIAL STUDY, *supra* note 40, pt. 2, at 241 ("Floor trading in its present form is a vestige of the former 'private club' character of stock exchanges and should not be permitted to continue on the NYSE or Amex.").

& Co. to a financial raider.[213] While the broker's use of inside information in *Cady, Roberts* can be traced to the competitive pressures created by price controls to supply preferred customers, such as institutional investors, with inside information, there is little indication that, at that point, either the SEC or the NYSE was especially concerned about insider trading as a rebative practice.[214] On the other hand, the subsequent enforcement efforts by the SEC against insider trading were an integral part of its grip on the fixed brokerage commissions regime.[215] Furthermore, there are indications that the SEC initially became interested in abolishing the give-up system because it interfered with the fixed brokerage commissions regime and introduced numerous conflicts of interest, not because give-ups provided a payment system for an organized market for inside information.[216]

Yet another important factor in the emergence of the regulation of information flows in securities markets was the SEC's concern over the growing power of institutional investors and their investment practices, including the use of inside information in exchange for brokerage business.[217] Furthermore, contrary to economic analysis, the SEC had strong reservations about the role of discounts extended to large clients, such as institutional investors, in the fixed brokerage commissions regime: "So long as [the current rate structure] exists, large investors should not, by virtue of their economic power and size, be entitled to obtain rebates of commissions not available to other investors."[218] This stance resonated with a more general concern about institutions' privileged access to inside information. As SEC Chairman Manuel F. Cohen remarked, "[I]f [institutional investors] are able to obtain from the issuer, because of their economic power or for other reasons, information that is not available to those with whom they are trading in the public market, it raises serious questions of law and propriety."[219] Consistent with this policy, several SEC enforcement actions targeted issuers for selective disclosure of inside information to institutional investors, mostly via broker-dealers but sometimes directly.[220]

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213 *See supra* notes 140-144 and accompanying text.

214 *See supra* Sections II.A-C.

215 *See supra* Sections III.A-B.

216 *See supra* notes 107-110 and accompanying text.

217 It is likely that the institutionalization of securities markets alone would have strengthened the functioning of a market for inside information involving brokers and large investors, but the existence of the fixed brokerage commissions regime probably was the strongest impetus leading in that direction.

218 Future Structure of Securities Markets, Exchange Act Release (unnumbered), 37 Fed. Reg. 5286, 5291 (Feb. 2, 1972).

219 Manuel F. Cohen, Chairman, Sec. and Exch. Comm'n, Address Before the American Management Association 7 (Nov. 16, 1966), http://www.sec.gov/news/speech/1966/111666cohen.pdf (last visited May 27, 2008). *See also id.* at 8 ("The power of institutions to obtain information is simply one manifestation of their generalized power over the companies in which they invest.").

220 *See, e.g.*, SEC v. Liggett & Myers, Inc., 73 Civil 2796, 1973 U.S. Dist. LEXIS 11401 (S.D.N.Y. Oct. 24, 1973); SEC v. Lum's, Inc., 365 F. Supp. 1046, 1050 (S.D.N.Y. 1973); SEC v. Glen Alden

Another regulatory direction pursued by the SEC in this era was the removal of financial institutions from corporate boards, a move that threatened one of the brokers' main channels of supplying their customers with inside information. The rhetoric condemning the "infiltration of boards of directors of issuers"[221]—the old leitmotif of the Pujo and Pecora Hearings—still had its influence. It is quite likely that the SEC was motivated by the fact that the "centralization of important directorships [involved]: (1) maximum access to inside information, (2) maximum power to use inside information in market activities, and (3) numerous incompatible fiduciary relationships."[222] The regulatory agency in fact participated in the litigation of *Blau v. Lehman*,[223] the case that marked an unsuccessful attempt to classify a brokerage firm as a statutory insider under Section 16(b) of the Securities Exchange Act of 1934 because of a directorship held by one of its partners.[224] Indeed, the contemporary commentators noted that "the SEC proceeded against Cady, Roberts and Co. with principles allied to its argument in the *Blau* case."[225]

An SEC study endorsed the legislative override of *Blau v. Lehman*,[226] but the Commission dropped that proposal in order to salvage the rest of its comprehensive package revising the Securities Acts.[227] Nonetheless, the SEC largely achieved that goal via its enforcement program. Indeed, one commentator compared the exodus of brokers from corporate boards in the 1960s—largely because of concerns about insider trading liability—to the

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Corp., 68 Civil Action No. 3203, 1968 U.S. Dist. LEXIS 12081 (S.D.N.Y. Aug. 7, 1968); SEC v. Celanese Corp. (S.D.N.Y.), Civil Action No. 74-3453, Litigation Release No. 6440, 1974 SEC LEXIS 2963 (July 18, 1974); Avis. Inc., et al. (S.D.N.Y.), Litigation Release No. 10,672, 1974 SEC LEXIS 3430 (Mar. 7, 1974); Litigation Release No. 5918, 1973 SEC LEXIS 2861 (June 4, 1973). Only Celanese Corp. was an issuer not listed on the NYSE.

221 United States v. Morgan, 118 F. Supp. 621, 699 (1953).

222 James E. Crilly, III, Note, *Insider Status in Legal Fiction and Financial Fact - A Proposed Revision to Section 16(b)*, 50 CAL. L. REV. 500, 504-05 (1962); *see also* Michael C. Jensen, *Inside Information on Stocks Flows Steadily to the Rich*, N.Y. TIMES, May 14, 1973, at 45 ("Another practice that is under attack is the role played by officers or partners of brokerage houses who serve as directors of big corporations.").

223 173 F. Supp. 590 (S.D.N.Y. 1959), *aff'd*, 286 F.2d 786 (2d Cir. 1961), *aff'd*, 368 U.S. 403 (1962); *see also* Rattner v. Lehman, 98 F. Supp. 1009 (S.D.N.Y. 1951), *aff'd*, 193 F.2d 564 (2d Cir. 1952) (an almost identical factual situation with the same legal outcome).

224 In its amicus curiae brief, the regulatory agency took the position that "it cannot be assumed in the light of the text and legislative history of Section 16(b) that a firm, which is also engaged in the business of trading securities, will ignore in its trading activities the inside information obtained from partner-directors." Alan R. Johnson & Lawrence A. Coles, Jr., *Wall Street Trading Firms as Securities "Insiders,"* 12 CLEV.-MARSHALL L. REV. 369, 377 (1963) (quoting the SEC's brief).

225 *Id.* at 379.

226 SPECIAL STUDY, *supra* note 40, pt. 3, at 64.

227 *See* Letter from William L. Cary, Chairman, Sec. and Exch. Comm'n, to Harley O. Staggers, Chairman, Subcomm. on Commerce and Fin. of the H. Comm. on Interstate and Foreign Commerce (Jan. 30, 1964), *reprinted in Investor Protection: Hearings Before a Subcomm. of the H. Comm. on Interstate and Foreign Commerce on H.R. 6789, H.R. 6793, S. 1642* pt. 2, at 1201(1963-64).

events of the Pujo Hearings that produced mass resignations of corporate directorships by the J.P. Morgan & Co. partners.[228] Even the seemingly unrelated *SEC v. Texas Gulf Sulphur Co.*,[229] another major landmark of insider trading jurisprudence, touched on the concern about board seats held by financial institutions.[230] One of the defendants, Thomas S. Lamont, was a director of both Texas Gulf Sulphur ("TGS") and Morgan Guarantee Trust Co., the successor entity to J.P. Morgan & Co.[231] In a fact pattern very similar to the *Cady, Roberts* affair,[232] Lamont alerted Morgan Guarantee about some important corporate developments, and the banking house purchased 10,000 TGS shares on behalf of its institutional clients before the news appeared on the Dow Jones ticker tape.[233]

It should come as no surprise that insider trading regulation emerged to restrict practices of broker-dealers, an industry very familiar to the SEC.[234] Initially, this regulatory policy had its primary effect on the brokerage industry—especially on its dealings with institutional investors and the

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228 MARTIN MAYER, CONFLICTS OF INTEREST: BROKER-DEALER FIRMS 39 (1975). For sources describing the resignations of some of their corporate directorships by the J.P. Morgan & Co. partners in 1914, see VINCENT P. CAROSSO, INVESTMENT BANKING IN AMERICA: A HISTORY 179-80 (1970); RON CHERNOW, THE HOUSE OF MORGAN: AN AMERICAN BANKING DYNASTY AND THE RISE OF MODERN FINANCE 180-81 (1990). Still, as of 1933, J.P. Morgan & Co.'s board representation was still very substantial. *See Pecora Hearings*, *supra* note 25, pt. 2, at 904-46.

229 258 F. Supp. 262 (S.D.N.Y. 1966), *modified*, 401 F.2d 833 (2d Cir. 1968) (en banc).

230 Of course, *Texas Gulf Sulphur* was a "big bang" case that involved various aspects of insider trading, including a corporate governance dimension. *See generally* KENNETH G. PATRICK, PERPETUAL JEOPARDY: THE TEXAS GULF SULPHUR AFFAIR: A CHRONICLE OF ACHIEVEMENT AND MISADVENTURE (1972).

231 Lamont continued the tradition of the Morgan representation on the board of directors of Texas Gulf Sulphur. In the past, one of the TGS directors was George Whitney—who was quizzed by Ferdinand Pecora about sharing inside information acquired through his directorships within the Morgan partnership. *Pecora Hearings*, *supra* note 25, pt. 1, at 205, 207. Furthermore, Lamont was probably the most visible defendant in the TGS trial: "The publicity value of his golden name was such that it dominated a front-page headline in the [*New York*] *Times* . . . ." CHERNOW, *supra* note 228, at 565.

232 It should be noted that Morgan Guarantee Trust Co. was not a NYSE member. E-mail from Janet Linde, Archivist, NYSE Euronext, to author (Feb. 9, 2007, 12:25:13 EST) (on file with author).

233 *Texas Gulf Sulphur*, 258 F. Supp. at 273-75. Nevertheless, the district court did not hold Lamont liable because his contact with Morgan Guarantee occurred after an announcement at a special press conference. *Id.* at 289-90. Lamont died before the Second Circuit revised the holding of the district court, expanding the extent of insider trading liability. *Texas Gulf Sulphur*, 401 F.2d at 842 n.6, 864.

234 In fact, one commentator noted that, for the regulatory agency, securities market professionals have been more attractive prosecution targets for insider trading violations than corporate insiders, as the former category is "subject to direct SEC regulation and thus can be made the subject of SEC administrative disciplinary actions." MICHAEL P. DOOLEY, FUNDAMENTALS OF CORPORATION LAW 832 (1995). Even *Dirks v. SEC*, 681 F.2d 824 (D.C. Cir. 1982), *rev'd*, 463 U.S. 646 (1983), yet another landmark of insider trading jurisprudence, involved an employee of a broker-dealer who used for his clients valuable information "non-officially" obtained in March 1973 from a corporate insider of the NYSE-traded Equity Funding. In fact, the analyst was promised brokerage commissions for his firm in exchange for that information. *Dirks*, 463 U.S. at 649 n.2.

creation of internal information barriers. As one commentator noted, the outcome of *Texas Gulf Sulphur* in the Second Circuit and the announcement of the SEC's enforcement action against Merrill Lynch, both occurring in August 1968, "touched off an uproar in the brokerage industry [and created the fear that] the broker would be restricted to doing little more than selling stock certificates."[235] The SEC also aimed to transform the state of securities research, largely handled by brokerage firms at that time,[236] in order to confine its scope to aggregating various pieces of public and non-material information rather than allowing securities market professionals to take advantage of specific information obtained via privileged access to issuers. The regulatory agency had signaled its preference for the use of the "perceptive analysis of generally known facts,"[237] "information which is obtained by general observation or analysis,"[238] and "mosaic of general information, some of which is public and some of which isn't."[239]

IV. EVIDENCE FROM THE FIXED BROKERAGE COMMISSIONS REGIMES IN THE UNITED KINGDOM AND JAPAN

This section examines the evolution of the fixed brokerage commissions regimes in the United Kingdom and Japan and maintains that such price controls strongly influenced insider trading practices and the emergence of the regulation of information flows in those countries. Section IV.A makes this argument in relation to the United Kingdom. Section IV.B makes the same argument in relation to Japan. Section IV.C concludes that the experiences of the United Kingdom and Japan with respect to their fixed brokerage commissions regimes were quite similar to the experiences of the United States.

A. *United Kingdom*

Until the early twentieth century, the London Stock Exchange ("LSE"), the leading national securities market, had no minimum rates schedule. As noted by a leading historian of the LSE, brokerage firms used different methods of charging for their services, "ranging from an annual fee from major customers, like banks, to a straight commission on each

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235 Green, *supra* note 98.

236 *See* John H. Allen, *Brokers Hire More Analysts, See Growing Impact on the Market*, WALL ST. J., Feb. 23, 1961, at 1 (noting that "[a]nalysts work chiefly for brokers").

237 Cady, Roberts & Co., 40 S.E.C. 907, 915 (1961).

238 Investors Mgmt. Co., 44 S.E.C. 633, 641 n.18 (1971).

239 Loomis, *supra* note 97, at 25.

transaction from small investors."[240] The LSE introduced mandatory minimum charges in 1912 in order to protect its single-capacity system, the historic distinction between brokers effecting transactions for their customers on an agency basis and jobbers making markets in securities by simultaneously buying from and selling to brokers.[241] In turn, the single-capacity system was necessary to prevent non-members from having access to the LSE's floor without paying ordinary charges and hence to protect members' profits.[242]

The increasing institutionalization of securities markets in the United Kingdom[243] strained the LSE's fixed brokerage commissions regime. Even though the LSE was more flexible with allowing discounts to large investors within its rate structure in comparison with the NYSE's approach,[244] institutional investors pushed for negotiable brokerage commissions and even launched their own trading network in an attempt to force the LSE to abandon price controls.[245] Furthermore, institutions "were in the position to expect, if not demand, some additional services for the income they con-

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240 RANALD C. MICHIE, THE LONDON STOCK EXCHANGE: A HISTORY 41 (1999). On the other hand, calls to introduce minimum brokerage charges were heard as early as 1813. *Id.*

241 For sources describing the nineteenth century origins of the distinction between these two basic types of LSE members, the Exchange's attempts to draw boundaries between these two groups, and a possible anticompetitive motivation for this distinction, see MICHIE, *supra* note 240, at 113-14; E. VICTOR MORGAN & W. A. THOMAS, STOCK EXCHANGE: ITS HISTORY AND FUNCTIONS 145-47 (1962). The single-capacity system was also perceived as a means of investor protection eliminating conflicts of interest: "Through the commitment to single capacity any client of a broker could be certain that both the price obtained was prevailing in the market and the advice given was impartial." MICHIE, *supra* note 240, at 494.

242 *See* R. C. MICHIE, THE LONDON AND NEW YORK STOCK EXCHANGES, 1850-1914, at 22 (1987) ("The restoration of single capacity [adopted in 1908 and implemented in 1909] was . . . designed mainly to restrict shunting between London and the provincial exchanges . . . . However, by simple device of nominally passing provincial business thorough co-operative brokers at minimal commission rates, this attempt to limit shunting was quickly circumvented."). For sources further describing the introduction of the fixed brokerage commissions regime on the London Stock Exchange and its significance as a means to prevent "shunting," see 2 DAVID KYNASTON, THE CITY OF LONDON 434-35, 478-82, 525-28, 546-48 (1994-2001); W. A. THOMAS, THE PROVINCIAL STOCK EXCHANGES 90, 201-05 (1973).

243 *See* HENRY LAURENCE, MONEY RULES: THE NEW POLITICS OF FINANCE IN BRITAIN AND JAPAN 75 (2001) ("The most striking trends in the postwar history of the LSE were the declining importance of private investors and the concurrent increase in prominence of institutional investors.").

244 The LSE permitted discounts for short-term trading in the same security, reinvestments in other securities for the same account, and large transactions more generally, as well as sharing brokerage commissions with non-members. Robert William Doede, The Monopoly Power of the New York Stock Exchange 89-90 (June 1967) (Ph.D. dissertation, the University of Chicago), *reprinted in Stock Exchange Commission Rates: Hearings on S. 3169 Before the Subcomm. on Securities of the S. Comm. on Banking, Housing and Urban Affairs*, 92d Cong. 496-97 (1972).

245 LAURENCE, *supra* note 243, at 75-76. It should be noted that, in the pre-1912 era of negotiable commissions, restrictions "which prevented banks and other financial institutions [from] becoming members, was of little practical importance when large customers could get their business transacted at minimal cost." MICHIE, *supra* note 242, at 258.

tributed to broking concerns."[246] One commentator remarked that competition among brokers, especially for the business of institutional investors, "led to the provision of ancillary services (e.g., research) at below cost or free of charges altogether."[247] Another commentator pointed out that "institutional clients who were prevented by the fixed commission rules from negotiating cut-price dealing costs were consoled in other ways [such as free research and portfolio valuation]."[248]

Not surprisingly, LSE brokerage firms provided their clients with inside information, and, according to one observer, "giving or taking an insider's tip was a perk of the stockbroker's job, and that doing someone a favor by 'tipping them the wink' was no more undesirable than giving a client a bottle of port at Christmas."[249] Furthermore, if brokerage firms wanted "to be thought of as experts in a particular sector, they [had] to be in close touch with the directors of its companies."[250] Indeed, that era was described by an LSE insider as that of traders going "to the broker who had the best information, and that information would be inside."[251] Thus, providing inside information constituted an important dimension of non-price competition, and, most likely, this "extra" was exploited heavily in dealings with institutional investors. The fact that LSE brokerage firms held directorships in listed companies[252] gave brokers the ability to supply their clients with inside information, given the lax self-regulatory enforcement of restrictions on insider trading.[253] Such practices certainly had an effect on the emergence of a comprehensive system of insider trading regulation in the 1980s.[254]

Faced with pressures from institutional investors, foreign competition, and government threats to bring a lawsuit for restrictive business practices, the LSE consented to abandoning its fixed brokerage commissions regime

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246 W. A. THOMAS, THE BIG BANG 28 (1986).

247 MAXIMILIAN HALL, THE CITY REVOLUTION: CAUSES AND CONSEQUENCES 2 (1987).

248 MARGARET REID, ALL-CHANGE IN THE CITY: THE REVOLUTION IN BRITAIN'S FINANCIAL SECTOR 39 (1988).

249 LAURENCE, *supra* note 243, at 99.

250 HAMISH MCRAE & FRANCES CAIRNCROSS, CAPITAL CITY: LONDON AS A FINANCIAL CENTRE 114 (1973). *See also* RICHARD SPIEGELBERG, THE CITY: POWER WITHOUT ACCOUNTABILITY 17 (1973) ("[T]he City with its closely knit information network is designed (unintentionally, albeit) to generate 'inside' information.").

251 GEORGE P. GILLIGAN, REGULATING THE FINANCIAL SERVICES SECTOR 171 (1999) (quoting Mike Feltham, Head of the Insider Dealing Group Committee, London Stock Exchange).

252 BARRY A. K. RIDER & LEIGH FFRENCH, THE REGULATION OF INSIDER TRADING 169 (1979).

253 *See id.* at 160-74 (describing a rather ineffective system of self-regulation of insider trading practices by the financial community in London before the emergence of public regulation).

254 For an overview of the development of insider trading regulation in the 1980s, see JAMES J. FISHMAN, THE TRANSFORMATION OF THREADNEEDLE STREET: THE DEREGULATION AND REREGULATION OF BRITAIN'S FINANCIAL SERVICES 195-214 (1993).

in 1983.[255] The transition to negotiable brokerage commissions occurred on October 27, 1986, the day known as the "Big Bang."[256] In anticipation of this transition, the LSE community realized that the single-capacity system was doomed. The so-called "link" argument maintained that:

> [W]ere the fixed commissions to go, the brokers, with their revenue squeezed by competition, would seek an increasing dealing role for themselves in quest of compensating profits. Existing pressures for brokers effectively to make "matched bargains" between buyers and sellers among their clients, and to hold stock for trading, would be immeasurably, irresistibly increased. But, if this development occurred, it would drain business from the jobbers who, in turn, would seek to trade direct with the public.[257]

Sir Nicholas Goodison, the Chairman of the LSE Council, also proclaimed that "[t]he abolition of [fixed] commission[s] may prove incompatible with the present system of separate capacity."[258] Yet, as Professor Henry Laurence observed, institutional investors "did not need the protection of single capacity. They had the resources to determine if they were being cheated and the market power to retaliate."[259]

The Big Bang's abolition of the single-capacity system led to another concern from the standpoint of regulation: "The removal of minimum commissions . . . [would give] rise to pressure for the removal of the institutional demarcation, not just between principals and brokers, but also between banks and broker-dealers."[260] Commentators, including government officials, perceived this change as necessitating "a degree of institutional separation between functions—for example, Chinese Walls between investment management and dealing on own account."[261] Thus, the *removal* of fixed brokerage commissions reinforced the need for adopting Chinese Walls.[262] The use of such internal information barriers was in fact endorsed

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255 NORMAN S. POSER, INTERNATIONAL SECURITIES REGULATION: LONDON'S "BIG BANG" AND THE EUROPEAN SECURITIES MARKETS §§ 2.1.4-.5, at 24-27 (1991).

256 For the background information on the Big Bang and the numerous changes it brought for the national financial system, see REID, *supra* note 248; THOMAS, *supra* note 246; G. H. WEBB, THE BIGGER BANG: GROWTH OF A FINANCIAL REVOLUTION (1987).

257 REID, *supra* note 248, at 29. The re-articulation of the connection between the fixed brokerage commissions regime and the single-capacity system in 1979 is attributed to David LeRoy-Lewis, at that time, the chairman of Akroyd & Smithers, an LSE jobber firm. *Id.*

258 Philip Robinson, *Market Fears 'Savage' Competition After Abolition of Fixed Charges*, TIMES (London), July 30, 1983, at 11.

259 LAURENCE, *supra* note 243, at 75.

260 Deputy Governor, Bank of Eng., Changes in the Structure of Financial Markets: A View From London, Speech at the Euromoney Conference (Nov. 27, 1984), *in* 25 BANK ENG. Q. BULL. 75, 77 (1985).

261 *Id.* at 78.

262 Chinese Walls were used by financial intermediaries in the United Kingdom even before the Big Bang, partly because of the concern that brokerage firms might be using inside information obtained through privileged access to issuers, and the use of such internal information barriers was endorsed by the self-regulatory system. *See* Barry A. K. Rider, *Conflicts of Interest and the Chinese Wall*, *in* THE

in the Financial Services Act of 1986 and adopted by the securities industry.[263]

B. *Japan*

Similar to the pre-"Mayday" United States, Japan legislatively codified its fixed brokerage commissions regime, granting individual securities exchanges the authority to set binding brokerage commissions schedules.[264] A typical argument for the regime's existence was that "the reasonable commission rate is ensured because the exchange has a public character, and is under the general supervision of the Minister of Finance."[265] Compared to the pre-1969 NYSE, such rate schedules did have volume discounts. For instance, the rules of the Tokyo Stock Exchange, the leading national securities market, provided for discounts up to twenty percent for large orders.[266] The brokerage business was the main source of income for the securities industry, "with average of 40 to 50 per cent for the Big Four securities firms [Nomura, Nikko, Daiwa, and Yamaichi] in any one year and 75 to 85 per cent for the smaller Japanese houses."[267] Even otherwise free market-oriented non-Japanese securities firms—that managed, with great difficulties, to acquire seats on the Japanese securities exchanges—learned to enjoy the fruits of the fixed brokerage commissions regime: "Having paid the price and joined the club, they [were] content to rake in brokerage commissions and support the status quo."[268]

REGULATION OF THE BRITISH SECURITIES INDUSTRY 81, 90-92 (Barry A. K. Rider ed., 1979). On the other hand, there was a strong conflict between the securities industry's self-regulation and the competitive pressures of the fixed brokerage commissions regime, which is one of the main reasons why the restrictions on insider trading were not well enforced. An interesting fact is that, at some point, the LSE supported the idea of public regulation of insider trading but later reversed its position in favor of self-regulation. *Goodison's Gaffe*, ECONOMIST, Sept. 30, 1978, at 109.

263 Poser, *supra* note 2, at 92.

264 Securities and Exchange Law, Law No. 25 of 1948, arts. 130–31, *translated in* JAPAN SEC. RESEARCH INST., JAPANESE SECURITIES LAWS AND RELATING ORDERS 48 (1982).

265 JAPAN SEC. RESEARCH INST., SECURITIES MARKETS IN JAPAN 121 (1986 ed.).

266 JONATHAN ISAACS & TAKASHI EJIRI, JAPANESE SECURITIES MARKET 34 (1990).

267 *Id.*; *see also* SAMUEL L. HAYES, INVESTMENT BANKING: A TALE OF THREE CITIES 172 (1990) ("Japanese securities firms are more heavily dependent on brokerage commissions than are firms in New York and London.").

268 ARON VINER, INSIDE JAPANESE FINANCIAL MARKETS 47 (1988). In fact, the representatives of foreign securities firms met with the representatives of the ruling Liberal Democratic Party in 1991 in an attempt to slow down the process of brokerage rates deregulation. CHRISTOPHER WOOD, THE BUBBLE ECONOMY: THE JAPANESE ECONOMIC COLLAPSE 117 (1992).

The growth of institutional investing in Japanese securities markets[269] and the corresponding concern about excessive brokerage commissions[270] also led to rebative practices, "usually in the form of reciprocal arrangements for services [such as] the provision of free advice on mergers and acquisitions."[271] For some securities firms, another means of evading price controls was "to 'buy' corporate 'research' from institutional clients. The research purchased [was] not needed by the firms and may [have been] worthless; it function[ed] as a means of offsetting commission fees."[272] Indeed, the competitive pressures for obtaining brokerage business from institutional clients were high: "Tokyo is the last major stock market with fixed commissions [where] big institutional orders are hugely profitable for the brokers, so the temptation exists to court fund managers in any way they can."[273]

Another illustration of the practices created by price controls was a huge scandal that erupted in the summer of 1991, revealing that both the Big Four and smaller brokerage firms had been compensating their preferred customers—industrial corporations, banks, insurance companies, and other institutional investors, as well as well-connected individuals—for trading losses.[274] These kickbacks were certainly an implicit discount on the brokerage charges,[275] and, as stated by one commentator, "such compensation was a customary practice in the industry."[276] The suggestion that the loss-compensation scandal stemmed from the fixed brokerage commissions regime was offered by a representative of the Japanese Ministry of

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269 *See* LAURENCE, *supra* note 243, at 110-11 (describing the rise of actively-trading institutional investors, as opposed to the more traditional long-term- and cross-shareholding, in the 1980s and 1990s); Mitsuo Sato, *The Tokyo Equity Market: Its Structure and Policies*, *in* CAPITAL MARKETS AND FINANCIAL SERVICES IN JAPAN: REGULATION AND PRACTICE 40, 46 (1992) (noting the "'institutionalization' of equity investment").

270 *See* VINER, *supra* note 268, at 77 (noting that, in the 1980s, institutional investors forced the Tokyo Stock Exchange to reexamine its brokerage commissions schedule).

271 ISAACS & EJIRI, *supra* note 266, at 34.

272 VINER, *supra* note 268, at 76. This closely resembles one of the rebative practices of Frederic S. Mates. *See supra* note 156 and accompanying text.

273 Nancy Beth Jackson & Fingleton Eamonn, *So a Gamble Came Unstuck? Get an Ambulance Stock*, EUROMONEY, Mar. 1987, at 155, 156.

274 For a detailed analysis of the loss-compensation scandal and its background, see WOOD, *supra* note 268, at 117-28. For a list—probably incomplete—of the brokerage firms involved and the clients compensated for their trading losses, see *Combined List of Firms, Individuals Reimbursed for Stock Losses*, JAPAN TIMES, Aug. 2, 1991, at 4. The overall amount of kickbacks was estimated at about $1.5 billion. Yui Kimura & Thomas A. Pugel, *The Structure and Performance of the Japanese Securities Industry*, *in* RESTRUCTURING JAPAN'S FINANCIAL MARKETS 27, 48 (Ingo Walter & Takato Hiraki eds., 1993).

275 WOOD, *supra* note 268, at 127.

276 *Ministry Knew of Paybacks*, JAPAN TIMES, Aug. 24, 1991, at 1; *see also* MAXIMILIAN J. B. HALL, FINANCIAL REFORM IN JAPAN: CAUSES AND CONSEQUENCES 43 (1998) (stating that, despite the scandal, "the illegal compensation of favoured clients for trading losses [by brokers] persisted").

Finance,[277] the ruling Liberal-Democratic Party,[278] and SEC Chairman Richard Breeden.[279]

Just as in the United States and the United Kingdom, brokerage firms in Japan used inside information to attract business. As one commentator observed, "Brokers frequently, for example, offer special clients shares in companies that their inside information suggests are most likely to rise in price."[280] Another commentator noted that "the cultivation of close ties to sources of information in order to obtain advance notice of significant corporate developments has long been considered an important service offered by Japanese brokerage firms."[281] Furthermore, another observer commented that "[i]n Tokyo inside information tends to come more from brokers than from companies."[282] Given the weak self-regulatory restrictions on insider trading on the Tokyo Stock Exchange,[283] these practices were logical, and, perhaps, this laxity may be partially explained by the existence of price controls. Thus, Japanese brokerage firms played the role of distributional networks of information, and those activities did not carry much of a stigma.[284] On the other hand, one critic commented that the fixed brokerage commissions regime in Japan was one of the main reasons why "the lines between normal trading and illegal trading, such as insider trading and price manipulation, became blurred almost to the point of being indistinguishable."[285] The creation of a comprehensive insider trading prohibition in Japan in the 1980s[286] was certainly influenced by the extreme practices in the securities industry caused by price controls.

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277 *Official Hints at End of Fixed Commissions*, JAPAN TIMES, Aug. 24, 1991, at 9.

278 *LDP Proposes End to Control on Stock-Trading Commissions*, JAPAN TIMES, Aug. 10, 1991, at 9.

279 *TSE Remains Cautious on Fee Liberalization*, JAPAN TIMES, Aug. 22, 1991, at 9.

280 Leslie Helm, *Image Repair at Japanese Brokerages*, L.A. TIMES, July 30, 1991, at D1.

281 Larry Zoglin, *Insider Trading in Japan: A Challenge to the Integration of the Japanese Equity Market into the Global Securities Market*, 1987 COLUM. BUS. L. REV. 419, 421.

282 ANTHONY ROWLEY, ASIAN STOCKMARKETS: THE INSIDE STORY 43 (1987). But not all confidential information conveyed by brokers was intrinsic "inside" information about issuers; some of such information constituted an advance notice about manipulative activities by securities firms themselves: "[T]he advance information that a stock will be ramped is used as an asset in itself. Such market tips are given gratuitously [by securities firms] to those individuals the firm wishes to cultivate." VINER, *supra* note 268, at 97. *See also* Jackson & Eamonn, *supra* note 273 (describing how securities firms compensated preferred clients for trading losses via manipulated "ambulance stocks").

283 *See* Mark J. Happe, Comment, *Inside the Japanese Stock Market: An Assessment*, 5 AM. U. J. INT'L L. & POL'Y 87, 120-21 (1989).

284 *See* ROBERT ZIELINSKI & NIGEL HOLLOWAY, UNEQUAL EQUITIES: POWER AND RISK IN JAPAN'S STOCK MARKET 116 (1991) ("The privileged distribution of inside information has traditionally been respectable in Japan because it is seen as a way of lubricating corporate relationships.").

285 Naoki Tanaka, Op-Ed, *Face the Problem Squarely*, JAPAN TIMES, Aug. 1, 1991, at 24.

286 For a summary of the regulatory developments in the 1980s pertaining to insider trading, see KAZUMI OKAMURA & CHIEKO TAKESHITA, LAWS AND REGULATIONS RELATING TO INSIDER TRADING

There are indications that the use of inside information by their brokerage divisions forced Japanese securities firms to pay at least lip service to creating internal information barriers. The Securities and Exchange Advisory Committee, a consultative body attached to the Ministry of Finance, endorsed the use of Chinese Walls in 1988.[287] Securities firms themselves adopted such measures, probably motivated by the fear of direct regulation. On July 1, 1988 Nomura "divided its corporate finance division into an underwriting and advisory division and a brokerage division" in order to prevent information leakages,[288] and other Big Four securities firms utilized similar measures.[289] On February 3, 1989, the Ministry of Finance specifically ordered the securities industry not to solicit clients' orders by offering inside information,[290] reinforcing the role of such internal information barriers. All of these developments were heavily influenced by the competitive pressures created by price controls.

The twin forces of institutional investing and international competition[291] doomed the fixed brokerage commissions regime in Japan, although the rate of change was fairly slow. The Financial System Reform Bill of 1998, an omnibus statute overhauling the Japanese economy, provided for negotiable brokerage commissions, and the last major brokerage cartel ceased to exist when the rates were fully liberalized by October 1999.[292]

IN JAPAN 83-130 (1989); Richard Small, *From* Tatemae *to* Honne*: A Historical Perspective on the Prohibition of Insider Trading in Japan*, 2 WASH. U. GLOBAL STUD. L. REV. 313, 329-36 (2003).

287 Hiroshi Oda, *Regulation of Insider Trading in Japan*, *in* JAPANESE BANKING, SECURITIES AND ANTI-MONOPOLY LAW 86, 90 (Hiroshi Oda & R. Geoffrey Grice eds., 1988).

288 ISAACS & EJIRI, *supra* note 266, at 133. *See also* Katsumi Fujimori, *Nomura Chinese Wall Sends Shock to Industry*, JAPAN ECON. J., July 9, 1988, at 4.

289 ISAACS & EJIRI, *supra* note 266, at 133. For a description of the approval of a model policy on Chinese Walls by the Japan Securities Dealers Association and the spread of similar internal information barriers to banks and insurance companies, see Shen-Shin Lu, *Are the 1988 Amendments to Japanese Securities Regulation Law Effective Deterrents to Insider Trading?*, 1991 COLUM. BUS. L. REV. 179, 221-23.

290 Ministry of Finance, Ministerial Ordinance Amending Certain Provisions of the Ministerial Ordinance Concerning Rules on Sound Management of Securities Companies (Feb. 3, 1989), *translated in* OKAMURA & TAKESHITA, *supra* note 286, at 79.

291 *See, e.g.*, JONATHAN ISAACS, JAPANESE EQUITIES MARKETS 5 (1990) ("[I]nstitutional investors themselves are leading the market towards total abolition by trading abroad in Japanese stocks listed on foreign markets where the commission rates are already lower."); RICHARD KATZ, JAPAN: THE SYSTEM THAT SOURED 334 (1998) ("[D]ue to the high fixed commissions charged in Japan, the Tokyo Stock Exchange is losing out to London, where on any given day trading in Japanese stocks is as much as 30-40 percent of the levels in Tokyo itself.").

292 LAURENCE, *supra* note 243, at 181.

C. *United States, United Kingdom, and Japan Compared*

The link between the existence of price controls for brokerage services, insider trading practices, and the emergence of restrictions on information flows has not been unique to the United States. In every examined case, the strains on the fixed brokerage commissions regime and the securities industry's self-regulation were imposed by the growth of institutional investing,[293] a development that was not particularly welcomed by the leading national exchanges.[294] Wielding sufficient bargaining power and having access to alternative domestic or foreign trading venues, institutional investors were able to demand direct or indirect price reductions, including inside information. Brokerage firms, in turn, played the role of clearinghouses for inside information[295] and provided it to their preferred clients as a form of non-price competition, thereby side-stepping the fixed brokerage commissions regime. The same competitive pressures made self-regulatory prohibitions on the use of inside information either unlikely or ineffective. At the same time, non-price competition for brokerage services was still inefficient, as the availability of various rebates had not stopped institutional investors in every country from demanding the abolition of price controls. Inside information as a rebate certainly had its imperfections, such as irregularity and difficulties with valuation and rationing.

This article does not claim that the existence of the fixed brokerage commissions regimes in the United Kingdom and Japan played the *main* role in the emergence of the comprehensive regulation of insider trading in these two countries.[296] On the other hand, securities market professionals'

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293 The fact that the brokerage cartels in the United Kingdom and Japan lasted longer than in the United States might be explained by a later rise of *actively-trading* institutional investors—as opposed to passive institutional owners of securities—in these countries. *See* LAURENCE, *supra* note 243, at 110-11 (the timing in Japan); THOMAS, *supra* note 246, at 17-18 (the timing in the United Kingdom).

294 *See* 3 COMM. TO REVIEW THE FUNCTIONING OF FIN. INSTITUTIONS, EVIDENCE ON THE FINANCING OF INDUSTRY AND TRADE 269 (1978) (LSE Council Chairman Nicholas Goodison arguing that the institutionalization of securities markets had increased their volatility and thus the uncertainty about the cost of financing for companies); Sato, *supra* note 269, at 42, 46, 49 (TSE Deputy President Mitsuo Sato arguing that participation of individual investors tends to stabilize securities markets, while institutional investors are motivated by the "herd instinct" and contribute to market volatility, and that unfixing brokerage commissions would raise trading costs for individual investors); Robert W. Haack, President, N.Y. Stock Exch., Remarks at the Second Annual Institutional Investor Conference: The Securities Industry and the Realities of 1969, at 6, 12-13 (Jan. 22, 1969), http://www.sechistorical.org/collection/papers/1960/1969_0122_HaackInvestor.pdf (last visited May 27, 2008) (NYSE President Robert W. Haack arguing that liquidity is provided by "the continuing stream of smaller trades" of individuals rather than transactions of institutional investors and questioning the desirability of institutional membership).

295 *See* MANNE, *supra* note 1, at 67-68 (describing "investment bankers, underwriters, and large brokerage houses" as "clearing houses par excellence for valuable information").

296 The existence of insider trading regulation in the United States might have been a factor in the emergence of similar regulation abroad. *See, e.g.*, James A. Kehoe, Recent Development, *Exporting*

practices that were caused by price controls greatly contributed to the tightening of insider trading regulation and the regulatory approval of Chinese Walls in the 1980s in both the United Kingdom and Japan. In Japan, as in the United States, the competitive pressures that built up under the fixed brokerage commissions regime pressured both the regulators and the already multifunctional securities firms to create Chinese Walls.[297] The impact of the fixed brokerage commissions regime on the creation of Chinese Walls was more unique in the case of the United Kingdom: the *abolition* of price controls and the single-capacity system led to the widespread formation of larger multifunctional financial firms that needed internal information barriers.[298]

V. CONCLUSION

Building on Professor Manne's insight, this article has argued that the fixed brokerage commissions regime in the United States served as a catalyst for the emergence of the regulation of information flows in the form of restrictions on insider trading in organized securities markets and the implementation of Chinese Walls within financial intermediaries. Historically, the SEC did have some reservations about insider trading based on its vision of informational egalitarianism,[299] but the fixed brokerage commissions regime gave rise to rather extreme insider trading practices in the brokerage industry, created a system of information-based rebates that was questionable from the standpoint of the "orderly" brokerage rate structure, and ultimately led to regulatory intervention.[300] The histories of securities

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Insider Trading Laws: The Enforcement of U.S. Insider Trading Laws Internationally, 9 EMORY INT'L L. REV. 345 (1995). Furthermore, neither the United Kingdom nor Japan had an activist regulatory agency interested in protecting price controls in the brokerage industry.

297 *See supra* notes 287-290 and accompanying text.

298 *See supra* notes 260-262 and accompanying text.

299 *See, e.g., Proposed Amendments to the Securities Act of 1933 and to the Securities Exchange Act of 1934, Hearings before House Comm. on Interstate & Foreign Commerce on Comparative Print Showing Proposed Changes in the Securities Act of 1933 and the Securities Exchange Act of 1934 and H.R. 4344, H.R. 5065, and H.R. 5832*, 77th Cong. 118, 1247-51, 1261, 1319, 1351 (1941-42) (documenting the struggle of the securities industry and the industrial sector to abolish most restrictions on transactions by corporate insiders introduced by the Securities Exchange Act of 1934 and the SEC's opposition to those proposals); PROPOSAL TO SAFEGUARD INVESTORS, *supra* note 148, at 21 (containing the SEC's advocacy for the extension of Section 16 of the Securities Exchange Act of 1934 to unlisted securities in order to prevent the use of confidential information by corporate insiders).

300 It is illustrative that no analogous intervention had occurred before "the beginning of the end" of the fixed brokerage commissions regime. One commentator hypothesized that the adoption of computerized detection methods could have been an important factor in the emergence of insider trading regulation in the 1960s, Frank H. Easterbrook, *Insider Trading as an Agency Problem*, *in* PRINCIPALS AND AGENTS: THE STRUCTURE OF BUSINESS 81, 93 (John W. Pratt & Richard J. Zeckhauser eds., 1985), but the key enforcement actions of the SEC during that era most likely did not depend on contempora-

markets in the United Kingdom and Japan show that their fixed brokerage commissions regimes also had a great influence on their respective insider trading practices and regulatory changes.

There is no evidence that the securities industry in the United States "captured" the SEC and pushed through a comprehensive prohibition of insider trading and the creation of Chinese Walls in order to protect the fixed brokerage commissions regime. The NYSE in particular, despite the obvious interest in protecting its brokerage cartel and thus controlling kickbacks, was not too concerned about the use of inside information by its member firms to attract clients, as it was a rather common and fairly low-cost way of competing that did not substantially dissipate profits available to the brokerage industry. The modern insider trading doctrine originated as an attack by an activist regulatory agency, the SEC, on the corporate insider—broker—investment banker—securities analyst—institutional investor nexus,[301] which was rooted in the older fear of the flow of confidential information within banking houses.[302] The Commission's leadership

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neous technological advances. *See also Study of Securities and Exchange Commission Hearings*, *supra* note 148, pt. 1, at 612 (statement of Anthon H. Lund, Director, Division of Trading and Exchanges, Securities and Exchange Commission) (describing the SEC's efforts as of the early 1950s to continuously monitor unusual market and price movements for around 8,000 securities).

301 *See also* Dooley, *supra* note 23, at 10-12 (analyzing the SEC's early enforcement actions pertaining to insider trading, observing that such actions were rarely brought against corporate officers and directors as opposed to securities market professionals, noting "corporate managers' symbiotic relationship with financial analysts and other professional advisors of large institutional investors," arguing that "the paucity of actions against management insiders [questioned] the efficiency of the enforcement system," and concluding that "[securities market] professionals often used the information for the benefit of clients rather than for their own account").

302 Securities market professionals do not necessarily lose because of insider trading, as they can share trading rents with corporate insiders. *But see* Robert M. Bushman et al., *Insider Trading Restrictions and Analysts' Incentives to Follow Firms*, 60 J. FIN. 35 (2005) (presenting empirical evidence that the coverage by securities analysts increases after initial enforcement of insider trading regulation). Several commentators endorsed the theory that, because providers of liquidity, such as exchange specialists or OTC dealers, have to raise bid-ask spreads to compensate for losses from trading with better-informed insiders, frequently-trading securities market professionals are disadvantaged by insider trading because of higher transaction costs. *See, e.g.*, STEPHEN M. BAINBRIDGE, CORPORATION LAW AND ECONOMICS 586 (2002); Laura Nyantung Beny, *The Political Economy of Insider Trading Legislation and Enforcement: International Evidence* 9 (Harvard Law Sch., Ctr. for Law, Econ., and Bus., Discussion Paper No. 348, 2002); David D. Haddock & Jonathan R. Macey, *Regulation on Demand: A Private Interest Model, with an Application to Insider Trading Regulation*, 30 J.L. & ECON. 311, 331 (1987). But the relationship between insider trading and bid-ask spreads is quite weak, and it is largely emphasized in the academic literature rather than by liquidity providers themselves. *See* Stanislav Dolgopolov, *Insider Trading and the Bid-Ask Spread: A Critical Evaluation of Adverse Selection in Market Making*, 33 CAP. U. L. REV. 83 (2004). One important exception concerns providers of liquidity in options markets. *Id.* at 136-44. As articulated by the derivatives industry and evident from court cases, insider trading is a real concern to options market makers, and this is explained by the peculiar nature of providing liquidity in options. Stanislav Dolgopolov, Risks and Hedges of Providing Liquidity in Complex Securities: The Impact of Insider Trading on Options Market Makers (Nov. 2007) (unpublished manuscript, on file with author). Options market makers frequently have to "create" options, accepting the

indeed complained that "inside information has been cynically considered by analysts, corporate officials and money managers simply as coin of the realm."[303] After all, as argued in the seminal article by Professors David D. Haddock and Jonathan R. Macey, the growth of insider trading regulation as a form of protection of trading profits of securities market professionals at the expense of corporate insiders emerged only after the U.S. Supreme Court decided *United States v. Chiarella*[304] in 1980.[305] In fact, in the later years, until the adoption of Regulation Fair Disclosure in 2000,[306] the SEC tended to ignore selective disclosure by issuers to institutional investors and securities analysts, a functional equivalent of selective disclosure by an issuer to a broker-dealer which was frequently prosecuted by the regulatory agency in the past.

In a vivid metaphor of a *Wall Street Journal* observer, during the examined time period, the Commission completed its metamorphosis from "just another minor Government irritant with a bureaucrat up from the ranks as its chairman [to] an unthrottled locomotive with a wild-eyed engineer bent on obliterating everything that gets in his way."[307] The same person noted that the regulatory agency's surge of activism was primarily based on its concerns over the fixed brokerage commissions regime and insider trading practices,[308] but he ignored the interrelation among these two regulatory pillars. Insider trading regulation also acquired a life of its own and became, in the SEC's eyes, a noble fight for investor confidence and market integrity.[309] In accordance with the regulatory agency's observation that the federal securities statutes had "generated a wholly new and far-

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additional risk of leverage, rather than just "trade" such securities from their inventory. *Id.* Furthermore, the multiplicity of strike prices and expiration dates, as well as more general illiquidity of options markets, make it much harder for such market makers to manage their risk exposure. *Id.*

303 Cook, *supra* note 96, at 9.

304 588 F.2d 1358 (2d Cir. 1978), *rev'd*, 445 U.S. 222 (1980).

305 The following argument was made: "[W]hen the Supreme Court held in *Chiarella* that those without a fiduciary duty to shareholders (a status that ordinarily includes [securities] market professionals) are immune to ordinary insider trading sanctions, professionals urged and obtained stiffened penalties for insiders . . . ." Haddock & Macey, *supra* note 302, at 316.

306 Selective Disclosure and Insider Trading, Securities Act Release No. 7881, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 65 Fed. Reg. 51,716 (Aug. 15, 2000).

307 Wayne E. Green, *Spate of SEC Moves On Insiders, Fees Lead to Search for Causes*, WALL ST. J., Sept. 19, 1968, at 1.

308 *Id.*

309 For the respective opinions of the two SEC Chairmen that presided over the expansion of insider trading regulation, see William L. Cary, *Corporate Standards and Legal Rules*, 50 CAL. L. REV. 408, 415 (1962) (arguing that insider trading "infects the integrity of the market"); Manuel F. Cohen, *Disclosure - The SEC and the Press*, FIN. ANALYSTS J., July-Aug. 1968, at 21, 22 (maintaining that "the problem of 'inside information' is one that has a tremendous impact on public confidence in the fairness of the securities markets").

reaching body of federal corporation law,"[310] the issue of insider trading was in fact a vehicle of creating uniformity in corporate governance. A later commentator quite correctly argued that "the SEC appeared to demonstrate innovativeness and flexibility by attacking insider trading under the existing general antifraud provision. Not coincidentally, the Commission solidified its position in the vanguard of the movement to federalize the corporate law and thus assured itself a central role in any future regulatory scheme."[311] In that respect, the SEC, as an entrepreneurial regulatory agency, was very successful.[312]

310 Cady, Roberts & Co., 40 S.E.C. 907, 910 (1961).

311 Dooley, *supra* note 23, at 62.

312 *See* Roberta S. Karmel, *Realizing the Dream of William O. Douglas - The Securities and Exchange Commission Takes Charge of Corporate Governance*, 30 DEL. J. CORP. L. 79 (2005).

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INSIDER TRADING AND THE EFFECTIVENESS OF CHINESE WALLS IN SECURITIES FIRMS

*H. Nejat Seyhun**

ABSTRACT

This study investigates the profitability of insider trading around the time when investment bankers appoint their representatives to the board of directors. If Chinese Walls at security firms are somewhat porous, then the presence of investment bankers on a board will increase the information efficiency of the clients' stocks and reduce the profitability of insider trading. Consistent with expectations, appointment of investment bankers to the board of directors eliminates the profitability of insider trading and reduces both the bid-ask spreads and volatility. These effects are temporary and are reversed when the representatives depart. The finding that Chinese Walls are porous has a number of important economic, legal, and regulatory implications.

I. INTRODUCTION

This study comprises an indirect test of the effectiveness of Chinese Walls, defined as "policies and procedures that are designed to stop the passage of information, especially price-sensitive information, operating between departments within a firm or a financial group."[1] The concept of

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[1] The Securities and Exchange Act of 1934 requires every broker-dealer to establish, maintain, and enforce written policies to prevent the misuse of material, nonpublic information. 15 U.S.C. § 78o(f) (2006); see also McVea (1993). There are numerous financial press accounts of porous Chinese Walls and attendant conflicts of interests. In a highly publicized case, Mr. Martin Siegel, a managing director at Kidder, Peabody, Inc., was running both the risk-arbitrage and mergers and acquisitions desks (Rosen, *The American Banker*, July 19, 1987). Ron Suskind describes an entertaining account of

Chinese Walls has gained importance both as a prophylactic against illegal activity and as a legal defense against insider trading and potential conflicts of interest in securities firms.[2] Recent relaxation of the Glass-Steagall Act restrictions has allowed commercial and investment banks, insurance companies, and securities firms to engage in multi-service activities provided that these activities are separated by a Chinese Wall.[3] More recently, the 2003 Global Settlement between the Securities and Exchange Commission, National Association of Securities Dealers, and the New York Attorney General arising from biased analysts' research also calls for strengthened Chinese Walls in securities firms.[4] This regulatory approach raises the natural question of whether the Chinese Walls in securities firms are effective.

This study investigates the changes in profitability of insider trading during the appointment and departure of multi-service securities firm representatives on the board of the directors of the firm's own client. If the Chinese Walls between various departments of the securities firm are porous,

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a case against Mr. Price of Heine Securities (*The Wall Street Journal*, June 9, 1993, Column 1). In 2000 and 2001, fairness of the sell-side analysts' stock recommendations have been called into question. See Schonfeld (2000, 141); Opdyke (2001); Gasparino (2005). Analysts ratings get weighed in the balance (Opdyke, *The Asian Wall Street Journal*, New York edition, June 13, 2001, C1-C2; Gasparino (2005). Mehran and Stulz (2006) discuss the economics of conflicts of interest in securities firms in general and review the recent literature (Mehran and Stulz 2006).

[2] Section 15(b)(4)(E) of the Securities and Exchange Act provides that a broker-dealer may avoid liability for failing to supervise a violator if it has a system to detect and prevent such violations.

[3] Potential conflicts of interest as a result of the relaxation of the Glass-Steagall Act have also been studied extensively. Kroszner and Rajan (1994) examine the default experience of bond issues by commercial banks and investment banks from the pre-Glass-Steagall era (Kroszner and Rajan 1994). They find that commercial bank-issued bonds performed subsequently better than investment bank issues, an outcome inconsistent with the conflict of interest motivation. Similarly, commercial bank issues were sold at a higher price than the investment bank issues which is, again, inconsistent with a conflict of interest motivation (Puri 1996; Gande et al. 1997). More recent studies, from sources outside of the U.S., have provided some additional evidence of conflicts of interest. Lehar and Randl (2006) have found some evidence of conflicts of interest for analysts in German banks through the suppression of negative information when the market is too optimistic (Lehar and Randl 2006). Gompers and Lerner (1999), Hamao and Yoshi (2000), and Klein and Zoeller (2003) find some evidence of conflicts of interest in markets ranging from venture capital to Japanese bond markets to German IPOs.

[4] The Global Research Analyst Settlement imposed after-tax penalties of $1.4 billion on ten of the most prominent financial institutions and called for the ten securities firms involved to institute policies to reduce potential conflicts of interests and to "physically separate their research and investment banking departments to prevent the flow of information between the groups." A second provision called for securities firms to create and enforce firewalls restricting interaction between investment banking and research. The settling firms were Bear Stearns, CSFB, Goldman Sachs, Lehman, JP Morgan, Merrill Lynch, Morgan Stanley, Citigroup-SSB, UBS, and Piper Jaffray. In 2004, Deutsche Bank and Thomas Weisel Partners as well as two individuals, Jack Grubman and Henry Blodget, joined the settlement agreement. Recent studies by O'Brien, McNichols and Lin (2005), Bradshaw, Richardson, and Sloan (2006), Chan, Karceski and Lakonishok (2006), and James and Karceski (2006) find evidence of conflicts of interest for sell-side analysts.

then much of the material, nonpublic financial information gathered by its board representative will also find its way into other departments of the securities firm, including the research desk, proprietary and retails trading desks, and market-making operations. An interesting test of the Chinese Walls at multi-service securities firms can be performed by examining the changes in the profitability of insider trading before, during, and after the board appointments of the securities firms' representatives.[5]

If Chinese Walls are somewhat porous and material, the dissemination of nonpublic information, exchanged between the board representative and other divisions of the securities firms, should result in increased information efficiency for the pricing of a client's stock. As more information about the client firm is incorporated into its stock price through research reports, buy-sell recommendations, or direct trading, I expect stock prices of the client firms to move closer to their full-information values. As stock prices become more efficient, I would expect the profitability of insider trading within the client firms to be either reduced or eliminated. Reduction in informational asymmetries should also reduce the bid-ask spreads and stock price volatilities by reducing the adverse-selection component in the bid-ask spreads immediately following the arrival of the securities firm's representatives. Finally, I would also expect these effects to be temporary and to reverse when the representatives of the investment banks leave the boards, thus eliminating the information exchange between the client firm and securities firm.

The evidence provided in this study suggests that the Chinese Walls are porous and ineffective, and material, nonpublic information about the client firm is allowed to pass between departments of the securities firms. I find that the arrival of the representative of the securities firms on the board of directors completely eliminates the ability of the other insiders to trade profitably. I also find that the presence of representatives of the securities firm on the board of directors of the client firm reduces both the bid-ask spread and volatility of client-firms' stock price. Furthermore, I find that these changes are temporary and that they are reversed upon the departure of the securities firms' representatives. Following the departure of the securities firms' representatives, insiders' profits increase to previous levels, bid-ask spreads widen, and volatility of the stock returns increases.

The finding that Chinese Walls at securities firms are porous has important implications for the clients of the securities firms. It is important for the clients to request and receive price, trading volume, and change of status information from the securities firms to be able to monitor and ensure

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[5] Kroszner and Strahan (2001) examine incentives of *commercial* bankers to sit on clients' boards and analyze corporate governance issues as well as the trade-off between monitoring and potential conflicts of interest. They find that the likelihood that a firm has a commercial banker on its board first increases then decreases with volatility, consistent with the notion that monitoring dominates at low levels of risk and potential conflicts of interest dominates at high levels of risk.

that the securities firms are not profiting at the client's expense. The nature of this information is outlined in the conclusions and implications section. Otherwise, leakage of information across the various departments of the securities firms may not be in the best interest of the client firms.[6]

There are numerous other important implications of this study. First, the approach followed here can be used to test the effectiveness of Chinese Walls in any securities firm. This approach can be used by litigants, or by shareholders and executives of the client firms, to determine the extent to which nonpublic information about the client firm is disseminated and incorporated into the stock prices. Second, my evidence suggests that porous Chinese Walls can lead to greater informational efficiencies: increased dissemination of corporate information reduces insiders' profits, bid-ask spreads, and volatility. These informational efficiencies can increase the stock prices. Finally, this study also suggests that the interests of corporate insiders and market professionals are often opposed to each other. While both corporate insiders and market professionals in securities firms wish to trade on nonpublic information, market professionals in securities are able to utilize this information more fully, leading to greater information efficiencies. Consequently, greater trading opportunities for the market professionals in securities firms correspond to reduced profits for corporate insiders. Therefore, I would expect various regulatory policies that impede insider trading to benefit market professionals and vice-versa.

The remainder of the paper is organized as follows: Section II discusses the relation between securities firms' representatives and the client firms; Section III describes testable hypotheses; Section IV describes the data and the sample characteristics; and Section V presents the empirical results. Conclusions and implications are in Section VI. Appendix 1 provides a discussion of Chinese Walls and Appendix 2 gives the details of the computation of event study methodology.

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[6] The Australian Securities and Investments Commission (ASIC) recently accused Citigroup of insider trading and of breaching its Chinese Walls, after Citigroup purchased $5 million of Patrick Corporation shares for its proprietary trading account on August 19, 2005 while advising its client Toll Holdings of its Patrick takeover attempt. The Citigroup purchase pushed up the stock price of Patrick by 13%. On August 22, Toll Holdings announced its own takeover attempt of Patrick. See New York Times, Citigroup sued by market regulator in Australia, April 1, 2006. Also, in 2005, brokers at Merrill Lynch, Lehman Brothers, and Citigroup were criminally charged with giving access to block trading information that allowed the traders at A. B. Watley and Millennium Brokerage to front-run their own customers. Brokers did this by calling up the traders in the morning and then leaving their telephones open next to the internal telecoms, or "squawk boxes," that allowed the traders to listen to the incoming orders. See Bloomberg.com, August 15, 2005.

II. SECURITIES FIRM REPRESENTATIVES AND INFORMATIONAL ASYMMETRIES

Securities firms typically become "insiders" in a client firm when an underwriter unit of a securities firm brings an initial public offering (or a reverse leveraged buy-out) to the market. Often, underwriters are compensated by warrants. Underwriters also retain some portion of the initial stock offering. If underwriters retain more than ten percent of equity or any equity-like security (warrants, convertible bonds), they are legally classified as insiders and are subject to insider trading regulations, including reporting requirements. In addition to the market-making relation, the underwriters' advisory, relation as well as their substantial equity interest in the firm, provides them with inside representation in the client firm.

This study identifies the representatives of the securities firms who make a market in firms' stock and at the same time serve as directors or officers in the client firms. Representatives of securities firms identify themselves as *market makers*, in addition to their officer or director relations within the client firms, using a special code under the "nature of ownership" field when they file initial or periodic insider ownership reports to the Securities and Exchange Commission. In some securities firms, there is more than one inside representative in a given client firm.

There are a number of ways (not mutually exclusive) in which confidential information possessed by the securities firm would reduce the informational advantage of the client firm insiders. Assuming that the Chinese Walls between departments of the securities firms are somewhat porous, the securities firm can use the representative-insiders' information for its proprietary or retail trading accounts. This trading of clients' stocks should be profitable for the securities firm and it should also lead to some price adjustment and erode the information advantage of the unaffiliated insiders of the client firm. As the securities firm trades to a greater extent either for its own benefit, or for its clients' benefit, greater price adjustment would occur. Alternatively, the securities firm could pass this information to its favored clients using buy-sell recommendations, target price guidance, or earning forecasts. These favored clients (hedge funds or mutual funds) should return the favor by directing a greater fraction of their executions through the securities firm and, at the same time, be willing to pay above-market fees for these services. Once again, securities firm benefits and client-insiders' informational advantage is eroded. If insiders' information about the client firm is passed to the securities firm's market-making unit, then the market-maker could simply change his or her quoted prices for the client firm's stock and make changes in its inventory holdings. All of these actions would result in incorporating material nonpublic information, formerly available only to the board of directors, into stock prices, thereby reducing client-insiders' informational advantages.

Once the securities firm has taken positions based on the newly acquired information, the firm no longer has any interest in keeping this information confidential. In fact, the securities firm will want to disseminate this information as widely as possible, and if necessary, give the information away for free. The widest possible dissemination of the original inside information allows the securities firm to capitalize on its earlier trading positions. If the securities firm traded based on the information, revelation and dissemination of the information will produce profits for these trades. If the securities firm issued research reports, dissemination of the information will allow the security firm's other clients to profit based on their trading activity. With the widest possible dissemination of the original material, nonpublic information will in turn further reduce and may completely eliminate the client-insiders' informational advantages.

III. TESTABLE HYPOTHESES ABOUT INFORMATIONAL EFFICIENCIES

In this paper, I test the following hypotheses:

> *Porous Chinese Walls Hypothesis*: If Chinese Walls are porous, then closer cooperation between multi-service securities firms and the client firms improves informational efficiencies of the client firms' stock prices and reduces profitability of insider trading.[7]

> *Effective Chinese Walls Hypothesis*: If Chinese Walls are effective, then closer cooperation between multi-service securities firms and the client firms does not affect informational efficiencies.

If Chinese Walls at the securities firms are somewhat porous, and the security firms are not worried about exploiting their newly found access to material, nonpublic information, then greater dissemination and exploitation of the corporate information will improve informational efficiencies. Conversely, if the Chinese Walls are nonporous, or the security firms are worried about exploiting their newly found access to information, or there is no material, nonpublic information flow, then informational efficiencies should not be affected.

Under the Porous Chinese Walls Hypothesis, the informational advantage of the unaffiliated officers of the client firm is reduced and eventually completely eliminated by increasing the information efficiency of the cli-

[7] Directly testing for the effectiveness of the Chinese Walls in securities firms is difficult and requires access to nonpublic information. Kolasinski (2006) provides another indirect test and finds that Chinese Walls have not been raised after the Global Settlement.

ent's stock price. In this case, the profitability of insider trading in firms with securities firm representatives should be less than a matching cross-section of firms without such representatives. Also, the arrival of the inside representatives should result in a decline in the profitability of the insider trading and the subsequent departure of the representatives should result in an increase in the profitability of the insider trading close to the original profitability levels. In the very extreme, if the Chinese Walls are totally porous and all special information known by the insiders is passed to the securities firms and then to the investing public at large, the unaffiliated insiders of the client firm should not be able to trade profitably *at all* based on their "not-so-confidential-anymore" information. Hence, the degree to which profitability of insiders' information decreases is directly correlated with increases in informational efficiencies. Consequently, changes in the informational asymmetries enjoyed by insiders before, during, and after the arrival of the representatives of the securities firms can provide a critical test of the informational leakage across the Chinese Walls.

Under the Effective Chinese Walls Hypothesis, the board representatives of the securities firms will not convey any information back to the securities firm, and thus the unaffiliated corporate officers of the client firms should continue to enjoy informational advantages and earn profits as before.[8] Moreover, the profitability of client-firm-insiders should be no different than the profitability of corporate insider trading without securities firm representatives. Also, in a time-series sense, the profitability of the insiders should not diminish upon the arrival of the securities firms' representatives nor should it increase after the representatives of the securities firms leave the client firm.

My second test of the informational asymmetries involves examining the bid-ask spread and volatility of client firms' stock prices before, during and after the representatives of the securities firms are appointed to the client firms. "Bid" represents the low price at which the market-maker is willing to buy the stock, and "ask" represents the high price at which the market-maker is willing to sell the stock. Thus, the bid-ask spread represents the compensation to the market-maker for providing immediate execution services. Since market-makers typically lose to informed traders and make profits from liquidity traders, the bid-ask spread is set higher to offset market-makers' losses to the informed traders. Holding all else constant, when there are greater informational asymmetries, the bid-ask spread has to be

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[8] Section 16(a) of the Securities and Exchange Act defines insiders as officers, directors, and holders of more than ten percent of any equity class of securities (15 U.S.C. § 78p(a)(1) (2006)). Section 16(a) also requires that insiders report all transactions to the Securities and Exchange Commission, or the exchange where the transaction took place, no more than ten days after the end of the month of the transaction. To determine whether the insiders are informed, this study examines the profitability of trading by other corporate insiders similar to Jaffe (1974), Finnerty (1976), and Seyhun (1986, 1998) show that insiders typically earn about 3% abnormal profit over a year following their transactions.

even greater (called the adverse selection component).[9] When information asymmetries are reduced, the adverse selection component of the bid-ask spread should also decline, thereby reducing total bid-ask spreads.

To test whether Chinese Walls are porous, and thus whether the presence of securities firms' representatives improves informational efficiencies, I also examine changes in the bid-ask spreads and volatility of stock returns. If informational efficiencies are improved, then both the bid-ask spread and volatility of stock returns should decline upon the arrival of the representatives. Similarly, departure of the securities firms' representatives should result in an increase in the bid-ask spread and volatility of stock returns. If the Chinese Walls are effective and the presence of the securities firms' representatives does not affect informational asymmetries, then I expect no change in the bid-ask spreads or the volatility, either when the representative arrives or when the representative departs.

IV. DATA AND SAMPLE CHARACTERISTICS

The insider trading data used in this study comes from the United States National Archives. The data includes all insider transactions in all publicly listed firms between January 1975 and December 2005. Unfortunately, the most recent data provider, Thomson Financial, does not include the code that is used to identify the market-makers after 2000. Consequently, the market-maker code is only available between 1975 and 2000. Data on stock prices, stock returns, trading volumes, outstanding shares, and bid-ask spreads were obtained from the files of the Center of Research on Security Prices at the University of Chicago (CRSP). The bid-ask spread data was collected from the transactions database provided by the Institute for the Study of Security Markets (ISSM) and Trade and Quote (TAQ) database made available by the New York Stock Exchange and supplemented by the CRSP tapes.

For a firm to be included in the sample, it must have at least one valid open market sale or purchase by an insider. This restriction is necessary to ensure that the firm is complying with the insider trading reporting requirements of Section 16(a) of the Securities and Exchange Act of 1934. In addition, a certain amount of return data must be available for estimating abnormal returns.

This study examines insiders' open market sales and purchases. All other transactions, such as private transactions, exercises of options, stock splits, and redemptions are less likely to be associated with special information. These transactions are excluded. All duplicate transactions, amended

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[9] Studies by Benston and Hagerman (1974), Ho and Stoll (1981), Roll (1984), Copeland and Galai (1983), Glosten and Milgrom (1985), Glosten and Harris (1988), and Stoll (1989) examine the determinants of the bid-ask spreads.

transactions, and inconsistent transactions have been eliminated. The data set includes the firm's Committee on Uniform Securities Identification Procedures (CUSIP) number, the insider's relationship to the firm, the number of shares transacted, the nature of the ownership, the nature of transaction, the stock price, the date the transaction was reported to the SEC, and the publication date of the transaction.

Table 1 shows the distribution and identity of the representatives of the securities firms. Using the insider-trading database, 550 representatives of the securities firms are identified in 509 client firms. Table 1 also shows the relation between the representatives and the client firms. By far, the most common title for representatives of the securities firms is outside director. Of the 550 representatives, 418 are outside directors. Hence, these representatives are present when important policy discussions are taking place at the client firm. The remaining designations include officers (22 representatives), large shareholders (76 representatives), and trustees and other (34 representatives).

Client firm sizes cover a broad spectrum, although most representatives are in very small firms (201 representatives in 188 firms with average market capitalization less than $25 million). Number of representatives generally falls with rise in firm size. As the average firm size increases from $25 million to over $1 billion, the number of representatives of the securities firms declines to 143, 125, 31, and 50, respectively.

An interesting issue that arises with the presence of the securities firm representative-directors is whether the unaffiliated insiders of the client firms become reluctant to engage in insider trading. This reluctance can be imposed by securities firms or voluntarily adopted by insiders themselves. In some special cases, securities firms typically do restrict insider trading immediately after an IPO, through lock-up agreements. These agreements restrict the insiders' ability to sell stock, typically for a period of nine to twelve months, though the insiders are allowed to buy stock during this period. Alternatively, the officers of the client firms may curtail their insider trading activity voluntarily because of the signal such trading sends to investors. This reasoning suggests that both the volume and the information content of insider trading will decline after the representatives of the securities firms join the board. To address this issue, I begin by examining both the level of investment banking activity and the volume of insider trading activity before, during, and after the presence of the securities firm representatives.

The trading activity of the investment banks is examined in Table 2. The activity is measured in terms of number of initial public offerings as well as seasoned equity offering, and the average dollar volume of the proceedings before, during, and after the presence of the securities firm representatives. The exact date of the representatives' arrival is determined from the insider trading reports. Those considered insiders under Section

16(a) of the Securities and Exchange Act of 1934 must file a Form 3 report with the SEC, as well as the exchange where the stock is listed, as soon as they become insiders. This report must indicate the date, the name of their company, their name, their relation to the firm, and any shares held. Thereafter, insiders are required to file Forms 4 and 5 whenever they acquire or dispose of any shares in their firms. These can be voluntary transactions such as open market purchases and sales of stock, or involuntary ones such as granting of options, redemption of securities by the firm, and any distributions by the firm. Each insider trading field also contains a code indicating whether these reports came from Form 3, 4, or 5. I use the first filing of Form 3 by any representative of the securities firm to mark the arrival of the representatives.

While insiders must file Form 3 when they arrive and while they are still considered insiders, they do not have to file special reports when they cease to be insiders. To estimate insiders' departure dates, I use the last insider trading report utilizing Forms 4 or 5. I consider the representatives of the securities firm to still be on the board as long as any representative files insider trading reports. For some of the client firms, insider trading reports by their representatives stop at some point. Since Form 5 must be filed once a year, I consider the representatives to be on board for one year after the last insider trading report was filed. These reports must be filed within forty-five days of the end of the fiscal year to reconcile any discrepancies, report any sales by insiders back to the issuer that are approved by the board of directors, and report any small transactions (currently under $10,000), distributions, or redemptions that are exempt from Form 4 filing. Hence, the last filing of Form 5 indicates that the insider is no longer affiliated with the firm.[10] After this date, I consider any representation by the securities firm to have ended. To be included in the "during" sample below, non-affiliated insiders of the client firms must have traded after the arrival date and before the estimated departure date of the representatives of the securities firms.

While the arrival date of the representatives is accurately reported, the departure date of the representatives is an estimate. If the representatives depart the day after they file Form 5 for the last time, with my assumption that the representatives are present one year after the last Form 5 filing, I will incorrectly assume that they are with the client firm for one more year than they actually are. Under the hypothesis of porous Chinese Walls, profitability of insider trading should be high both before and after the appointment of representatives to the board and low while the representatives are on the board. Under the hypothesis of effective Chinese Walls, this estimation error will not matter since no change in profitability

[10] Not filing a Form 5, even though the insider is still affiliated with the firm, would be a violation of the Section 16(a) of the Securities and Exchange Act of 1934. My results do not change when I consider the departure date to be the date of the last filing of Form 5, instead of a year later.

is expected. Hence, if the representatives' departure date is incorrectly estimated, it will be difficult to distinguish between the profitability during and after the representatives' presence, which will work against the rejection of the effective Chinese Walls hypothesis.

Overall, the evidence in Table 2 does not suggest anything unusual in terms of investment banking activity when the board representation includes securities firms' employees. By and large, the period when the securities firms' representatives are present on the board of directors does not correspond to the period of most intensive investment banking activity. Of the 113 initial public offerings, only one occurred during the period when the representatives of the securities firms were present on the board of directors. Both the number of deals as well as the average dollar volume of proceeds are highest for the period after the departure of the securities firms representatives.

To determine if there are other confounding events when the representatives of the securities firms are present, I also examine option exchange listing activity before, during, and after the presence of the securities firms' representatives. Only 57 of the 509 client firms, 11% of the total, are listed on an options exchange during my sample period. Of these, 19 listings took place before the arrival of the representatives, 5 listings occurred while the representatives were present, and 33 listings occurred after the representatives departed (Table 2). Hence, the period when the representatives of the securities firms are present inside the client firm is not characterized by an unusually high level of options exchange listing activity.

I next examine the changes in insider trading activity before, during, and after the arrival of the representatives of the securities firms (Table 3). My overall sample contains 17,412 transactions before the arrival of the representatives. During the period when the representatives are on the board of the client firms, insiders trade 17,251 times. After the departure of the representatives of the securities firms, insiders trade 41,528 times. Hence, the overall sample contains 76,191 transactions by insiders in firms that are clients of the securities firms.

Table 3 shows that insiders in client firms are typically buyers in small firms and sellers in large firms.[11] This pattern generally holds before, during, and after representation by the securities firms. Hence, on average, insiders in small firms remain buyers of stock before, during, and after the arrival of the representatives. Similarly, insiders in large firms, on average, remain sellers of stock before, during, and after the arrival of the representatives. The fact that insider-trading directions are not affected by the presence of representatives of the securities firms suggests that insiders'

[11] For similar patterns in all publicly listed firms, see Seyhun (1986).

perception of over or under-valuation of the firm does not change as a result of the affiliation with a securities firm.

Table 3 also shows that the frequency of insider trading during the representation period is in fact substantially higher than before or after the arrival of the representatives. The arrival of the representatives of the securities firms on the board of directors, then, appears to encourage rather than discourage insider trading. In small firms, insider trading frequency increases almost three- to four-fold compared to the period prior to the representatives' arrival. Insider trading frequency also increases in large firms, but to a lesser degree. The insider trading activity reverts to its initial patterns after the representatives leave. Table 3 also shows that increases in insider trading activity are present on insiders' purchases as well as insiders' sales. Both sales as well as purchases increase three or four-fold. Overall, there is no evidence of a decline in insider trading when representatives are present.

The changes in the intensity of insider trading patterns before, during, and after the arrival of the representatives of the securities firms are examined more formally in Table 4, along with statistical significance analysis. My evidence shows that insiders with securities firm representatives tend to trade more than those without securities firm representatives. The differences are statistically significant in smaller firms. Table 4 also shows that the increase in insider trading activity is especially pronounced at the time the representatives are on the board. Insider trading activity increases when the representatives of the securities firm join the firm and declines back to original levels when the representatives leave. Overall, I find no evidence that the presence of securities firm representatives discourages insider trading in client firms.

V. INFORMATIONAL ADVANTAGES OF CLIENT-FIRM INSIDERS

A. *Profitability of Insider Trading in Client Firms Prior to Arrival of Securities Firm Representatives*

The group of tests presented in this section attempts to determine if the insiders of the client firm enjoy any informational advantages before, during, and after the arrival of the representatives of the securities firms. If insiders are able to trade profitably and no changes occur in the informational advantages of insiders before, during, and after the arrival of the representatives, then clearly, no information leakages have occurred as a result of their arrival and the Chinese Walls are effective. In contrast, if client firms' insiders traded profitably before the arrival of the representatives, and less profitably after the arrival of the securities firm representatives, then my evidence would suggest that the Chinese Walls are ineffective.

I begin by examining the pre-arrival profitability of insider trading in client firms. Profitability of insider trading is computed four different ways: (1) equally-weighted market-adjusted returns, (2) share-weighted market-adjusted returns, (3) equally-weighted holding period abnormal returns, and (4) share-weighted holding period abnormal returns. By computing insiders' performance through a variety of approaches, I hope to ensure that my findings are sufficiently general.

Insiders' abnormal profits are estimated using a standard event study method, which is explained in Appendix 2.[12] Month zero refers to the insider-trading month. Standard errors of abnormal profits and cumulative abnormal profits are estimated from the time-series variation in abnormal profits over a 72-month window, from 35 months before to 36 months after the insider trading month, after taking into account any serial correlation of abnormal profits. Hence, the t-statistics assume neither cross-sectional independence nor time-series independence. The standard error of the differences in insiders' abnormal profits in client firms versus non-client firms are computed in the same way, for the same 72-month window around the insider trading month. The significance of the holding period abnormal returns is measured by a bootstrapping approach. An empirical distribution of holding period abnormal returns is generated around randomly selected dates, one thousand times. The significance of the holding period abnormal return for insiders is then determined by comparing insider profit with its empirical distribution.

Corporate insiders' abnormal profits are computed by taking equally-weighted averages of all trades as well as weighting the abnormal profit from each trade by the number of shares traded. For share-weighted results, insiders' abnormal profits are weighted by the number of shares bought and sold *within* each firm and then equally weighted across firms. This procedure gives proportionately greater weight to higher volume transactions and ensures that each firm gets the same weight in the overall averages.

The evidence in Table 5 indicates that insiders in client firms trade profitably before the arrival of the representatives of the securities firms. Their equally-weighted abnormal profit averages 1.26% after one month, rising to 4.96% after twelve months. Both figures are significant at the 1% level. I then compare the profitability of insider trading in client firms before the representatives' arrival with a sample of control firms matched in size and prior stock price momentum. There is no difference in the abnormal profits of these two groups. In control firms, insiders' profit after one month averages 0.93%, rising to 4.32% after twelve months. The differences between the profitability of insiders' trading in client firms and in control firms are not statistically significant.

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[12] To review the event study methodologies using monthly and daily returns, see Brown and Warner (1980, 1985).

The remainder of Table 5 repeats the same analysis using the other three measures of insiders' profitability. Both the qualitative and the quantitative conclusions remain similar. Insiders in client firms earn profits before the arrival of the representatives of the securities firms. Moreover, the profitability of insider trading in client firms is no different than the profitability of insider trading in other, similar firms. My evidence so far suggests that there is nothing unusual about insider trading in firms where the securities firms have appointed directors.

B. *Profitability of Insider Trading when Securities Firm Representatives are on Board*

I now examine the profitability of insider trading in client firms during the time when the representatives of the securities firms are present on the board of directors. I also compare the profitability of insiders' trades in client firms with a sample of matching control firms, where the securities firms do not have any representatives on the board. These tests are to determine whether insiders maintain their informational advantages after the securities firm representatives' arrival.

The evidence in Table 6 shows that insiders are no longer able to trade profitably when representatives of the securities firms are present on the board. Insiders' abnormal profit now ranges from 0.18% after one month to 1.11% after twelve months. Estimates of insiders' trading profits never attain a statistically significant level. In contrast, insiders in control firms matched by size and momentum continue to trade profitably. The results are the same when insiders' profits are measured by weighting according to the number of shares traded or by using holding period returns. Insiders in these firms, who were trading profitably before the representatives of the securities firm joined, are unable to generate any trading profits after the representatives join.

I have replicated the evidence in Table 6 for officers and top executives only. As with the full group, when the representatives of the securities firms are present, officers and top executives are not able to trade profitably. This evidence suggests that the information advantages of all insiders are eroded by having representatives of the securities firms on the board of directors.

C. *Profitability of Insider Trading After Securities Firm Representatives Depart*

I next examine the profitability of insider trading after the representatives of the securities firms depart. If the representatives' presence causes information leakages, then their departure should restore the ability of insiders to trade profitably. If the decline in the profitability

of insider trading after the representatives' arrival was coincidental, and did not represent violation of the Chinese Walls, I would expect no change in the profitability of insider trading after the representatives' departure. If the decline of the profitability of insider trading was due to information leakages by the representatives, then I would expect insider trading profits to return to their original levels after the representatives' departure.

Table 7 shows that after the securities firms' representatives depart, insiders once again trade profitably. In fact, the profitability of insider trading is restored to its original levels. Insiders' abnormal returns during the sub-period following the representatives' departure date range from 0.80% after one month to 3.95% after twelve months. These figures are similar to insiders' trading profits before the representatives joined. These figures are also similar to the profitability of insider trading in size- and momentum-matched control firms. Using share-weighted abnormal profits, or holding period abnormal profits, yields similar results. The same tests repeated on officers and top executives again yields similar results.

My evidence suggests that insiders trade profitably before the representatives arrive. Having the representatives of the securities firm on the board results in information leakages and a reduction in the information advantages of insiders. Finally, the representatives' departure results in increased information asymmetries and restored profitability of insider trading. This evidence is inconsistent with effective Chinese Walls.

D. *Sensitivity Analysis*

While not shown here in detail, I have conducted some sensitivity tests of my findings. First, I compared my findings with the appointment of any outside director instead of representatives of investment banking firms. In this case, I do not find any change in either the profitability or volume of insider trading around the appointment of outside directors. Hence, my findings in this study are unique to the appointment of representatives of investment banking firms, and do not apply to outside directors in general. Second, I examine the time-series stationarity of my findings by dividing the sample between pre- and post-1990. My findings were similar in both pre-1990 and post-1990 sub-samples. This evidence suggests that my findings are general and cannot be attributed to some unusual event such as the burst of the tech stocks in early 2000.

Third, I examined the profitability of insiders' purchases and sales separately and compared the changes in profitability of purchases and sales through the three regimes. I find that the changes in profitability of insider trading in client firms are driven mostly by purchases. Both purchases and sales show usual profitability prior to the arrival of the representatives of the securities firm. Once the representatives are on board, the profitability of insiders' purchases becomes negative, while insider sales maintain their profitability. After the representatives of the securities firms leave, both

insider purchases and sales exhibit usual profitability levels once again. These findings suggest that the presence of the representatives on the board of directors allows good news to be reflected in the stock price more quickly and more fully, while not affecting the speed of reaction to negative news. This finding is consistent with other literature that securities firms tend to issue more buy recommendations than sell recommendations and they are more reluctant to exploit negative information.[13]

Fourth, models of strategic insider trading suggest that the variance of security returns is an important determinant of the profitability of insider trading.[14] Higher variance of security returns increases the value of any nonpublic information and thereby leads to more profitable insider trading. Empirically, when insiders' profits are grouped by the volatility of underlying stock returns, there is a positive relation between insiders' profits and volatility. Corporate insiders are able to earn higher abnormal profits as the volatility of security returns increases. For the lowest volatility group, insiders' profits average 2.6% after one year. For the highest volatility group, insiders' average profits reach an astounding 15.6% after one year. When representatives of the securities firms are present on the board of directors, the relation between volatility and insiders' profits disappear. This finding suggests that the presence of the representatives removes an important source of insider trading information.

I also examined the relation between exchange listing and changes in profitability of insider trading before, during, and after the presence of the representatives. I find no relation. Hence, whether the firm is listed on NYSE, AMEX, or NASDAQ, the presence of securities firms' representatives reduces the ability of insiders to exploit their information.

E. *Informational Asymmetries and the Bid-Ask Spreads*

A secondary test of the effectiveness of the Chinese Walls can be performed by comparing the dealer's bid-ask spread in client firms before, during, and after the presence of securities firms' representatives. The dealer's bid-ask spread provides compensation for inventory costs, order processing, and risk-aversion, as well as losses to more informed traders. If the losses to informed traders constitutes a significant part of the bid-ask spread (adverse-selection component), then having a representative on the board of directors of the client firm would reduce these costs. To the extent the securities firms exploit their special connection with the client firms,

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[13] Malmendier and Shanthikumar (2008) analyze a sample of 121,130 analysts' recommendations from October 29, 1993 to December 31, 2002. They find that only 4.58% of the recommendations fall in the categories of sell or strong sell, while 58.57% fall in the categories of buy or strong buy. The remainder, 36.84% are hold recommendations.

[14] See Kyle (1985).

inside information is reflected more quickly and fully in the stock prices. Consequently, I would expect the information asymmetry component of the bid-ask spread to be smaller when the representatives of the securities firms are appointed to the board of directors. These predictions are tested next.

The relation between securities firms' representation and bid-ask spreads (the difference between quoted bid and ask prices) are shown in Table 8. In most cases, the spread is computed from the intra-day posted quotes available from the transactions databases provided by ISSM and TAQ. Intra-day bid-ask spreads were first averaged for each day. The daily averages were then used to compute the average bid-ask spread for each period. In cases where the bid-ask spread could not be computed from the transactions databases, the CRSP database was used to obtain the closing bid-ask quotes.

In all firm size groups including the overall sample, the arrival of the representatives of the securities firms reduces the bid-ask spread by about 50%, while the departure of the representatives restores the bid-ask spread to its original level. For instance, in the smallest firm size group, prior to the arrival of the representatives, the bid-ask spread averages 13.7%. When the representatives are appointed to the board of directors, the bid-ask spread falls to 6.3%. After the representatives depart, the bid-ask spread rises back to 14.4%. In the largest firm size group, prior to the arrival of the representatives, the bid-ask spread averages 1.98%. When the representatives are appointed to the board of directors, the bid-ask spread falls to 0.85%. After the representatives depart, the bid-ask spread rises back to 1.13%. The same pattern of decline and subsequent increase in the bid-ask spread is present in all firm size groups. The initial decline and the subsequent increase in the bid-ask spread are both statistically significant.

I finally examine the changes in volatility of stock returns around the appointments of the representatives of the securities firms. If the presence of the representatives reduces informational asymmetries, I would expect a decline in the volatility when the representatives are present on the board and an increase in volatility after the representatives depart. I compute volatility as the variance of daily stock returns.

The evidence, shown in Table 9, is consistent with this prediction. For each firm size group, arrival of the representatives reduces informational asymmetries measured by the variance of stock returns. In every case, the reduction in daily variance after the arrival of representatives is over 50%. The declines are statistically significant at the 1% level for the smallest and the largest group, as well as the total sample. These temporary declines in volatility reverse after the departure of the representatives. In every case, volatility increases back to original levels and, in some cases, above the original levels. All of the increases are statistically significant at either 1% or 5% levels. Overall, this evidence is consistent with the interpretation that closer cooperation with the securities firm leads to increases in informational efficiencies.

F. *Additional Analysis*

An interesting question not directly addressed by this study is why the securities firms appoint directors to some client firms in the first place. A logistic analysis is conducted to analyze the factors that make it more likely to have board representation by the securities firms. The most significant factor that emerges is firm size. In a cross-sectional analysis, increasing firm size increases the likelihood of board representation by the securities firms. Larger firms are more likely to have securities firms' representatives on their boards.

Firm size also happens to be a most important variable for explaining the profitability of insider trading. Insider trading is least profitable in large firms and most profitable in small firms.[15] An interesting question that arises is whether changes in firm size (market capitalization) over time can explain the findings documented here.

While firm size shows up significantly in a cross-sectional analysis as an important determinant of board representation and insider trading profitability, it does not have the right sign to explain the changes in informational asymmetries that have been documented here in a time-series sense. Typically, larger firms have lower profitability of insider trading, smaller bid-ask spreads, and smaller volatility of stock returns. Larger firms are also more likely to have board representation by securities firms. However, during the period in which client firms have securities firms' representatives on their boards, market capitalization is lower than before and after the representatives are present. This finding suggests that representatives of the securities firm join the board during a down period for the firm. Hence, based on changes in firm size over time, one would have expected higher profitability of insider trading, higher bid-ask spreads, and higher volatility when securities firms representatives are present on the board of directors. Hence, changes in market capitalization have the opposite predictions and do not explain the findings documented here.

VI. CONCLUSIONS AND IMPLICATIONS

This study investigates the effectiveness of Chinese Walls in securities firms by analyzing the profitability of insider trading in client firms during times when investment bankers appoint their representatives to the boards of directors of those client firms. If Chinese Walls at the securities firms are porous, then the presence of investment bankers on the board of directors is expected to increase the information efficiency of the clients' stocks and reduce the profitability of other insiders. If Chinese Walls are nonpor-

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[15] See Seyhun (1998, 89-92).

ous, then the presence of investment bankers on boards is not expected to affect the information efficiency of the clients' stocks.

To test the effectiveness of Chinese Walls, this study examines the profitability of unaffiliated corporate insiders' transactions in client firms before, during, and after the appointment of the representatives of securities firms to the client's board of directors. If Chinese Walls are porous, insider trading in the client firm should be less profitable after the arrival of the representative of the securities firm. If Chinese Walls are effective, then the profitability of insider trading in the client firm should not be affected.

Evidence presented here shows that the insiders in client firms trade profitably before the arrival of the representatives of the securities firms. When the representatives of the securities firms are present on the board of directors, the ability of unaffiliated corporate insiders to trade profitably is completely eliminated. After the departure of the representatives, client-firm insiders once again are able to trade profitably. Overall, my evidence suggests that Chinese Walls are porous and the presence of the securities firms' representatives improves informational efficiencies of the stock price by reducing informational asymmetries for the client-firms and reduces both the bid-ask spread and volatility of the stock returns in the client-firms' stocks. My evidence also shows that these effects are temporary and reverse when the representatives of the securities firms leave the board of directors.

My findings have important implications for the current regulatory changes in the securities firms. Recent changes in the law have allowed commercial banks, investment banks, and insurance companies to consolidate under single ownership, provided that they establish Chinese Walls. My evidence shows that these newly formed institutions can have some welfare-improving effects by improving informational efficiencies in the capital markets, by reducing bid-ask spreads and volatility of the stock prices. Porous Chinese Walls, however, increase both the likelihood and the costs of potential conflicts of interest. Whenever securities firms have access to greater information regarding clients, the same clients must ensure that this access is not used against the best interest of their own shareholders.

My findings suggest that all clients of securities firms should start with the assumption that the Chinese Walls are porous and monitor security prices and trading activities of the securities firms for potential leakage. The key ingredient in such a monitoring program is the acquisition of information necessary to monitor and evaluate the securities firms' performance on a continuous basis.

Based on the findings in this study, for instance, securities firms' institutional clients should implement programs to ensure that their buy-sell orders are not front-run. This can be achieved by looking for systematic second-by-second price movements prior to the execution of their orders. If they cannot conduct such a study on their own, clients may require the se-

curities firm to compile and report such patterns. In addition, as part of their business relations with the securities firm, clients should require immediate disclosure of all trading conducted by the firm in its own securities—whether proprietary trading, retail trading, risk-arbitrage, or market-making. Changes in the market-maker's inventory position are also useful in this regard. Similarly, client firms should require the securities firm to report any recommendation, evaluation, or forecasting involving its own securities.

In addition, client firms should request any information regarding their own securities about either placement or removal from "watch" list, "grey" list, "restricted" list, or "rumor" list. It is also important to discover the significance of the meaning of these lists at each securities firm. While many firms restrict trading for all employees, some firms only restrict certain employees and allow others to trade. Such information is necessary to ensure that minimum precautions for safeguarding confidential information are taken.

REFERENCES

Amihud, Y., and H. Mendelson. 1986. Asset pricing and the bid-ask spread. *Journal of Financial Economics* 17 (2): 223-49.

Barber, B., R. Lehavy, M. McNichols, and B. Trueman. 2006. Buys, holds, and sells: the distribution of investment banks' stock ratings and the implications for the profitability of analysts recommendations. *Journal of Accounting and Economics* 41 (1-2): 87-117.

Barclay, M., and C. Smith. 1988. Corporate payout policy: cash dividends versus open-market repurchases. *Journal of Financial Economics* 22 (1): 61-82.

Benston, G., and R. Hagerman. 1974. Determinants of bid-ask spreads in the over-the-counter market. *Journal of Financial Economics* 1 (4): 353-64.

Ber, H., Y. Yafeh, and O. Yosha. 2001. Conflict of interest in universal banking: bank lending, stock underwriting and fund management. *Journal of Monetary Economics* 47 (1): 189-218.

Box, G., and G. Jenkins. 1976. *Time Series Analysis, Forecasting, and Control.* San Francisco: Holden-Day Co.

Bradshaw, M., S. Richardson, and R. Sloan. 2006. The relation between corporate financing activities, analysts' forecasts and stock returns. *Journal of Accounting and Economics* 42 (1-2): 53-85.

Brown, S., and J. Warner. 1980. Measuring security price performance. *Journal of Financial Economics* 8 (3): 205-58.

—— 1985. Using daily stock returns: the case of event studies. *Journal of Financial Economics* 14 (1): 3-31.

Carlton, D., and D. Fischel. 1983. The regulation of insider trading. *Stanford Law Review* 35 (3): 857.

Chan, L., J. Karceski, and J. Lakonishok. 2007. Analysts' conflicts of interest and biases in earnings forecasts. *Journal of Financial and Quantitative Analysis* 42 (4): 893-913.

Copeland, T., and D. Galai. 1983. Information effects on the bid-ask spread. *Journal of Finance* 38 (5): 1457-69.

Finnerty, J. 1976. Insiders and market efficiency. *Journal of Finance* 31 (4): 1141-8.

Gande, A., M. Puri, A. Saunders, and I. Walter. 1997. Bank underwriting of debt securities: modern evidence. *Review of Financial Studies* 10 (4): 1175-1202.

Gasparino, C. 2005. *Blood on the street: the sensational inside story of how Wall Street analysts duped a generation of investors.* New York: Free Press.

Glosten, L. 1987. Components of the bid-ask spread and the statistical properties of transaction prices. *Journal of Finance* 42 (5): 1293-1307.

Glosten, L., and L. Harris. 1988. Estimating the components of the bid-ask spread. *Journal of Financial Economics* 21 (1): 123-42.

Glosten, L., and P. Milgrom. 1985. Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics* 14 (1): 71-100.

Gompers, P., and J. Lerner. 1999. Conflicts of interest in the issuance of public securities: evidence from venture capital. *Journal of Law and Economics* 42 (1): 1-28.

Hamao, Y., and T. Hoshi. 2000. Bank underwriting of corporate bonds: evidence from Japan after the financial reform of 1993. Working paper, University of Southern California. Los Angeles, California.

Hirschey, M., and J. Zaima. 1989. Insider trading, ownership structure, and the market assessment of corporate sell-offs. *Journal of Finance* 44 (4): 971-80.

Ho, T. S. Y., and H. R. Stoll. 1981. Optimal dealer pricing under transactions and return uncertainty. *Journal of Financial Economics* 9 (1): 47-73.

Jaffe, J. F. 1974. Special information and insider trading. *Journal of Business* 47 (3): 410-28.

—— 1974. The effect of regulation changes on insider trading. *Bell Journal of Economics and Management Science* 5 (1): 93-121.

James, C., and J. Karceski. 2006. Strength of analysts coverage following IPOs. *Journal of Financial Economics* 82 (1): 1-34.

Klein, P. G., and K. Zoeller. 2003. Universal banking and conflicts of interest: evidence from German initial public offerings. Working paper, Contracting and Organizations Research Institute. Columbia, Missouri.

Kolasinski, A. 2006. Is the Chinese Wall too high? Investigating the costs of new restrictions on cooperation between analysts and investment bankers. Working paper, University of Washington Business School. Seattle, Washington.

Kroszner, R., and R. Rajan. 1994. Is the Glass-Steagall Act justified? A study of the U.S. experience with universal banking before 1933. *American Economic Review* 84 (4): 810-32.

Kroszner, R., and P. E. Strahan. 2001. Bankers on boards: monitoring, conflicts of interest, and lender liability. *Journal of Financial Economics* 62 (3): 415-52.

Kyle, A. S. 1985. Continuous auctions and insider trading. *Econometrica* 53 (6): 1315-35.

Lehar, A., and O. Randl. 2006. Chinese Walls in German banks. *Review of Finance* 10: 301-10.

Lee, D. S., W. H. Mikkelson, and M. M. Partch. 1992. Managers' trading around stock repurchases. *Journal of Finance* 47 (5): 1947-61.

Malmendier, U., and D. Shanthikumar. 2008. Are small investors naïve about incentives? Forthcoming, *Journal of Financial Economics*.

McVea, H. 1993. *Financial conglomerates and the Chinese Walls: regulating conflicts of interest.* Oxford: Clarendon Press.

Mehran, H., and R. Stulz. 2006. The economics of conflicts of interest in financial institutions. Working paper, Fisher College of Business. Columbus, Ohio.

Michaely, R., and K. Womack. 1999. Conflict of interest and the credibility of underwriter analyst recommendations. *Review of Financial Studies* 12 (4): 653-86.

New York Attorney General. 2002. SEC, NY Attorney General, NASD, NASAA, BYSE and state regulators announce historic agreement to reform investment practices - $1.4 billion global settlement includes penalties and funds for investors. Press release (December 20). http://www.oag.state.ny.us/press/2002/dec/dec20b_02.html (last visited May 27, 2008).

O'Brien, P. C., M. McNichols, and H. Lin. 2005. Analyst impartiality and investment banking relationship. *Journal of Accounting Research* 43 (4): 623-50.

Penman, S. H. 1982. Insider trading and the dissemination of firms' forecasting information. *Journal of Business* 55 (4): 479-503.

Puri, M. 1996. Commercial banks in investment banking: conflict of interest or certification role. *Journal of Financial Economics* 40 (3): 373-401.

Roll, R. 1984. A simple implicit measure of the effective bid-ask spread in an efficient market. *Journal of Finance* 39 (4): 1127-39.

Schonfeld, E. 2000. Misadventures in the me-first economy: the high price of research. *Fortune* (March 30, 141).

Seyhun, H. N. 1986. Insiders' profits, costs of trading, and market efficiency. *Journal of Financial Economics* 16 (2): 189-212.

—— 1998. *Investment intelligence from insider trading.* Cambridge, Massachusetts: MIT Press.

Stoll, H. 1989. Inferring the components of the bid-ask spread: theory and empirical tests. *Journal of Finance* 44 (1): 115-34.

APPENDIX 1

A brief History of Chinese Walls

Chinese Walls—first publicized in a Merrill Lynch policy statement—were the result of securities firms' own concerns for fairness. In addition to increasing investor confidence, Chinese Walls would serve as a defense in litigation alleging conflicts of interest or dereliction of fiduciary responsibility.[16] This concept of compartmentalizing information was subsequently incorporated into exchange regulations for the New York Stock Exchange (NYSE) and American Stock Exchange (AMEX).[17] Specifically, Rule 98 of the NYSE Regulations requires that market-making activities be *physically and functionally* separated from all advisory, corporate finance, and underwriting activities. Hence, the market-making functions must be separated from all other member firms' activities, including physical location, organization, management influence, management compensation, bookkeeping, financial accounting, and capital requirements. Moreover, any information derived from clearing and margin financing arrangements, trading activities of the approved person, and specialists' books must remain confidential and may not be disclosed to the rest of the member firm. Similarly, any information derived from business transactions with the issuer must be kept confidential.

In 1988, the concept of Chinese Walls was given statutory recognition in the United States with the passage of the Insider Trading and Securities Fraud Enforcement Act (ITSFEA) of 1988.[18] The subsection 15(f) of ITSFEA reads:

> Every registered broker or dealer shall establish, maintain, and enforce written policies and procedures reasonably designed, taking into consideration the nature of such broker's or dealer's business, to prevent the misuse in violation of this title, or the rules or regulations thereunder, of material, nonpublic information by such broker or dealer or any person associated with such broker or dealer. The Commission, as it deems necessary, shall adopt regulations to require specific policies or procedures reasonably designed to prevent misuse in violation of this title of material nonpublic information.

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[16] Harry McVea (1993) also describes policies and procedures that ought to be part of the Chinese Walls: (i) compliance manual publication, (ii) systematic identification of risk areas, (iii) procedures to address risks, (iv) compliance responsibilities, (v) routine monitoring, (vi) contingency plans in case of accidental breach, (vii) ongoing education programs, (viii) regulatory links, (ix) encouraging timely client disclosure of price sensitive information, (x) procedures to recognize when information has bypassed the Wall, and (xi) trading records for auditing purposes (McVea 1993).

[17] The SEC gave approval to NYSE and AMEX rule changes in 1987. See SEC Rel. No. 34-23768.

[18] In 1980, using its rule making authority, SEC had already provided a Chinese Wall exemption from liability for securities trading subject to a tender offer in possession of material information by promulgating Rule 14e-3(b). See 17 C.F.R § 240.14e-3(b).

Due to the deregulation of financial services firms, Chinese Walls recently gained additional importance. Legislation enacted in 1999 ended most Glass-Steagall proscriptions against commercial banks and has allowed the banks freedom to merge with insurance firms and investment banks.[19] This legislation replaced the Glass-Steagall Act's strict prohibitions and relies on the enactment and enforcement of the Chinese Walls to avoid potential conflicts of interest.

[19] Legislation singed into law by President Clinton on November 5, 1999 repealed the barriers between banks, insurance companies, and securities firms. See 12 C.F.R. § 225.28, 86-92.

APPENDIX 2

Event Study Methodology

Given the minimal explanatory power of betas, this study uses market adjusted returns to compute the prediction errors, $PE_{i,t}$:

$$(1) \qquad PE_{i,t}=(r_{i,t}-r_{m,t})H_{i,t} \qquad t = -35 \text{ to } +36$$

where $r_{i,t}$ is the simple with-dividend return to security *i* on month *t* and $r_{m,t}$ is the simple with-dividend return to the equally-weighted portfolio of all New York Stock Exchange (NYSE), American Stock Exchange (ASE), and NASDAQ stocks on month *t*. For equally-weighted abnormal profits, the parameter $H_{i,t}$ is equal to 1 if the number of shares purchased exceeds the number of shares sold in that month *t*, or -1 if the number of shares sold exceeds the number of shares purchased. If no shares are traded or if the number of shares purchased equals the number of shares sold, then month *t* is excluded. For share-weighted abnormal profits, the parameter $H_{i,t}$ is equal to the ratio of shares traded in firm *i*, month *t* divided total net number of shares traded by insiders in firm *i*. The sign of $H_{i,t}$ is positive if insiders buy shares in firm *i* and month *t* and the sign of $H_{i,t}$ is negative if insiders sell shares in firm *i* and month *t*.

The average portfolio prediction error in firm *i* for event month *t*, $APE_{i,t}$, is the weighted averages of all prediction errors from Equation (1) for that event month:

$$(2) \qquad APE_{i,t}=\left(\sum_{j=1}^{312} PE_{i,t}\right) \qquad t = -35 \text{ to } +36$$

and

$$(3) \qquad APE_{t}=\left(\sum_{i=1}^{K_t} APE_{i,t}\right)/K_{t} \qquad t = -35 \text{ to } +36$$

where K_t equals the number of prediction errors in month *t*. Insiders' abnormal profits are computed by weighting prediction errors with the number of shares traded. The procedure described in (2) and (3) ensures that proportionately greater weight is given to larger volume inside trading, but at the same time, since each firm received equal representation in the overall results, a single outlier does not dominate the overall evidence. There are a total of 312 months from January 1975 to December 2000. The cumulative gross abnormal profit from exploiting insider trading information is measured by the cumulative monthly average prediction error from event month 1 (the month following the month in which insiders trade) to T,

CAP_T), which is calculated by summing the monthly average prediction errors:

$$(4) \qquad CAP(T)=\Sigma_{t=1}^{T} APE_t$$

To retain as much information as possible, the study includes all open-market transactions by the firms' insiders that are represented in the sample. The standard errors of the gross abnormal profits are measured by taking into account the sample serial correlation of the time series of abnormal returns. The general formula for the variance of a sum is used to compute the standard error of the gross abnormal profits. Hence:

$$(5) \qquad s(CAP(T)=[\ \Sigma_{i=1}^{T-t+1} \Sigma_{j=1}^{T-t+1} cov(APE_i, APE_j)\ ]^{1/2}$$

where covariance between APE_i and APE_j, $cov(APE_i, APE_j)$, is estimated from a third order, unconstrained autoregressive model for APE_t using Box and Jenkins (1976) methods. The estimated model for APE_t is represented as follows:

$$(6) \qquad APE_t=\delta_0+\delta_1 D+\phi_1 APE_{t-1}+\phi_2 APE_{t-2}+\phi_3 APE_{t-3}+\eta t$$

where indicator variable D equals 1 for the six months prior to the insider trading month, and 0 otherwise. The indicator variable D—accounting for the differences in mean abnormal returns before and after the insider trading month—is necessary because insider sales tend to follow price increases while insider purchases follow price declines. Consequently, the sign of APE adjusts the insider trading month from negative to positive. For each model using (6), the Box-Pierce Q statistics at lags 6, 12, and 18 are insignificant, indicating that the residuals, h_t, are serially uncorrelated.

The methodology described above takes into account whatever serial and cross sectional correlations of stock returns there may be. Hence my procedure makes minimal assumptions about properties of stock returns. In addition, given my procedure, usual caveats such as event time clustering or sector clustering would not cause bias in my estimates of standard errors.

Distribution of Multi-Service Securities Firms Across Client Firm Size Groups						
	Client firm size groups					
Multi-Service Securities Firm Maintains	*Less than $25 Million*	*Between $25 and $100 Million*	*Between $100 and $500 Million*	*Between $500 Million and $1 Billion*	*More than $1 Billion*	*All Firms*
Officers	6	9	5	0	2	22
Directors	154	110	96	22	36	418
Large Shareholdership	25	17	22	6	6	76
Trustee and other	16	7	2	3	6	34
Total Representatives	201	143	125	31	50	550
Number of Client Firms	188	131	116	28	46	509
Average client firm size ($million)	$10.3	$53.5	$220.3	$753.4	$5,977.3	$655.8

Multi-service securities firms refer to those firms who make a market in the client firm's securities as well as maintain an advisory role through its directors and officers placed inside the client firm. The sample is restricted to CRSP firms.

Table 1

Investment Banking and Options-Exchange Listing Activity					
Period	*Number of Initial Public Offerings*	*Average dollar amount of proceedings*	*Number of Seasoned Equity Offerings*	*Average dollar amount of proceedings*	*Number of firms listing on an options exchange*
Before the arrival of representatives of securities firms	108	$19.52 Million	239	$23.70 Million	19
Representatives of securities firms are present	1	$33.80 Million	119	$26.90 Million	5
After the departure of the representatives of securities firms	4	$124.27 Million	288	$127.10 Million	33
Client firms are those where a securities firm maintains representatives: typically on the board of directors, or officers placed inside the client firm. The sample is restricted to CRSP firms. Initial public offerings include equity carve-outs.					

Table 2

Distribution of Insider Trading in Client Firms Before, During, and After the Arrival of the Representatives of the Securities Firms							
		Client firm size groups					
Period		*Less than $25 Million*	*Between $25 and $100 Million*	*Between $100 and $500 Million*	*Between $500 Million and $1 Billion*	*More than $1 Billion*	*All Firms*
Before the arrival of representatives of securities firms	*Proportion of (buy, sell)*	(.09, .09)	(.10, .12)	(.14, .20)	(.16, .21)	(.20, .27)	(.13, .17)
	Net shares traded	-137	-1,608	-1,735	-425	7,040	108
	Number of months	3,757	4,386	5,235	1,320	2,714	17,412
Representatives of securities firms are present	*Proportion of (buy, sell)*	(.44, .38)	(.40, .45)	(.35, .46)	(.25, .39)	(.25, .41)	(.38, .42)
	Net shares traded	-382	-2,245	-1,902	-807	-7,843	-1,920
	Number of months	6,025	4,325	4,289	1,070	1,542	17,251
After the departure of the representatives of securities firms	*Proportion of (buy, sell)*	(.07, .06)	(.10, .11)	(.12, .17)	(.11, .20)	(.15, .27)	(.11, .14)
	Net shares traded	-1,590	-7,419	-953	-6,178	-4,961	-3,877
	Number of months	10,608	11,230	10,169	3,211	6,310	41,528
Client firms are those where a securities firm maintains representatives: typically on the board of directors, or officers placed inside the client firm. The sample is restricted to CRSP firms.							

Table 3

Insider Trading Intensity Grouped by Firm Size						
	Client firm size groups					
Securities-Firm Representation	*Less than $25 Million*	*Between $25 and $100 Million*	*Between $100 and $500 Million*	*Between $500 Million and $1 Billion*	*More than $1 Billion*	*All Firms*
(1) With representation	4.03%	2.32%	1.55%	0.93%	0.89%	2.39%
(1a) Before reprensentation	1.59%	1.55%	1.71%	0.80%	1.98%	1.62%
(1b) During the period when representatives are present	11.67%	5.44%	3.95%	4.41%	2.91%	5.77%
(1c) After representation	3.08%	1.94%	1.38%	0.42%	0.54%	1.65%
(2) Without representation	1.88%	1.72%	1.51%	1.21%	0.90%	1.64%
Difference (1a) - (1b)	-10.07% *(0.00)*	-3.88% *(0.00)*	-2.23% *(0.04)*	-3.61% *(0.27)*	-0.93% *(0.38)*	-4.16% *(0.00)*
Difference (1b) - (1c)	8.60% *(0.00)*	3.50% *(0.00)*	2.56% *(0.01)*	3.99% *(0.21)*	2.37% *(0.03)*	4.13% *(0.00)*
Difference (1a) - (1c)	-1.49% *(0.05)*	-0.38% *(0.52)*	0.33% *(0.55)*	0.38% *(0.12)*	1.44% *(0.01)*	-0.03% *(0.92)*
Difference (1) - (2)	2.15% *(0.00)*	0.61% *(0.03)*	0.04% *(0.87)*	-0.29% *(0.48)*	-0.02% *(0.95)*	0.74% *(0.00)*

Intensity of insider trading is computed as the absolute value of net number shares traded by insiders in each calendar month divided by the total share volume in that month. Monthly intensities are then equally averaged across calendar months. In parentheses are p-values for the differences in trading intensities. The sample is restricted to CRSP firms.

Table 4

Corporate Insiders' Abnormal Profits Before the Representatives of the Securities Firms Join						
PANEL A Cumulative Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*Before the representatives of the securities firms join*	*Size and momentum matched control firms without representatives*	*Difference*	*Before the representatives of the securities firms join*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	1.26% *(0.00)*	0.93% *(0.00)*	0.33% *(0.20)*	1.56% *(0.00)*	0.99% *(0.00)*	0.57% *(0.05)*
(1,2)	1.84% *(0.00)*	1.76% *(0.00)*	0.08% *(0.83)*	2.02% *(0.00)*	1.90% *(0.00)*	0.12% *(0.77)*
(1,3)	2.35% *(0.00)*	2.26% *(0.00)*	0.09% *(0.85)*	2.46% *(0.00)*	2.45% *(0.00)*	0.01% *(0.98)*
(1,6)	3.18% *(0.00)*	3.32% *(0.00)*	-0.13% *(0.84)*	3.15% *(0.00)*	3.57% *(0.00)*	-0.42% *(0.56)*
(1,12)	4.96% *(0.00)*	4.32% *(0.00)*	0.64% *(0.48)*	4.86% *(0.00)*	4.65% *(0.00)*	0.24% *(0.81)*
The sample contains 17,412 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 5 (Panel A)

Corporate Insiders' Abnormal Profits Before the Representatives of the Securities Firms Join						
PANEL B Holding Period Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*Before the representatives of the securities firms join*	*Size and momentum matched control firms without representatives*	*Difference*	*Before the representatives of the securities firms join*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	1.26% *(0.01)*	0.93% *(0.05)*	0.33% *(0.72)*	1.56% *(0.01)*	0.99% *(0.05)*	0.57% *(0.56)*
(1,2)	1.79% *(0.01)*	1.75% *(0.01)*	0.05% *(0.99)*	1.98% *(0.01)*	1.90% *(0.01)*	0.07% *(0.99)*
(1,3)	2.47% *(0.01)*	2.26% *(0.01)*	0.22% *(0.85)*	2.53% *(0.02)*	2.46% *(0.02)*	0.08% *(0.95)*
(1,6)	3.67% *(0.00)*	3.36% *(0.01)*	0.32% *(0.85)*	3.70% *(0.01)*	3.65% *(0.01)*	0.05% *(0.98)*
(1,12)	6.17% *(0.00)*	4.50% *(0.00)*	1.67% *(0.60)*	6.40% *(0.01)*	4.90% *(0.01)*	1.51% *(0.72)*
The sample contains 17,412 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 5 (Panel B)

Corporate Insiders' Abnormal Profits during the Period when the Representatives of the Securities Firms are Present						
PANEL A Cumulative Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*During the period when securities firms have representatives present*	*Size and momentum matched control firms without representatives*	*Difference*	*During the period when securities firms have representatives present*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	0.18% *(0.48)*	1.04% *(0.00)*	-0.86% *(0.01)*	0.24% *(0.38)*	1.08% *(0.00)*	-0.84% *(0.01)*
(1,2)	0.16% *(0.64)*	1.97% *(0.00)*	-1.81% *(0.00)*	0.11% *(0.78)*	2.08% *(0.00)*	-1.98% *(0.00)*
(1,3)	0.31% *(0.46)*	2.54% *(0.00)*	-2.23% *(0.00)*	0.30% *(0.52)*	2.69% *(0.00)*	-2.38% *(0.00)*
(1,6)	0.36% *(0.55)*	3.71% *(0.00)*	-3.35% *(0.00)*	0.42% *(0.52)*	3.91% *(0.00)*	-3.49% *(0.00)*
(1,12)	1.11% *(0.20)*	4.87% *(0.00)*	-3.76% *(0.00)*	1.55% *(0.10)*	5.15% *(0.00)*	-3.59% *(0.00)*
The sample contains 17,251 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 6 (Panel A)

Corporate Insiders' Abnormal Profits during the Period when the Representatives of the Securities Firms are Present						
PANEL B Holding Period Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*During the period when securities firms have representatives present*	*Size and momentum matched control firms without representatives*	*Difference*	*During the period when securities firms have representatives present*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	0.18% *(0.70)*	1.04% *(0.04)*	-0.86% *(0.14)*	0.24% *(0.31)*	1.08% *(0.03)*	-0.84% *(0.20)*
(1,2)	0.19% *(0.76)*	1.96% *(0.01)*	-1.77% *(0.11)*	0.06% *(0.34)*	2.09% *(0.01)*	-2.02% *(0.07)*
(1,3)	0.30% *(0.61)*	2.53% *(0.01)*	-2.22% *(0.08)*	0.19% *(0.27)*	2.69% *(0.01)*	-2.50% *(0.08)*
(1,6)	0.22% *(0.57)*	3.75% *(0.00)*	-3.53% *(0.06)*	0.27% *(0.27)*	4.00% *(0.00)*	-3.73% *(0.07)*
(1,12)	0.87% *(0.18)*	5.03% *(0.00)*	-4.15% *(0.10)*	1.04% *(0.10)*	5.38% *(0.00)*	-4.32% *(0.11)*
The sample contains 17,251 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 6 (Panel B)

Corporate Insiders' Abnormal Profits After the Departure of the Representatives of the Securities Firms						
PANEL A Cumulative Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*After the departure of representatives*	*Size and momentum matched control firms without representatives*	*Difference*	*After the departure of representatives*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	0.80% *(0.02)*	0.92% *(0.00)*	-0.11% *(0.70)*	1.10% *(0.00)*	0.99% *(0.00)*	0.11% *(0.74)*
(1,2)	1.95% *(0.00)*	1.69% *(0.00)*	0.26% *(0.52)*	2.20% *(0.00)*	1.85% *(0.00)*	0.35% *(0.45)*
(1,3)	2.42% *(0.00)*	2.16% *(0.00)*	0.26% *(0.59)*	2.81% *(0.00)*	2.37% *(0.00)*	0.44% *(0.43)*
(1,6)	3.49% *(0.00)*	3.16% *(0.00)*	0.33% *(0.64)*	3.84% *(0.00)*	3.44% *(0.00)*	0.40% *(0.62)*
(1,12)	3.95% *(0.00)*	4.09% *(0.00)*	-0.14% *(0.88)*	3.61% *(0.03)*	4.41% *(0.00)*	-0.80% *(0.48)*
The sample contains 41,528 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 7 (Panel A)

Corporate Insiders' Abnormal Profits After the Departure of the Representatives of the Securities Firms						
PANEL B Holding Period Abnormal Returns						
	Equally-weighted abnormal profits			*Share-weighted abnormal profits*		
Holding Period Months	*After the departure of representatives*	*Size and momentum matched control firms without representatives*	*Difference*	*After the departure of representatives*	*Size and momentum matched control firms without representatives*	*Difference*
(1)	0.80% *(0.05)*	0.92% *(0.03)*	-0.11% *(0.84)*	1.10% *(0.05)*	0.99% *(0.06)*	0.11% *(0.90)*
(1,2)	1.84% *(0.01)*	1.68% *(0.01)*	0.18% *(0.82)*	2.03% *(0.01)*	1.85% *(0.03)*	0.18% *(0.90)*
(1,3)	2.53% *(0.01)*	2.15% *(0.02)*	0.39% *(0.82)*	2.77% *(0.03)*	2.38% *(0.04)*	0.40% *(0.78)*
(1,6)	3.66% *(0.00)*	3.22% *(0.00)*	0.44% *(0.86)*	4.05% *(0.01)*	3.54% *(0.02)*	0.53% *(0.79)*
(1,12)	3.58% *(0.00)*	4.30% *(0.00)*	-0.68% *(0.80)*	3.67% *(0.01)*	4.74% *(0.00)*	-1.02% *(0.80)*
The sample contains 41,528 transactions by insiders in 509 firms. The p-values are shown in parentheses.						

Table 7 (Panel B)

Bid-Ask Spreads Before the Arrival, During the Period when the Representatives are on Board, and After the Departure of the Representatives of Securities Firms						
	Client firm size groups					
Representation by Securities Firms	*Less than $25 Million*	*Between $25 and $100 Million*	*Between $100 and $500 Million*	*Between $500 Million and $1 Billion*	*More than $1 Billion*	*All Firms*
Before representatives join the client firm	13.72%	6.86%	3.16%	1.99%	1.98%	7.74%
Representatives are on board	6.30% *(0.0001)*	2.60% *(0.0001)*	1.58% *(0.0001)*	0.80% *(0.0002)*	0.85% *(0.0005)*	3.60% *(0.0001)*
After representatives depart from the client firm	14.44% *(0.0001)*	5.23% *(0.0001)*	3.44% *(0.0001)*	1.41% *(0.0210)*	1.13% *(0.2924)*	7.33% *(0.0001)*
Number of firms	188	131	116	28	46	509
The sources of the bid-ask spread information are ISSM files, TAQ files, and CRSP tapes. In parentheses are the p-values for the difference in bid-ask spreads in that period minus that of the period before the representatives of securities firms join the client firm.						

Table 8

Daily Variances of Stock Returns Before the Arrival, During the Period when the Representatives are on Board, and After the Departure of the Representatives of Multi-Service Securities Firms						
	Client firm size groups					
Representation by Securities Firms	*Less than $25 Million*	*Between $25 and $100 Million*	*Between $100 and $500 Million*	*Between $500 Million and $1 Billion*	*More than $1 Billion*	*All Firms*
Before representatives join the client firm	0.001775	0.001166	0.000855	0.000483	0.000542	0.001161
Representatives are on board	0.000977 *(0.0118)*	0.000584 *(0.1017)*	0.000473 *(0.3120)*	0.000299 *(0.0590)*	0.000202 *(0.0001)*	0.000646 *(0.0027)*
After representatives depart from the client firm	0.002934 *(0.0001)*	0.002595 *(0.0001)*	0.002122 *(0.0001)*	0.000489 *(0.0411)*	0.000467 *(0.0018)*	0.002254 *(0.0001)*
Number of firms	188	131	116	28	46	509

Daily variances of stock returns are computed from the CRSP tapes. In parentheses are the p-values for the difference in daily variances in that period minus that of the period before the representatives of securities firms join the client firms.

Table 9

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EVIDENCE ON THE NON-LINEAR RELATION BETWEEN INSIDER TRADING DECISIONS AND FUTURE EARNINGS INFORMATION

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ABSTRACT

In this paper, we explore an insider's decision to trade or not trade on the basis of future earnings information. Consistent with litigation, political and reputation-related costs shaping insider-trading decisions, we find that the relations between insider trading decisions and next year's earnings change are not strictly linear. First, we find that the likelihood of insider purchases is positively related to next year's earnings innovation, yet this relation is attenuated in the case of extreme positive innovations. Second, we find that the likelihood of an insider selling shares and exercising stock options is negatively related to next year's earnings innovation, yet this relation is attenuated in the case of extreme negative innovations. The non-linear relation between insider sales and future negative earnings news is more pronounced than the nonlinearity between insider purchases and future earnings news, suggesting that the expected costs associated with insider selling are economically larger than the costs associated with insider buying. Together, these estimations suggest that insiders trade on the basis of future earnings news, yet there exist regions where the expected costs of

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trading subsume the expected gains to trading on private information. Finally, we investigate the role of earnings persistence as an alternate explanation for our results. We find that insiders only trade on persistent earnings innovations, and that, after controlling for persistence, insiders still curtail trading when earnings innovations are extreme.

I. INTRODUCTION

This paper examines whether an insider's decision to trade is influenced by the firm's future earnings performance. Prior research shows that, conditional on observing insider trading, net trading activity is positively related to future earnings innovations. However, insiders can choose to not change their level of investment in the firm—i.e., not trade on the basis of private information. We investigate the role of future earnings in this trade—no trade decision.

Theoretically, insider trading will only be observed when the expected gains to trade exceed the expected costs. We hypothesize that if legal liability, political and reputation-related trading costs are heightened around extreme earnings changes, then there could exist regions where insiders avoid trading despite the existence of private, price-relevant earnings information. Consistent with the existence of such "no trade" regions, we find that the relation between insider trading decisions and next year's earnings change is not strictly linear. First, the likelihood of insider buying is positively related to next year's earnings change, yet the positive relation between insider purchases and next year's earnings change is attenuated among larger positive innovations. This attenuation in the presence of extreme good news is consistent with increasing trading costs.

Second, we find that the likelihood of insider selling is negatively related to next year's earnings change, yet extreme earnings events, regardless of sign, inhibit insiders from engaging in these sales. Specifically, in advance of bad news, insiders appear to curtail sales to avoid the appearance of impropriety. The attenuation of the relation between insider selling and extreme negative earnings changes is more pronounced than the attenuation of the relation between insider purchases and extreme positive earnings changes, suggesting that the perceived legal, political and reputation-related costs associated with insider selling are economically larger than the costs associated with insider buying. Similar inferences exist with respect to an insider's decision to exercise stock options (and sell shares) versus continuing to hold the options.

We conclude that insiders do trade in anticipation of future earnings news, yet there exist regions beyond which insiders will not trade regardless of the potential gains associated with either future stock price appreciation or avoidance of future losses. This observed non-linearity in the relation between trading decisions and future earnings information is consistent with the existence of potential legal, political and/or reputation costs deter-

ring informed trade. However, an alternate explanation is that extreme positive and negative earnings innovations are less persistent than non-extreme innovations. If insiders only trade on persistent changes in firm performance, then the non-linear relation between insiders' decisions to trade and earnings innovations may be due to variation in the persistence of the earnings innovation. We find that when our sample is split into persistent (consecutive earnings innovations of the same sign) versus non-persistent (consecutive earnings innovations of differing signs), insiders only trade on persistent earnings innovations. Within persistent earnings innovations, extreme innovations continue to attenuate the relation between earnings changes and trading decisions. Thus, after controlling for earnings persistence, expectations of heightened legal liability continue to inhibit trading ahead of extreme earnings news.

The rest of the paper is organized as follows. Section II provides background on insider trading research and outlines the primary hypothesis of this study. Section III discusses the methodology and the data, while Section IV presents descriptive evidence on firm-years with and without insider trading. Section V presents our main empirical tests, and Section VI addresses our robustness tests. Section VII concludes.

II. PRIOR RESEARCH AND HYPOTHESIS DEVELOPMENT

A. *Prior Research on Insider Trading*

Given the *ex post* profitability of insider transactions, early research concludes that insiders' information advantage allows them to trade in advance of future price movements (Jaffe 1974; Givoly and Palmon 1985; Seyhun 1986; Rozeff and Zaman 1988). Subsequent research documents that insiders trade in advance of significant corporate events associated with predictable pricing behavior, such as merger and acquisition activity (Meulbroek 1992; Seyhun 1990), bankruptcy (Seyhun and Bradley 1997), dividend initiations (John and Lang 1991), seasoned equity offerings (Karpoff and Lee 1991) and share repurchase activity (Lee, Mikkelson and Partch 1992).[1] Finally, recent research suggests that insiders recognize the relative valuation of their firm's securities and trade in advance of predictable price corrections. For example, Seyhun (1992) shows that insiders are more likely to sell (purchase) shares following periods of significant price appreciation (decline), while Rozeff and Zaman (1998) show that, given the

[1] It is important to note that, in most of these event studies, the benefits to trade can be quite large. For example, one-year returns following seasoned equity offerings have been shown to be approximately negative fifteen percent (e.g., Loughran and Ritter 1995). Given that we observed heightened trading in advance of these events, it must be the case that these trading benefits subsume the potential costs of trading on this information.

decision to trade, insiders predominantly buy (sell) shares in value (glamour) firms. Together, these papers demonstrate that insiders trade in advance of events leading to significant price changes and provide support for Manne's (1966) observation that insider trading can be a source of information to the market.

A complementary set of research examines the relation between insider trading and one type of price-relevant, firm-specific information: future earnings. Executives and directors are insiders of the firm who (1) possess value relevant financial information before it is priced and (2) face less uncertainty about the firm's future financial performance outcomes than the average market participant does. Given this informational advantage, insiders should engage in more purchasing (or selling) activity in advance of strong (or weak) firm-specific earnings news, *ceteris paribus*.

Early research examining the relation between insider trading and future earnings information, however, provides mixed evidence. Elliott, Morse and Richardson (1984) find that insiders increase (decrease) their purchases (sales) in the twelve months before extreme earnings increases, yet find little evidence that insiders sell in advance of extreme earnings decreases. In contrast, Huddart, Ke and Petroni (2003) find insiders' sales increase in the year before a firm experiences a break in consecutive quarterly earnings increases, while Billings (2007) finds that insiders selling shares in advance of significant price declines delay the release of bad earnings news. Givoly and Palmon (1985) are unable to document a link between insider trading profits and specific disclosure events (including earnings and dividend announcements), while Noe (1999) examines insider trading around management forecasts of earnings and finds the trading patterns to be unrelated to the forecasted earnings news.

Unfortunately, these studies are predicated on examining insider-trading behavior around specific earnings-related events, where the litigation and reputation-related costs of trading are likely to be heightened. To eliminate these confounding effects, Piotroski and Roulstone (2005) search for a general cross-sectional relation between the sign of observed insider trading activity and one-year-ahead earnings changes. Conditional on the existence of insider trading, they find a positive relation between the relative amount of insider purchase activity versus sale activity and next year's earnings change. They also find that the strength of the relation between insider trading and future earnings is inversely related to the firm's information-processing environment. Similarly, Beneish and Vargus (2002), show that insiders evaluate the quality of their firms' current earnings innovation when making their trading decisions. They find that managers are more likely to buy (sell) their firms' securities when current earnings is driven by permanent (transitory) positive accruals. Together, Piotroski and Roulstone (2005) and Beneish and Vargus (2002) show that insiders' trading decisions are influenced, at least in part, by their private expectations about next year's earning realization.

B. *Hypothesis Development: Non-Linear Relation between Insider Trading and Future Earnings*

The probability of an insider purchasing shares is likely to be positively influenced by the sign and magnitude of expected future earnings news. Specifically, insiders are more likely to buy shares in advance of good future earnings news, with stronger trading incentives for larger innovations, *ceteris paribus*. Similarly, the probability of an insider selling shares is likely to be negatively related to the sign and magnitude of future earnings innovations. Thus, absent trading costs, net gains to trading are monotonically related to the magnitude of next year's unexpected earnings innovation.[2]

However, insiders do not have to trade in a given year. If the costs to trading on future earnings news are sufficiently large and exceed the expected benefits from trading, insiders will not trade. One potential cost of an insider transaction is legal liability risk. If an insider trades in advance of material information that he had a duty to disclose then the insider could face potential legal costs associated with his trade. Additionally, trading in advance of a material earnings change could draw greater regulatory or investor scrutiny, resulting in adverse political or reputation effects. For example, an insider's transaction has a greater probability of being scrutinized and "red flagged" as having been motivated by private information if the trade is subsequently followed by large earnings surprise and material price change.

If these expected trading costs are increasing with the magnitude of subsequent earnings news then managers will have an increasing incentive *to not trade* the greater the magnitude of the earnings innovations. In the presence of these trading costs, we predict that the relation between the likelihood of insider trading and next year's earnings innovation is not strictly linear.

> *Alternate Hypothesis*: The association between insider sales and stock option exercises (purchases) and large negative (positive) earnings innovations is attenuated due to potential legal liability costs associated with trading on extreme transactions.

Our alternate hypothesis predicts that despite possessing information about future earnings insiders will have an increased incentive to forego trading on extreme earnings news. This prediction assumes that the potential costs of trading on such information are sufficiently large and subsume

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[2] This relation hinges on the assumption that the pricing implications of an earnings change is positively related to the magnitude of the change. We address the issue of differential levels of persistence in Section VI.

the trading benefits. As such, we recognize that our tests are really examining a joint hypothesis about both the managerial response to the costs and benefits of insider trading and the existence of sufficiently credible legal liability, political and reputation-related costs to deter trading.

III. RESEARCH DESIGN

A. *Sample Selection*

Our sample is derived from the complete set of firm-year observations available from the Center for Research in Security Prices (CRSP) and COMPUSTAT between 1996 and 2004 with sufficient stock price and earnings data to compute current and one-year ahead annual earnings and price changes. For each firm-year observation identified through CRSP and COMPUSTAT we gather annual information about the insiders' open-market trading activity through Thomson Financial First Call Insiders Data (formerly CDA/Investnet). We restrict our measurement of insider trading activity to activity by a firm's executives and directors for comparability with prior research.

B. *Measurement of Insider Trading Activity*

Our tests examine the relationship between insider trading decisions and next year's earnings innovation. In our tests, we examine four different dimensions of insider trading activity: TRADE, PURCHASE, SALES, and EXERCISE. The first dimension is whether or not trading occurred in a given year. The indicator variable $TRADE_{i,t}$ equals 1 if any insider of firm *i* bought or sold securities on the open market during fiscal year *t*, 0 otherwise. Our first set of tests identifies firm characteristics associated with the presence of insider trading activity irrespective of the direction of trade.

The second set of tests examines the insider's decision to trade in a given direction (as opposed to not trading in that direction). The first "direction of trade" construct we examine is whether or not insiders are net purchasers of shares during fiscal year *t*. We define the indicator variable $PURCHASE_{i,t}$ to equal 1 if any insider of firm *i* purchased shares in an open-market transaction during year *t and* total shares purchased by insiders is greater than or equal to total shares sold by insiders; 0 otherwise. Analogously, the second "direction of trade" construct we examine is whether insiders are net sellers of shares during fiscal year *t*. We define the indicator variable $SALES_{i,t}$ to equal 1 if any insider of firm *i* sold shares in an open-market transaction during year *t* and total shares sold by insiders is greater than total shares purchased by insiders, 0 otherwise. Our final con-

struct measures stock option exercises by insiders during year t. We define the indicator variable $EXERCISE_{i,t}$ equal to 1 if any insider exercised stock options during the year; 0 otherwise. We expect that incentives for insiders to sell shares and to exercise options will be positively related (i.e., negative information about future prospects will induce insiders to both exercise options and sell existing holdings of stock).[3] Our second set of tests identifies firm characteristics associated with the specific direction of insider trading.[4]

C. *Measurement of Future Earnings Performance and Related Earnings Attributes*

The primary focus of our paper is to examine the impact future earnings has on an insider's decision to trade or not trade in a given fiscal year. To characterize the insider's private information about future earnings, we measure two dimensions of profitability: next year's annual earnings innovation and the presence of special, one-time items.

We define the firm's future earnings performance as earnings for the fiscal year *following* the measurement of insider trading behavior (i.e., year t+1). (See Figure 1 for a timeline on the measurement of our variables). Specifically, we define *future earnings news* as year t+1's annual earnings change, measured as:

$$\Delta E_{t+1} = \frac{E_{t+1} - E_t}{ASSETS_t}$$

where E_{t+1} (E_t) equals net income before extraordinary items for fiscal year t+1 (year t) and $ASSETS_t$ equals total assets at the end of year t. We define the *absolute information content* of the future earnings realization as the absolute value of ΔE_{t+1}. We focus on next year's annual earnings innovation given the results in Piotroski and Roulstone (2005).[5]

Our legal liability arguments suggest that managers will be averse to trading in advance of large changes in earnings that draws the attention of investors and regulators. One such dimension of an extreme earnings

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[3] To ensure our measures of sales and option exercises do not overlap, insider sales do not include transactions that are flagged by Thomson Financial as "option related."

[4] Although our main tests use indicator variables for the presence of trading, our results are robust to measuring trading using the number of shares traded. These results are discussed in Section VI.C.

[5] We refer to our earnings change variable as the "news" or "innovation" in earnings in the following sense: annual earnings follow a random-walk process (Watts and Leftwich 1977). In a random walk, the innovation in the process is simply the change in successive observations, which is the numerator of our earnings change variable.

change is to examine the absolute magnitude of the innovation itself (i.e., $|\Delta E_{t+1}|$). An alternative dimension is to determine whether or not future earnings contain a significant, non-recurring special item (such as the recording of a restructuring or acquisition-related charge). We define the indicator variable $SPECIAL_{i,t+1}$ to equal 1 if the firm reported a special item during fiscal year t+1, 0 otherwise. For completeness, we also identify whether or not the firm recorded a special item in the year of insider trading activity (i.e., year t).

If insiders use future earnings information when forming their decision to trade, then we would expect to document a positive (negative) relationship between $PURCHASE_{i,t}$ ($SALES_{i,t}$ and $EXERCISE_{i,t}$) and ΔE_{t+1}. To the extent that managers are concerned about the legal liability implications of trading in advance of extreme earnings news, then the absolute magnitude of next year's earnings change and the presence of a special, one-time charge should decrease the probability of insider trading activity (i.e., $TRADE_{i,t}$). To the extent that legal liability concerns outweigh the expected gains from trading on large earnings changes, we would expect to see an inverse relation between extreme positive (negative) earnings news and $PURCHASE_{i,t}$ ($SALES_{i,t}$ and $EXERCISE_{i,t}$). Our multivariate tests examine these predicted relations.

Finally, we include next year's market adjusted return ($MARET_{i,t+1}$) in our multivariate tests to control for the errors-in-variables problem associated with using the realized earnings innovation $\Delta E_{i,t+1}$ as a measure of the earnings innovation expected by insiders at the time of their trading decision (see Collins et al. 1994 for details).

D. *Measurement of Insider Trading Activity Explanatory Variables*

Prior research identifies several firm-level constructs that influence whether or not insiders trade in their firm's securities: past returns, relative valuation (i.e., book-to-market ratio), the existence of stock-based compensation activity, firm size and the presence of R&D activities. We also examine the relation between insider trading decisions and earnings variability, the presence of special items, and next year's annual earnings innovation. We present our motivation for and measurement of our explanatory variables in the following paragraphs.

1. Past returns

Seyhun (1992) and Rozeff and Zaman (1998) show that insiders are more likely to buy (sell) shares after significant stock price appreciation (decline). Based on their findings, we expect that the probability of observing insider trading increases with the absolute magnitude of the firm's recent return, while the decision to buy (sell) securities should be positively

(negatively) related to past returns realizations. To be comparable with Rozeff and Zaman (1998) and Piotroski and Roulstone (2005), we control for the effect of recent price movements by measuring the firm's contemporaneous market-adjusted stock return ($MARET_{i,t}$). $MARET_{i,t}$ is measured as the firm's twelve-month buy-and-hold return less the twelve-month buy-and-hold value-weighted market index return over the fiscal year corresponding to the measurement of insider trading activity.

2. Valuation attributes (book-to-market ratio)

Rozeff and Zaman (1998) document that, conditional on observing insider trading, an insider's decision to buy (versus sell) securities is inversely related to the firm's relative valuation, as proxied by the firm's book-to-market ratio. To control for insiders' incentives to purchase (sell) undervalued (overvalued) securities, we measure the firm's book-to-market ratio ($BM_{i,t}$) as the firm's book value of common equity scaled by market capitalization of equity at the end of fiscal year *t*. Based on their findings, we expect insiders of firms with high (low) book-to-market ratios to be more likely to engage in buying (selling) activity.

Prior research, however, does not provide any evidence about the role of book-to-market ratios on the decision to trade or not trade. To the extent that both over and under-valuation creates an incentive to trade, $BM_{i,t}$ will discriminate the direction of trade, but will not help identify which insiders are more likely to trade.[6] Alternatively, to the extent that growth firms are systematically more likely to rely on equity-based compensation (either explicitly through stock or option grants or implicitly by encouraging insiders to trade for private gains), one could expect the probability of observing insider trading activity to trade to be inversely related to $BM_{i,t}$. Given the alternative scenarios, we do not have a prediction about the relation between $BM_{i,t}$ and $TRADE_{i,t}$.

3. Stock-based compensation

An insider's trading behavior will be influenced by changes in their holdings due to the granting and exercising of stock options (see Ofek and Yermack 2000). To control for the impact of concurrent compensation-related activity on insider trading decisions, we gather data on two variables measuring changes in insider holdings: number of stock options granted and the number of stock options exercised in year *t*. We define the indicator

[6] Bettis, Coles and Lemmon (2000) examine a set of firms with open market insider transactions and find that the number of trades is inversely related to the firm's book-to-market ratio. However, their sample does not include firms without insider trading activity.

variable $GRANT_{i,t}$ to equal 1 if an insider was granted stock options during year *t*, 0 otherwise. We define the indicator variable $EXERCISE_{i,t}$ to equal 1 if an insider exercised stock options during fiscal year *t*, 0 otherwise. *Ceteris paribus*, we expect that both granting and exercising activity will give insiders an incentive to sell previously held shares in order to rebalance their portfolio and diversify their wealth. This data is gathered through Thomson Financial and is only available for fiscal years 1996 through 2004; as such, this data is the primary constraint on our sample's timeframe.

4. Presence of research and development activities

Aboody and Lev (2000) document that gains to insider trading are larger when the firm is engaged in research and development activities. The positive association between trading gains and R&D activities is attributed to the greater information asymmetry between managers and investors that is present in R&D intensive firms. To control for this fundamental difference in potential trading benefits across firms, we classify firms based on whether or not R&D activities existed during the year of insider-trading measurement. We define the indicator variable $RESEARCH_{i,t}$ to equal 1 if firm *i* reports a non-zero research and development expense during fiscal year *t*, 0 otherwise. Although Aboody and Lev (2000) do not document that insider trading activity is more prevalent in R&D intensive firms, we expect insiders of R&D firms to be more likely to engage in trading activity given the greater gains available to trade, *ceteris paribus*.[7]

5. Firm size

Large firms are more likely to implement stock-based compensation plans (Smith and Watts 1992). These compensation plans will lead to greater liquidity trading by managers. Similarly, securities of large firms tend to be more liquid. Recent theoretical work by Hong and Huang (2002) suggests that an insider's ability to covertly trade and profit from their information is positively related to their firm's share liquidity. Together,

[7] One concern is that our R&D indicator variable may be insufficient to capture meaningful differences in information asymmetry about project outcomes. To the extent that Aboody and Lev's (2000) result is not really driven by R&D *per se*, but instead reflects differences in information asymmetry between firms with assets-in-place versus firm's with growth options, $RESEARCH_{i,t}$ could proxy for the firm's asset-type. Our inclusion of book-to-market ratios in our multivariate tests should capture these asset-type differences. As a control for growth option versus assets-in-place differences, we expect BM_i to display an inverse association with observed insider trading activities.

these arguments would suggest that insider-trading activity is more likely in large firms.[8]

Piotroski and Roulstone (2005) show that the relation between the direction of trade and future earnings news is attenuated (magnified) in large (small) firms. Their result is consistent with firm size as a proxy for both cross-sectional differences in these firm's information environments and the related benefits to trading on earnings information (e.g., Lang and Lundholm 1993) as well as cross-sectional differences in political costs of trading on earnings information (e.g., Watts and Zimmerman 1986).[9] Large firms are also more likely to implement restrictions (or moratoriums) on insider trading activity due to the greater public and regulatory scrutiny large firms garner (Roulstone 2003). Given the reduced benefits of trade and greater potential costs, the decision to trade (as opposed to not trading) could be inversely related to firm size. Given these competing arguments, we do not predict a relation between insider trading and firm size. We measure firm size (MVE_t) as the firm's market capitalization at the end of fiscal year *t*.

6. Variation in earnings

An insider's ability to trade on future earnings information will be a function of their long-term ability to predict future earnings realizations. We assume that firms with greater volatility in their annual earnings innovations possess less predictable earnings. We measure the variable $STDEARN_i$ as the standard deviation of firm *i*'s annual change in earnings ($\Delta E_{i,t}$) over the period 1996 to 2004.

E. *Data Description and Sample Characteristics*

This paper utilizes the complete set of firm-year observations available between 1996 and 2004 with sufficient earnings, stock return, insider-trading and stock-based compensation data. We obtain a final sample of 48,072 firm-year observations. Descriptive statistics are presented in Table 1.

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[8] Consistent with these arguments, Bettis, Coles and Lemmon (2000) show that, for a sample of 403 firms with open-market insider trading activity, both the number of shares traded and the number of shares sold by insiders is increasing in firm size. However, they are unable to document a relation between firm size and the number of shares purchased as they do not examine firms without insider trading activity. In contrast, Frankel and Li (2002) are only able to document a weak relation between number of insider transactions and firm size using a large cross-section of publicly-traded firms.

[9] For example, Collins, Kothari and Rayburn (1985) and Collins and Kothari (1989) show that earnings are impounded earlier in the year for large firms, allowing insiders fewer opportunities to trade on earnings information.

Panel A presents evidence on insider trading activity in our sample. We find that 73.1% of the firm-years are associated with some form of insider trading activity.[10] In terms of observed trading, 17.2% and 22.2% of the firm-years in the sample have only insider purchases or sales, respectively, while 33.7% of the firm-years are associated with *both* insider buying and selling activity. Finally, 26.9% of the sample consists of firm-years without any open market insider trading activity (i.e., no-trade observations).

Panel B presents descriptive statistics about the key variables used in this study. These statistics highlight considerable economic variation and diversity of the firm-years included in our sample. The average current earnings realization for our sample of firms is -0.018, yet only 31% of our sample is associated with negative earnings (median $ROA_t = 0.020$). The mean one-year-ahead earnings change is 0.007, and 59% of our firm-year observations are associated with an increase in next year's earnings (median $\Delta E_{t+1} = 0.003$). Consistent with the sample containing a broad cross-section of firms, the inter-quartile range of MVE is $47.86 million to $983.7 million, with a sample average of $2,878 million. Additionally, there exists considerable variation in compensation-related incentives to sell securities, with 64.4% of the firms granting stock options and 48.1% of the firms having insiders who exercised stock options in the year of insider-trading measurement. Finally, 48.7% and 52.0% of the firms reported a special item during the year or the year following, respectively. On average, these special items accounted for about 1.8% of total assets at the beginning of each respective year.

IV. EMPIRICAL RESULTS ON THE INSIDER'S TRADE VERSUS HOLD DECISION

A. *Characteristics of Firm-Years and Firms with and without Insider Trading Activity*

Table 2 presents descriptive statistics for firm-years with and without insider trading activity. For each variable, mean and median statistics are presented. We test differences in mean and median characteristics using a two-sample t-test of means and a non-parametric signed-rank Wilcoxon test, respectively. Consistent with prior research, insider trading is more prominent among larger firms, growth firms (i.e., low book-to-market firms) and firms with R&D activities. We also find that stock granting and option exercising activity is more prevalent among firms with insider-

[10] By comparison, Lakonishok and Lee (2001) find that approximately 55% of the firm-years in their sample period (1976-1994) were associated with some form of insider trading activity.

trading activity. However, given the strong correlation between these compensation activities and both firm size and book-to-market ratios, univariate relationships need to be interpreted with caution.[11]

In terms of performance, firm-years with insider trading have stronger contemporaneous return performance, are marginally more profitable, have less volatile earnings streams, and display a greater frequency of contemporaneous and future special items than firm-years without insider trading. In terms of future performance, firm-years with insider trading activity have weaker contemporaneous return performance and display no material difference in terms of future earnings performance than firm-years without insider trading.

Finally, firm-years with insider trading are associated with significantly smaller absolute earnings changes, suggesting that insiders limit their trading activities in advance of large earnings changes. Additional evidence on this inverse relation is also found in Figure 2, which presents a histogram of the percentage of firm-years with insider trading (both purchases and sales) conditional on the relative, ranked magnitude of next year's earnings innovation. Specifically, the histogram shows that insider trading is less prevalent around extreme earnings changes (i.e., as represented by the far left and far right bins along the horizontal axis) than around smaller earnings changes (i.e., bins located near the center of the distribution). The following section examines the impact of future earnings news on likelihood of insider trading in a multivariate setting.

B. *Multivariate Analysis of Firms and Firm-Years with and without Insider Trading*

Given the strong correlation between many of our explanatory variables, we examine the relation between the presence of insider trading and the magnitude of future earnings changes in a multivariate setting. Specifically, we estimate the following pooled, cross-sectional logistic model:

$$(1)\quad \text{Prob}(TRADE_{i,t}=1) = \text{logit}(\alpha + \beta_1|\Delta E_{i,t+1}| + \beta_2 SPECIAL_{i,t+1} + \beta_3 \log(BM_{i,t}) + \beta_4 \log(MVE_{i,t}) + \beta_5 ROA_{i,t} + \beta_6 SPECIAL_{i,t} + \beta_7|MARET_{i,t}| + \beta_8 STDEARN_i + \beta_9 GRANT_{i,t} + \beta_{10} EXERCISE_{i,t} + \beta_{11} RESEARCH_{i,t} + \varepsilon_{i,t})$$

where the dependent variable, $TRADE_{i,t}$, is an indicator variable equal to 1 if any insider of firm *i* bought or sold shares on the open market in fiscal year *t*, 0 otherwise. All other variables are as defined in Appendix 1. In order to examine the decision to trade (i.e., unsigned trading behavior), all

[11] The Pearson correlation between log(MVE) and the variables log(1+BM), GRANT and EXERCISE is -0.310, 0.596 and 0.536, respectively.

of our contemporaneous and future performance variables are measured in terms of absolute realizations. Table 3 presents marginal effects from our estimation of Equation (1). Two-tailed p-values for the significance of the marginal effects are calculated using standard errors robust to heteroscedasticity and clustered at the firm level (in parentheses).

This estimation reveals that the probability of insider trading decreases with firm size, the firm's book-to-market ratio, volatile earnings streams, and the presence of R&D activities, and increases with the presence of stock-based compensation grants and option exercises. After controlling for these firm-specific attributes, the probability of insider trading is decreasing in the magnitude of next year's annual earnings innovation. This negative relation is consistent with a manager wishing to avoid trading on material information that they may have a duty to subsequently disclose prior to the earnings announcement date. Interestingly, the presence of contemporaneous or future special items does not influence the probability of insider trading. The lack of a significant relation between insider trading and special items suggests that managers are neither tempted nor deterred from trading in advance of material, one-time earnings information and/or that these charges are not predictable one-year in advance (e.g., these charges are recorded in the period the economic events occur through timely recognition practices, offering minimal opportunities for managers to exploit their informational advantage).

V. THE IMPACT OF FUTURE EARNINGS NEWS ON THE INSIDER'S DECISION TO PURCHASE OR SELL FIRM SECURITIES

Our primary research objective is to document the role of future earnings information on the insider's decision to trade or not trade in a given direction. This section explores that issue.

A. *Characteristics of Firm-Years with and without Insider Purchasing and Selling Transactions*

Table 4 presents descriptive evidence on firm-years with and without insider trading, conditional on the dominant direction of trade. Panel A presents evidence conditional on the presence of majority insider purchases, or lack thereof. Panel B presents evidence conditional on the presence of majority insider selling, or lack thereof.

In terms of firm characteristics, firm-years with net insider purchasing activity are associated with smaller firms, firms with lower valuations and fewer growth options (i.e., high book-to-market ratios), and firms with insiders who are not contemporaneously exercising stock options. By contrast, firm-years with dominant selling activity are associated with larger firms, firms with higher valuations and larger growth options (i.e., low

book-to-market firms), and firms where insiders are contemporaneously exercising stock options. In terms of earnings attributes, firm-years with insider purchases have weaker ROA realizations in the year of trade, have larger (average) earnings innovations in year $t+1$ and are less likely to report a special item in year $t+1$ than firm-years without majority insider purchases. In contrast, firm-years with majority insider selling have stronger current earnings and weaker future (average) earnings innovations than firm-years without majority selling activity. Finally, unlike insider purchasing behavior, insider selling is actually stronger in the presence of both contemporaneous and future special items.

B. *The Impact of Future Earnings on Insider Purchasing, Selling and Option Exercising Behavior*

In order to isolate the primary drivers of insider buying and selling activity and to control for correlated omitted variables, we examine the relation between these trading decisions and next year's earnings changes in a multivariate setting. We estimate the following three logistic models using pooled cross-sectional data:

$$(2)\quad \text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha_P + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{EXERCISE}_{i,t} + \beta_8\text{RESEARCH}_{i,t} + \varepsilon_{P,i,t})$$

$$(3)\quad \text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha_S + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{EXERCISE}_{i,t} + \beta_8\text{RESEARCH}_{i,t} + \varepsilon_{S,i,t})$$

$$(4)\quad \text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha_E + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{RESEARCH}_{i,t} + \varepsilon_{E,i,t})$$

All variables are as defined in Appendix 1. While our empirical analyses have, to this point, focused on exclusively insider buying and insider selling activities, for completeness we also examine the determinants of option exercises. Over the time period of our study (1996-2004) option exercises have become an increasingly important component of executive pay and equity holdings, and we expect that private information about future earnings realizations should also impact the timing insiders exercise their stock options. Our estimations are presented in Table 5.

The first column of Table 5 presents coefficients from an estimation of our insider purchases model (Equation (2)), the second column presents an estimation of our insider sales model (Equation (3)), and the third column

presents an estimation of our option exercises model (Equation (4)). We perform these logistic estimations using all available firm-year observations and report marginal effects calculated at the means of the independent variables.[12] Two-tailed p-values for the significance of the marginal effects are calculated using standard errors robust to heteroscedasticity and clustered at the firm level (in parentheses).[13]

First, focusing on insider purchase decisions, we find that the likelihood of insiders purchasing shares is inversely related to the firm's past return performance, firm size, and the presence of R&D activities, and positively related to the firm's book-to-market ratio. The probability of insider buying is also lower if executives are concurrently exercising stock options, consistent with the insider's need to diversify their holdings. Interestingly, insiders are more likely to purchase shares in the presence of concurrent stock option granting activity. This positive relation between insider purchases and option granting is contrary to our intuition that insiders receiving stock and option grants, at a minimum, would not want to increase the idiosyncratic component of their wealth. Instead, this positive relation could reflect many firms' joint use of stock option grants and mandatory stock purchase plans (see Core and Larker 2002).[14] After controlling for these firm-specific attributes, we document the expected positive relation between the probability of an insider purchase and next year's annual earnings innovation.

Second, focusing on insider selling decisions, we find that the probability of insiders selling shares is positively associated with firm size, contemporaneous returns, and the presence of firms granting and insiders exercising stock options, and inversely related to the firm's book-to-market ratio. After controlling for these firm-specific attributes, we document the expected negative relation between the likelihood of insider selling and next year's earnings innovation.

Third, the final column presents our estimation of the determinants of option exercising activity. Similar to the results for insider selling, the likelihood of an insider exercising options is stronger among large firms, low book-to-market firms, among firms with R&D activities, and among firms that are contemporaneously granting additional stock options. After controlling for these firm attributes, we find a significant, negative, relation between option exercises and next year's earnings innovation. Together, these three estimations indicate that insiders systematically choose to adjust

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[12] For simplicity, we will refer to the marginal effects reported in the tables as "coefficients."

[13] The variability of earnings (STDEARN) is omitted from these models for parsimony. Our tests indicate that this variable is insignificant in a multivariate setting and its inclusion does not alter the sign or magnitude of the remaining variables.

[14] This positive relation could be reflective of the self-selection nature of observed compensation schemes, where boards select stock-based compensation in advance of strong price performance.

their holdings in their firm in a manner consistent with possessing private information about changes in the firm's future earnings performance.

C. *Non-Linearity in the Relation between Insider Trading Decisions and Future Earnings*

Our primary prediction is that the relation between insider trading decisions and next period's earnings innovation is non-linear. To test for this non-linearity, we add the square of next year's earnings change into Equations (2), (3), and (4), conditional on the underlying sign of the earnings change. Specifically, we estimate the following models:

(5) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 \text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 \text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 \text{MARET}_{i,t+1} + \beta_5 \log(\text{BM}_{i,t}) + \beta_6 \log(\text{MVE}_{i,t}) + \beta_7 \text{MARET}_{i,t} + \beta_8 \text{GRANT}_{i,t} + \beta_9 \text{EXERCISE}_{i,t} + \beta_{10} \text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(6) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 \text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 \text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 \text{MARET}_{i,t+1} + \beta_5 \log(\text{BM}_{i,t}) + \beta_6 \log(\text{MVE}_{i,t}) + \beta_7 \text{MARET}_{i,t} + \beta_8 \text{GRANT}_{i,t} + \beta_9 \text{EXERCISE}_{i,t} + \beta_{10} \text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(7) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 \text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 \text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 \text{MARET}_{i,t+1} + \beta_5 \log(\text{BM}_{i,t}) + \beta_6 \log(\text{MVE}_{i,t}) + \beta_7 \text{MARET}_{i,t} + \beta_8 \text{GRANT}_{i,t} + \beta_9 \text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

where $\text{POS}_{i,t+1}$ ($\text{NEG}_{i,t+1}$) is an indicator variable equal to 1 (-1) if $\Delta E_{i,t+1}$ is greater than (less than or equal to) 0, 0 otherwise. If insiders are concerned about the legal liability implications of trading in advance of a large earnings innovation (i.e., buying or selling in advance of a large earnings increase or decrease, respectively), then we expect the coefficient on the term $\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2$ to be significantly negative in the purchase estimation, while the coefficient on the term $\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2$ should be significantly positive in the sales estimation. In other words, the coefficients on these particular squared terms should capture the attenuation (and subsequent reversal) of the unconditional positive (negative) relation between the likelihood of insider purchasing (selling) and $\Delta E_{i,t+1}$. Table 6 presents the results of these estimations.

1. Non-linearity in the relation between purchase decisions and next year's earnings change

Consistent with the estimation of Equation (3), the insider's decision to purchase securities is positively associated with next period's earnings (i.e., marginal effect of $\Delta E_{i,t+1}$ is 0.061, p-value = 0.003). After introducing non-linearity into the estimated model, the coefficient of the first-order earnings term increases marginally in magnitude. After controlling for this first-order effect and other relevant determinants, the coefficient on term $POS_{i,t+1}*(\Delta E_{i,t+1})^2$ (positive earnings innovation) is significantly negative at the 10% level. This suggests that the incentive to purchase diminishes as the expected litigation-related costs of trading on this information increases. On the other end of the earnings spectrum, we find no incremental impact of an extreme negative innovation on the likelihood of purchasing securities.

Interpreting the coefficients shows that as earnings innovations get larger, the marginal effect is a diminishing positive slope on the purchase earnings relation. But more significantly, it also shows that there exists a point where marginally larger positive earnings innovations have a negative relation to the probability of insider purchasing. Based on our sample's characteristics, we estimate the inflection point around $\Delta E_{i,t+1} = 1.610$. Economically, such a realization is in the extreme 1% upper tail of the distribution of earnings innovations in our sample. Thus, while purchasing becomes less positively related to future earnings news as the news becomes extreme, only in the far positive tail of the earnings distribution do we see purchasing activity ceasing ahead of good news.

2. Non-linearity in the relation between selling decisions and next year's earnings change

In terms of insider selling behavior, our estimations find the first-order $\Delta E_{i,t+1}$ term to have a significant negative coefficient of -0.175 (p-value = 0.000). This is consistent with a general negative relation between the probability of insider selling and future earnings news. In addition, we find that insiders are incrementally less likely to sell securities in advance of large earnings increases (coefficient on $POS*(\Delta E_{i,t+1})^2 = 0.090$, p-value = 0.001), consistent with insiders deferring consumption in order to capture the expected gains from this information. In contrast, insiders are significantly less likely to sell securities in advance of large negative earnings innovations, as captured by the coefficient on the squared term $NEG*(\Delta E_{i,t+1})^2$. This negative coefficient is consistent with our prediction that the incentive to sell decreases as the expected litigation-related costs of trading on this negative earnings news increases, with the estimated point of

inflection for insider selling in advance of negative earnings news at $\Delta E_{i,t+1} = -0.483$.

Similar inferences can be drawn from the relation between option exercises and future earnings news. As expected, option exercises have a strong, negative relation with future earnings innovations. This negative relation is attenuated in the presence of extreme positive or negative earnings innovations (coefficient on $POS*(\Delta E_{i,t+1})^2 = 0.070$, p-value = 0.014; coefficient on $NEG*(\Delta E_{i,t+1})^2 = 0.547$, p-value = 0.000). These coefficients suggest that insiders have an incentive to curtail option exercises ahead of extreme negative news: the point at which option exercises cease ahead of negative news is -0.431.

Together, the evidence supports the notion that in advance of bad news, insiders appear to curtail trades to avoid the appearance of impropriety. Consistent with this behavior is that the non-linear relation between insider sales and option exercises and future earnings innovations "kicks in" more quickly than the non-linear relation between insider purchases and future earnings innovations.

D. *Non-Linear Relations between Insider Trading and Future Earnings Information Conditional on Firm Size*

To better understand the preceding results, we examine whether the observed non-linearity between insider trading decisions and future earnings varies across size partitions. We annually assign firms to a size trecile (i.e., large, medium and small firms) based on the rank of their market capitalization in that year. Table 7 presents the results from the estimation of Equations (5), (6), and (7) conditional on firm size.

These estimations reveal three findings. First, focusing on insider purchase decisions, the effects of legal liability are similar among large and small firms. Although the magnitude of the coefficient on $POS*\Delta E_{i,t+1}$ is substantially more negative for large firms than for small firms, the main effect of the future earnings innovation is also larger for large firms than for small firms; as such, the inflection point at which no trading occurs is roughly similar between the two groups of firms ($\Delta E_{i,t+1} = 1.1$ for large firms, versus $\Delta E_{i,t+1} = 1.00$ for small firms). Second, focusing on insider selling decisions, the effect of legal liability is similar across large and small firms, although the implied inflection point is marginally lower for large firms relative to small firms. Third, focusing on option exercise decisions, the effect of legal liability is greatest for small firms, with the implied inflection point lower for small firms than for medium-sized firms; in contrast, there is no significant non-linearity in the relation between future earnings innovations and option exercises among large firms.

E. *Role of Future Non-Recurring, or Special, Items on the Decision to Trade*

An alternative dimension of next year's earnings innovation is the presence of special or one-time charges. In our sample, the mean special item charge (scaled by beginning assets) in year $t+1$ is -0.019; *ceteris paribus*, these bad news items should create an incentive to sell shares in advance of these realizations. However, to the extent that these observable, one-time events attract greater regulatory or investor scrutiny, heightened legal liability concerns should inhibit insider selling. To test for the impact of a special item in the next fiscal year on current insider-trading behavior, we estimate the following models:

(8) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{EXERCISE}_{i,t} + \beta_{11}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(9) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{EXERCISE}_{i,t} + \beta_{11}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(10) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

All variables are defined in Appendix 1. Table 8 presents the results of these estimations. Consistent with the preceding arguments, $\text{SPECIAL}_{i,t+1}$ displays an inverse relation with both $\text{SALES}_{i,t}$ and $\text{EXERCISE}_{i,t}$, although the relation is substantially stronger for option exercises. These estimations also show that the observed relations between insider trading behavior and next year's earnings change are robust to the inclusion of special items in our models.

VI. ROBUSTNESS OF EMPIRICAL RESULTS

A. *Classification of Insider Trading Behavior*

In our current research design, the nature and direction of insider trading behavior is defined on the basis of the presence of net (i.e., majority) purchase or sale transactions. As currently defined, the indicator variable $\text{PURCH}_{i,t}$ ($\text{SALES}_{i,t}$) equals 0 if insiders either (1) did not engage in any

open-market transactions designed to increase or decrease their holdings or (2) engaged in purchasing behavior to a lesser or greater extent than selling behavior. A potential limitation to this approach is that it treats minority purchase and sales behavior as equivalent to not purchasing or selling at all. Because it is common to have liquidity selling at the same time as information-based purchasing within a given firm, we may be throwing out some information related to informed-purchasing behavior.

To control for this potential imprecision in measurement, we conduct robustness tests where insider trading is defined on the basis of whether any buying or selling occurs. Thus, firm-year observations where any selling occurs would be treated as a sales observation; similarly, firm-years with any purchasing activity would be treated as a purchase observation. Estimations (not presented) using these trading definitions yield results and inferences generally consistent with those reported and tabulated using the complete sample.[15]

B. *Insider Trading and Earnings Persistence*

Prior research shows that more persistent earnings innovations lead to greater changes in equity prices (Kormendi and Lipe 1987). Because extreme earnings innovations tend to be less persistent than smaller earnings innovations, the value implications of an extreme, yet transitory, earnings innovation will not be as large as a smaller, yet persistent, earnings change. To the extent that insiders are aware of the persistence of next year's earnings innovation when making their trading decision, the non-linear relation we document in this paper could be driven by differences in earnings persistence across future earnings realizations.

An insider's decision to trade on the basis of future earnings information will ultimately be determined by the expected return to trading on this private information. Earnings persistence is relevant to insiders because more persistent earnings changes will lead to a greater change in firm value than a transitory shock. As such, an insider contemplating purchasing or selling ahead of an increase or decrease in earnings should give greater weight to earnings changes that reflect persistent, long-term changes in firm performance than short-term, transitory earnings changes.

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[15] The major difference is that the estimations of the determinants of insider purchases fail to document a non-linear relation between positive earnings innovations and the presence of insider purchasing: while the coefficient on $POS_{i,t+1}*(\Delta E_{i,t+1})^2$ is negative, it is not significantly different from zero. For insider sale estimations, the non-linear relation documented in Table 6 is still found; however, the magnitude of the coefficients on the earnings measures is smaller than those reported in Table 6. This suggests that when insider selling is less than concurrent insider purchasing it is more likely to be liquidity based.

To test this idea, we re-estimate the logistic models in Table 6 after separating the sample into firm-years with persistent and non-persistent earnings innovations. Our definition of a persistent earnings innovation is as follows: if the sign of the one-year ahead earnings innovations ($\Delta E_{i,t+1}$) equals the sign of the two-year ahead earnings innovation ($\Delta E_{i,t+2}$) then the one-year ahead earnings innovation is "persistent." In other words, if an increase in earnings is followed by another increase in earnings (or a decrease in earnings is followed by another decrease in earnings) then next year's earnings are classified as "persistent." Otherwise, the one-year ahead earning innovation is deemed to be transitory and classified as "not persistent."

These tests require data on two-years-ahead earnings changes, resulting in the loss of all observations from fiscal year 2004 as well as those other firm-years lacking two-year-ahead data. Our sample for these tests consists of 34,527 firm-years, split between 24,821 "persistent" and 9,706 "not persistent" observations. Table 9 presents coefficients from our logistic estimations using these two samples.

The upper half of Table 9 presents select coefficients from estimations of our insider purchase, insider sale, and option exercise models when next year's earnings innovations are classified as persistent. As expected, the relations between one-year ahead earnings innovations and the insider trading decisions are stronger for this sub-sample than for the overall sample. In other words, insiders place a greater weight on next year's earnings innovation when this information is likely to have a larger impact on equity prices. However, even when this earnings change is persistent, there continues to exist a non-linearity in the purchasing-earnings relation, where extreme positive earnings innovations are weighted negatively. Similarly, insider sales and option exercises display a negative relation with next year's earnings, yet this negative relation weakens among extreme innovations.

In contrast, the lower half of Table 9 documents these relations when next year's earnings innovations are classified as "not persistent." In this setting, there are neither linear nor non-linear relations between insider trading decisions and next year's earnings innovations. Together, these panels suggest that not only are insiders able to forecast future changes in firm performance, but they accurately assess the persistence of these earnings changes and trade only on those earnings innovations that will have the largest impact on firm value. Finally, after controlling for the differential persistence of each earnings innovation, insiders continue to avoid trading on the most extreme innovations, consistent with the presence of expected legal liability, political and reputation costs shaping their trading decisions.

C. *Additional Robustness Analyses*

We verify the robustness of our results using a variety of additional specifications. First, we replicate our results using an earnings change variable that is closer to change in return-on-assets variable. The new variable is equal to the difference between next year's earnings, scaled by next year's ending assets, and the current year's earnings, scaled by the current year's ending assets. All of our results are robust to using this new earnings change variable. Second, we use conditional logit to estimate our main regressions while including firm fixed effects. Results with this estimation are generally similar to those reported although the significance of future earnings changes weakens for regressions where EXERCISE is the dependent variable. Third, we use Ordinary Least Squares (OLS) regressions to estimate our models, i.e., we estimate a linear probability model rather than a logit model. The relations between insider trading and future earnings news and the non-linearity in these relations are all found when estimating the linear probability model. Fourth, we replace our indicator variables for the presence of insider trading with the log of shares traded, scaled by shares outstanding. We then use OLS to estimate the relation between these measures and future earnings changes. Again, the relations between insider trading and future earnings news and the non-linearity in these relations are all found when using trading volume as the dependent variable. Fifth, we re-run the OLS models (with either the indicator variable measures of insider trading or the shares traded measures of insider trading, as the dependent variables) including firm fixed effects. Results again are similar to those reported.

Finally, our measure of next year's earnings innovation could be capturing a shift in corporate activities, not earnings changes *per se*. Specifically, firms may engage in investment or divestiture-related activities that substantially change the composition of their operating assets between the end of year t and the end of year $t+1$, resulting in a change to both the level and likely persistence of the firm's earnings stream. For robustness, we have undertaken all of our empirical work after restricting the sample to firms whose assets change from year t to year $t+1$ by no more than 30% in either direction; this restriction reduces our sample size by 10,287 observations (21.4%). Results with this sample are similar to those reported, with the economic magnitudes of the non-linearities we document in the earnings-trading relation stronger for this sample than for the overall sample (results untabulated).

VII. CONCLUSION

Existing research on insider trading currently presents a fragmented set of (potentially) conflicting results. By documenting that there exist regions

of trading and no-trading with respect to future earnings innovations, this paper provides a framework for understanding the diverse set of results in the literature.

In this paper, we provide evidence that the relations between insider trading decisions and next year's earnings are not strictly linear. In terms of insider purchases, we find that insider buying is positively related to next year's earnings innovation. In the case of extreme good news, we find that the relation between buying and earnings is attenuated the larger the positive innovation, consistent with increasing costs to trading. We conclude that insiders do purchase on future earnings news; however, there exists a region beyond which insiders will not buy regardless of the potential stock appreciation gains.

In terms of insider selling, our results support the idea that majority insider sales are associated with future earnings news. However, in advance of bad news, insiders appear to curtail liquidity trading to avoid the appearance of impropriety. Insider option exercises also exhibit relations with future earnings news similar to those observed for insider selling.

We conclude that the observed variation in these purchase, sale, and option exercise decisions are consistent with the expected existence of heightened legal liability, political and/or reputation-related costs around extreme earnings changes. Our coefficient estimations suggest that the aversion to trading as a result of legal liability concerns appears to be stronger for insider selling than buying. In addition, we find that not only are insiders able to forecast earnings innovations, they are able to assess the persistence of these innovations, trading only on the innovations that are persistent, and will thus lead to the greatest changes in firm value. The persistence of earnings however, does not drive the non-linear relation between trading decisions and earnings innovations; after controlling for differential levels of earnings persistence, trading decisions exhibit concave relations with future earnings news.

REFERENCES

Aboody, D., and B. Lev. 2000. Information asymmetry, R&D, and insider gains. *Journal of Finance* 55 (6): 2747-66.

Ball, R., and P. Brown. 1968. An empirical evaluation of accounting income numbers. *Journal of Accounting Research* 6 (2): 159-78.

Beaver, W., R. Lambert, and D. Morse. 1980. The information content of security prices. *Journal of Accounting and Economics* 2 (1): 3-28.

Beneish, M. D., and M. Vargus. 2002. Insider trading, earnings quality, and accrual mispricing. *The Accounting Review* 77 (4): 755-91.

Bettis, J., J. Coles, and M. Lemmon. 2000. Corporate policies restricting trading by insiders. *Journal of Financial Economics* 57 (2): 191-220.

Billings, M. 2007. Tempting trading opportunities and litigation consequences. Working paper, Indiana University. Bloomington, Indiana.

Collins, D., and S. P. Kothari. 1989. An analysis of intertemporal and cross-sectional determinants of earnings response coefficients. *Journal of Accounting and Economics* 11 (2-3): 143-81.

Collins, D., S. P. Kothari, and J. Rayburn. 1987. Firm size and the information content of prices with respect to earnings. *Journal of Accounting and Economics* 9 (2): 111-38.

Collins, D., S. P. Kothari, J. Shanken, and R. Sloan. 1994. Lack of timeliness and noise as explanations for the low contemporaneous return-earnings association. *Journal of Accounting and Economics* 18 (3): 289-324.

Core, J., and D. Larcker. 2002. Performance consequences of mandatory increases in executive stock ownership. *Journal of Financial Economics* 64 (3): 317-40.

Elliott, J., D. Morse, and G. Richardson. 1984. The association between insider trading and information announcements. *Rand Journal of Economics* 15 (4): 521-36.

Frankel, R., and X. Li. 2002. The characteristics of a firm's information environment and the predictive ability of insider trades. *Journal of Accounting and Economics* 37 (2): 229-59.

Givoly, D., and D. Palmon. 1985. Insider trading and the exploitation of inside information: some empirical evidence. *Journal of Business* 58 (1): 69-87.

Hong, H., and M. Huang. 2005. Talking up liquidity: insider trading and investor relations. *Journal of Financial Intermediation* 14 (1): 1-31.

Huddart, S., B. Ke, and K. Petroni. 2003. What insiders know about future earnings and how they use it: evidence from insider trades. *Journal of Accounting and Economics* 35 (3): 315-46.

Jaffe, J. 1974. The effect of regulation changes on insider trading. *Bell Journal of Economics and Management Science* 5 (1): 93-121.

John, K., and L. Lang. 1991. Strategic insider trading around dividend announcements: theory and evidence. *Journal of Finance* 46 (4): 1361-89.

Karpoff, J., and D. Lee. 1991. Insider trading before new issue announcements. *Financial Management* 20 (1): 18-26.

Kormendi, R., and R. Lipe. 1987. Earnings innovations, earnings persistence, and stock returns. *Journal of Business* 60 (3): 323-45.

Lakonishok, J., and I. Lee. 2001. Are insider trades informative? *The Review of Financial Studies* 14 (1): 79-111.

Lang, M., and R. Lundholm. 1993. Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research* 31 (3): 246-71.

Lee, D. S., W. Mikkelson, and M. Partch. 1992. Managers' trading around stock repurchases. *The Journal of Finance* 47 (5): 1947-61.

Loughran, T., and J. Ritter. 1995. The new issues puzzle. *The Journal of Finance* 50 (1): 23-51.

Manne, H. G. 1966. In defense of insider trading. *Harvard Business Review* 44 (6): 113-22.

Meulbroek, L. 1992. An empirical analysis of illegal insider trading. *The Journal of Finance* 47 (5): 1661-99.

Noe, C. 1999. Voluntary disclosures and insider transactions. *Journal of Accounting and Economics* 27 (3): 305-26.

Ofek, E., and D. Yermack. 2000. Taking stock: equity-based compensation and the evolution of managerial ownership. *The Journal of Finance* 55 (3): 1367-84.

Piotroski, J., and D. Roulstone. 2005. Do insider trades reflect both contrarian beliefs and superior knowledge about future cash flow realizations? *Journal of Accounting and Economics* 39 (1): 55-82.

Roulstone, D. 2003. The relation between insider-trading restrictions and executive compensation. *Journal of Accounting Research* 41 (3): 525-52.

Rozeff, M., and M. Zaman. 1988. Market efficiency and insider trading: new evidence. *The Journal of Business* 61 (1): 25-44.

—— 1998. Overreaction and insider trading: evidence from growth and value portfolios. *The Journal of Finance* 53 (2): 701-16.

Seyhun, H. N. 1986. Insider's profits, cost of trading, and market efficiency. *Journal of Financial Economics* 16 (2): 189-212.

—— 1990. Do bidder managers knowingly pay too much for target firms? *Journal of Business* 63 (4): 439-64.

—— 1992. Why does aggregate insider trading predict future stock returns? *Quarterly Journal of Economics* 107 (4): 1303-31.

Seyhun, H. N., and M. Bradley. 1997. Corporate bankruptcy and insider trading. *Journal of Business* 70 (2): 189-216.

Smith, C., and R. Watts. 1992. The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics* 32 (3): 263-92.

Watts, R., and R. Leftwich. 1977. The time series of annual accounting earnings. *Journal of Accounting Research* 15 (2): 253-71.

Watts, R., and J. Zimmerman. 1986. *Positive Accounting Theory*. Englewood Cliffs, New Jersey: Prentice-Hall.

APPENDIX 1

Variable Definitions		
Variable		*Definition*[a]
$PURCHASE_{i,t}$	=	An indicator variable equal to 1 if any insider of firm *i* bought shares during fiscal year *t* and total insider purchases exceed total insider sales, 0 otherwise. Insider trade data is gathered through Thomson Financial First Call Insiders Data.
$SALES_{i,t}$	=	An indicator variable equal to 1 if any insider of firm *i* sold shares during fiscal year *t* and total insider sales exceed total insider purchases, 0 otherwise.
$TRADE_{i,t}$	=	An indicator variable equal to 1 if any insider of firm *i* bought or sold shares during fiscal year *t*, 0 otherwise.
$EXERCISE_{i,t}$	=	An indicator variable equal to 1 if any insider of firm *i* exercised options during year *t*.
MVE_t	=	Market value of equity measured at the end of fiscal year *t*.
BM_t	=	Book-to-market ratio, measured as the firm's book value of shareholders' equity (Compustat item #60) at the end of year *t*, scaled by MVE.
ΔE_{t+1}	=	Future first-difference in net income before extraordinary items, i.e., net income before extraordinary items for year *t*+1 (Compustat item #18) less net income before extraordinary items for year *t*, scaled by average total assets (Compustat item #6).
$MARET_{t+1}$	=	Future twelve-month market-adjusted return, measured as the firm's twelve-month cumulative return during fiscal year *t*+1 less the corresponding twelve-month return on the value-weighted market index.
$MARET_t$	=	Contemporaneous twelve-month market-adjusted return, measured as the firm's twelve-month cumulative return during fiscal year *t* less the corresponding twelve-month return on the value-weighted market index.
ROA_t	=	Net income before extraordinary items for fiscal year *t*, scaled by the average of beginning and ending total assets of year *t*.
$STDEARN_i$	=	Standard deviation of firm *i*'s annual change in earnings, $\Delta E_{i,t}$, between fiscal years 1996 and 2004.
$SPECITEM_t$	=	Value of special items reported by the firm in fiscal year *t*, scaled by total assets at the beginning of the year.
$SPECIAL_t$	=	An indicator variable equal to 1 if $SPECITEM_t$ is not equal to 0, 0 otherwise.
$GRANT_t$	=	An indicator variable equal to 1 if the firm granted shares of restricted stock or stock options to the firm's executives and directors during fiscal year *t*, 0 otherwise.
$RESEARCH_t$	=	An indicator variable equal to 1 if the firm reported a non-zero research and development expense during fiscal year *t*, 0 otherwise.

[a] All return and price data are gathered through CRSP. All financial statement-based information is gathered through Compustat. All data on insider trades, option grants and option exercise activity is gathered through Thomson Financial.

Descriptive Statistics					
PANEL A Insider trading behavior (fiscal years 1996-2004; n=48,072)					
Classification	*No Trading*	*Only Purchases*	*Purchases ≥ Sales*	*Purchases < Sales*	*Only Sales*
# of observations	12,922	8,280	4,479	11,712	10,679
% of sample	26.88%	17.22%	9.32%	24.36%	22.21%

Table 1 (Panel A)

Descriptive Statistics							
PANEL B Firm-level characteristics							
Variable	*Mean*	*Std. Dev.*	*5th Pctl.*	*25th Pctl.*	*Median*	*75th Pctl.*	*95th Pctl.*
$PURCHASE_{i,t}$	0.265	0.442	0.000	0.000	0.000	1.000	1.000
$SALES_{i,t}$	0.466	0.499	0.000	0.000	0.000	1.000	1.000
$TRADE_{i,t}$	0.731	0.443	0.000	0.000	1.000	1.000	1.000
$EXERCISE_{i,t}$	0.481	0.500	0.000	0.000	0.000	1.000	1.000
$MVE_{i,t}$	2,877.68	12,488.68	8.685	47.855	207.423	983.67	10,677.12
$\log(MVE_{i,t})$	5.464	2.159	2.094	3.906	5.349	6.914	9.222
$BM_{i,t}$	0.712	0.887	0.109	0.318	0.545	0.857	1.792
$\log(1+ BM_{i,t})$	0.476	0.302	0.100	0.267	0.426	0.615	1.029
$ROA_{i,t}$	-0.018	0.274	-0.408	-0.012	0.020	0.061	0.154
$\Delta E_{i,t+1}$	0.007	0.168	-0.200	-0.018	0.003	0.030	0.206
$MARET_{i,t}$	0.101	0.929	-0.734	-0.320	-0.029	0.280	1.248
$MARET_{i,t+1}$	0.079	0.879	-0.734	-0.317	-0.033	0.264	1.147
$\|SPECITEM_{i,t}\|$	0.029	0.226	0.000	0.000	0.000	0.014	0.127
$\|SPECITEM_{i,t+1}\|$	0.029	0.224	0.000	0.000	0.0003	0.015	0.133
$SPECIAL_{i,t}$	0.487	0.500	0.000	0.000	0.000	1.000	1.000
$SPECIAL_{i,t+1}$	0.520	0.500	0.000	0.000	1.000	1.000	1.000
$GRANT_{i,t}$	0.644	0.479	0.000	0.000	1.000	1.000	1.000
$RESEARCH_{i,t}$	0.417	0.493	0.000	0.000	0.000	1.000	1.000

Table 1 (Panel B)

This table presents descriptive statistics for firm-years with and without insider trading activity. A firm-year is classified as having insider trading if any insider (i.e., executive or director) in firm i *bought or sold shares on the open market in fiscal year* t.

Comparison of Firm-Years with and without Insider Trading Activity						
	Insider Trading ($TRADE_{i,t}$=1)		*No Insider Trading* ($TRADE_{i,t}$=0)		*Difference* (Trading - No Trading)	
Variable	*Mean*	*Median*	*Mean*	*Median*	*Mean*	*Median*
$MVE_{i,t}$	2,666.64	239.72	3,451.77	123.65	785.13[a]	116.07[a]
$BM_{i,t}$	0.653	0.504	0.833	0.619	-0.179[a]	-0.115[a]
$ROA_{i,t}$	-0.019	0.023	-0.025	0.014	-0.006	0.009[a]
$MARET_{i,t}$	0.119	-0.027	0.094	-0.059	0.025[c]	0.032[a]
$\|MARET_{i,t}\|$	0.505	0.332	0.512	0.338	0.006	-0.006
$\Delta E_{i,t+1}$	0.008	0.003	0.008	0.002	0.000	0.001[a]
$\|\Delta E_{i,t+1}\|$	0.080	0.027	0.098	0.035	-0.018[a]	-0.008[a]
$MARET_{i,t+1}$	0.093	-0.039	0.129	-0.038	-0.036[a]	-0.001
$\|MARET_{i,t+1}\|$	0.484	0.324	0.528	0.343	-0.043[a]	-0.019[a]
$SPECIAL_{i,t}$	0.490	0.000	0.478	0.000	0.012[b]	0.000[c]
$\|SPECITEM_{i,t}\|$	0.029	0.000	0.030	0.000	-0.002	0.000[c]
$SPECIAL_{i,t+1}$	0.525	1.000	0.507	1.000	0.018[a]	0.000
$\|SPECITEM_{i,t+1}\|$	0.028	0.0003	0.031	0.000	-0.003	0.0033[a]
$STDEARN_i$	0.263	0.057	1.104	0.079	-0.841[a]	-0.022[a]
$GRANT_{i,t}$	0.782	1.000	0.266	0.000	0.517[a]	1.000[a]
$EXERCISE_{i,t}$	0.623	1.000	0.097	0.000	0.526[a]	1.000[a]
$RESEARCH_{i,t}$	0.419	0.000	0.412	0.000	0.007	0.000
# of observations	35,150		12,922			

[a,b,c] Difference in mean (median) characteristic between trade and no-trade firm-years is significant at the 1%, 5%, and 10% level, respectively, using a two-sample, two-tailed *t*-test of means (signed ranked wilcoxon test).

Table 2

This table presents coefficients from a pooled cross-sectional estimation of the following model:

(1) $$Prob(TRADE_{i,t}=1) = logit(\alpha + \beta_1|\Delta E_{i,t+1}| + \beta_2 SPECIAL_{i,t+1} + \beta_3 log(BM_{i,t}) + \beta_4 log(MVE_{i,t}) + \beta_5 ROA_{i,t} + \beta_6 SPECIAL_{i,t} + \beta_7|MARET_{i,t}| + \beta_8 STDEARN_i + \beta_9 GRANT_{i,t} + \beta_{10} EXERCISE_{i,t} + \beta_{11} RESEARCH_{i,t} + \varepsilon_{i,t})$$

where $TRADE_{i,t}$ is an indicator variable equal to 1 if any insider of firm i bought or sold shares during fiscal year t, 0 otherwise. All independent variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across same-firm observations. Two-tailed p-values are presented in parentheses. n=48,072.

Characteristics of Firm-Years with and without Insider Trading: Multivariate Evidence	
Variable	$Prob(TRADE_{i,t}=1)$
Intercept	-0.305 *(0.012)*
$log(BM_t)$	-0.009 *(0.003)*
$log(MVE_t)$	-0.012 *(0.000)*
ROA_t	-0.006 *(0.437)*
$\|MARET_t\|$	-0.001 *(0.447)*
$SPECIAL_t$	-0.002 *(0.573)*
$\|\Delta E_{i,t+1}\|$	-0.099 *(0.000)*
$SPECIAL_{t+1}$	-0.006 *(0.161)*
$STDEARN_i$	-0.001 *(0.097)*
$GRANT_t$	0.307 *(0.000)*
$EXERCISE_t$	0.331 *(0.000)*
$RESEARCH_t$	-0.047 *(0.000)*
Year Fixed Effects	Yes
Percent Correct	82.71%
Pseudo-R-Squared	31.29%
Wald χ^2	5,097.04

Table 3

This table presents descriptive statistics for firm-years with and without insider trading activity. Panel A present statistics conditional on the presence of net insider purchasing activity; Panel B presents statistics conditional on the presence of net insider selling activity. A firm-year is classified as having majority purchasing activity if any insider (i.e., executive or director) in firm i *bought shares on the open market in fiscal year* t *and total shares purchased by insiders is greater than or equal to total shares sold by insiders. A firm-year is classified as having majority selling activity if any insider (i.e., executive or director) in firm* i *sold shares on the open market in fiscal year* t *and total shares sold by insiders is greater than total shares purchased by insiders.*

Descriptive Statistics of Firm-Years with and without Majority Insider Purchase and Sale Transactions

PANEL A
Firm-year characteristics conditional on the presence of majority insider purchases

	Majority Purchase Transactions ($PURCHASE_{i,t}=1$)		*Minority or No Purchase Transactions* ($PURCHASE_{i,t}=0$)		*Difference* (Purchase - No Purchase)	
Variable	*Mean*	*Median*	*Mean*	*Median*	*Mean*	*Median*
$MVE_{i,t}$	709.99	82.26	3,661.01	306.32	2,951.02[a]	-224.06[a]
$BM_{i,t}$	0.875	0.668	0.639	0.485	0.236[b]	0.183[a]
$ROA_{i,t}$	-0.059	0.011	-0.007	0.028	-0.053[a]	-0.017[a]
$MARET_{i,t}$	0.007	-0.131	0.150	-0.005	-0.144[a]	-0.126[a]
$\|SPECITEM_{i,t}\|$	0.029	0.000	0.029	0.000	0.000	0.000[a]
$SPECIAL_{i,t}$	0.474	0.000	0.491	0.000	0.017[a]	0.000[a]
$\Delta E_{i,t+1}$	0.016	0.002	0.005	0.003	0.011[a]	-0.001[a]
$\|SPECITEM_{i,t+1}\|$	0.026	0.000	0.029	0.0005	-0.003[c]	0.0005[a]
$SPECIAL_{i,t+1}$	0.485	0.000	0.533	1.000	-0.048[a]	-1.000[a]
$GRANT_{i,t}$	0.722	1.000	0.615	1.000	0.107[a]	0.000
$EXERCISE_{i,t}$	0.356	0.000	0.527	1.000	-0.171[a]	-1.000[a]
$RESEARCH_{i,t}$	0.364	0.000	0.436	0.000	-0.072[a]	0.000[a]
# of observations	12,759		35,313			

[a,b,c] Difference in mean (median) characteristic between trade and no-trade firm-years is significant at the 1%, 5%, and 10% level, respectively, using a two-sample, two-tailed *t*-test of means (signed ranked wilcoxon test).

Table 4 (Panel A)

This table presents descriptive statistics for firm-years with and without insider trading activity. Panel A present statistics conditional on the presence of net insider purchasing activity; Panel B presents statistics conditional on the presence of net insider selling activity. A firm-year is classified as having majority purchasing activity if any insider (i.e., executive or director) in firm i *bought shares on the open market in fiscal year* t *and total shares purchased by insiders is greater than or equal to total shares sold by insiders. A firm-year is classified as having majority selling activity if any insider (i.e., executive or director) in firm* i *sold shares on the open market in fiscal year* t *and total shares sold by insiders is greater than total shares purchased by insiders.*

Descriptive Statistics of Firm-Years with and without Majority Insider Purchase and Sale Transactions

PANEL B
Firm-year characteristics conditional on the presence of majority insider selling

	Majority Sales Transactions ($SALES_{i,t}$=1)		*Minority or No Sales Transactions* ($SALES_{i,t}$=0)		*Difference* (Sales - No Sales)	
Variable	*Mean*	*Median*	*Mean*	*Median*	*Mean*	*Median*
$MVE_{i,t}$	3,781.77	436.23	2,089.47	96.84	1,692.29[a]	339.39[a]
$BM_{i,t}$	0.527	0.435	0.854	0.645	-0.327[a]	-0.210[a]
$ROA_{i,t}$	0.004	0.036	-0.042	0.012	0.046[a]	0.024[a]
$MARET_{i,t}$	0.183	0.025	0.050	-0.092	0.133[a]	0.117[a]
$\|SPECITEM_{i,t}\|$	0.028	0.000	0.029	0.000	0.001	0.000[a]
$SPECIAL_{i,t}$	0.499	0.000	0.476	0.000	0.023[a]	0.000[a]
$\Delta E_{i,t+1}$	0.004	0.003	0.012	0.002	-0.008[a]	0.001[a]
$\|SPECITEM_{i,t+1}\|$	0.029	0.001	0.029	0.000	0.000	0.001[a]
$SPECIAL_{i,t+1}$	0.548	1.000	0.496	0.000	0.052[a]	1.000[a]
$GRANT_{i,t}$	0.817	1.000	0.492	0.000	0.324[a]	1.000[a]
$EXERCISE_{i,t}$	0.774	1.000	0.225	0.000	0.549[a]	1.000[a]
$RESEARCH_{i,t}$	0.450	0.000	0.388	0.000	0.062[a]	0.000[a]
# of observations	22,391		25,681			

[a,b,c] Difference in mean (median) characteristic between trade and no-trade firm-years is significant at the 1%, 5%, and 10% level, respectively, using a two-sample, two-tailed *t*-test of means (signed ranked wilcoxon test).

Table 4 (Panel B)

This table presents coefficients from pooled cross-sectional estimations of the following models:

(2) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha_P + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{EXERCISE}_{i,t} + \beta_8\text{RESEARCH}_{i,t} + \varepsilon_{P,i,t})$$

(3) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha_S + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{EXERCISE}_{i,t} + \beta_8\text{RESEARCH}_{i,t} + \varepsilon_{S,i,t})$$

(4) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha_E + \beta_1\Delta E_{i,t+1} + \beta_2\text{MARET}_{i,t+1} + \beta_3\log(\text{BM}_{i,t}) + \beta_4\log(\text{MVE}_{i,t}) + \beta_5\text{MARET}_{i,t} + \beta_6\text{GRANT}_{i,t} + \beta_7\text{RESEARCH}_{i,t} + \varepsilon_{E,i,t})$$

All variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across within-firm observations. Two-tailed p-values are presented in parentheses. n=48,072.

The Impact of Future Earnings on Insider Decisions to Engage in Open Market Purchase and Sell Transactions

Variable	$\text{Prob}(\text{PURCHASE}_{i,t}=1)$	$\text{Prob}(\text{SALES}_{i,t}=1)$	$\text{Prob}(\text{EXERCISE}_{i,t}=1)$
Intercept	-0.421 *(0.000)*	-2.384 *(0.000)*	-2.714 *(0.000)*
ΔE_{t+1}	0.042 *(0.000)*	-0.042 *(0.008)*	-0.074 *(0.000)*
MARET_{t+1}	0.007 *(0.001)*	-0.025 *(0.000)*	-0.006 *(0.019)*
$\log(\text{BM}_t)$	0.028 *(0.000)*	-0.053 *(0.000)*	-0.060 *(0.000)*
$\log(\text{MVE}_t)$	-0.042 *(0.000)*	0.035 *(0.000)*	0.070 *(0.000)*
MARET_t	-0.010 *(0.000)*	0.011 *(0.020)*	0.001 *(0.796)*
GRANT_t	0.172 *(0.000)*	0.199 *(0.000)*	0.435 *(0.000)*
EXERCISE_t	-0.116 *(0.000)*	0.464 *(0.000)*	—
RESEARCH_t	-0.053 *(0.000)*	-0.009 *(0.281)*	0.033 *(0.000)*
Year Fixed Effects	Yes	Yes	Yes
Percent Correct	74.72%	77.64%	73.50%
Pseudo-R-Squared	10.57%	27.24%	20.66%
Wald χ^2	3,318.24	7,706.78	4,355.99

Table 5

This table presents coefficients from pooled cross-sectional estimations of the following models:

(5) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(6) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(7) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 RESEARCH_{i,t} + \varepsilon_{i,t})$$

All variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across within-firm observations. Two-tailed p-values are presented in parentheses. n=48,072.

Non-linear Estimation of Relation between Future Earnings and Insider Trading Decisions			
Variable	Prob($\text{PURCHASE}_{i,t}=1$)	Prob($\text{SALES}_{i,t}=1$)	Prob($\text{EXERCISE}_{i,t}=1$)
Intercept	-0.415 *(0.000)*	-2.360 *(0.000)*	-2.673 *(0.000)*
ΔE_{t+1}	0.061 *(0.003)*	-0.175 *(0.000)*	-0.236 *(0.000)*
$POS*(\Delta E_{t+1})^2$	-0.038 *(0.058)*	0.090 *(0.001)*	0.070 *(0.014)*
$NEG*(\Delta E_{t+1})^2$	0.023 *(0.779)*	0.362 *(0.000)*	0.547 *(0.000)*
$MARET_{t+1}$	0.006 *(0.001)*	-0.022 *(0.000)*	-0.004 *(0.150)*
$\log(BM_t)$	0.028 *(0.000)*	-0.057 *(0.000)*	-0.067 *(0.000)*
$\log(MVE_t)$	-0.042 *(0.000)*	0.034 *(0.000)*	0.067 *(0.000)*
$MARET_t$	-0.010 *(0.000)*	0.012 *(0.009)*	0.002 *(0.400)*
$GRANT_t$	0.172 *(0.000)*	0.200 *(0.000)*	0.436 *(0.000)*
$EXERCISE_t$	-0.117 *(0.000)*	0.463 *(0.000)*	—
$RESEARCH_t$	-0.052 *(0.000)*	-0.007 *(0.418)*	0.037 *(0.000)*
Year Fixed Effects	Yes	Yes	Yes
Percent Correct	74.74%	77.62%	73.68%
Pseudo-R-Squared	10.58%	27.30%	20.82%
Wald χ^2	3,324.48	7,706.46	4,456.00

Table 6

This table presents coefficients from pooled cross-sectional estimations of the following models, partitioned on the basis of the firm's market capitalization ($MVE_{i,t}$):

(5) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(6) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(7) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 RESEARCH_{i,t} + \varepsilon_{i,t})$$

All variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across within-firm observations. Two-tailed p-values are presented in parentheses. n=48,072.

Non-linear Estimation of Relation between Future Earnings and Insider Trading Decisions Conditional on Firm's Market Capitalization				
	Prob($\text{PURCHASE}_{i,t}$=1)			
Variable	ΔE_{t+1}	$POS*(\Delta E_{t+1})^2$	$NEG*(\Delta E_{t+1})^2$	n
Predicted	+	-	+	
Small Firms	0.065 *(0.062)*	-0.066 *(0.051)*	0.135 *(0.083)*	17765
Medium Firms	0.070 *(0.073)*	0.006 *(0.869)*	-0.036 *(0.594)*	17774
Large Firms	0.094 *(0.018)*	-0.087 *(0.030)*	-0.175 *(0.024)*	17774
	Prob($\text{SALES}_{i,t}$=1)			
Variable	ΔE_{t+1}	$POS*(\Delta E_{t+1})^2$	$NEG*(\Delta E_{t+1})^2$	n
Predicted	-	-	+	
Small Firms	-0.088 *(0.006)*	0.082 *(0.006)*	0.145 *(0.043)*	17765
Medium Firms	-0.173 *(0.002)*	0.036 *(0.435)*	0.411 *(0.001)*	17774
Large Firms	-0.145 *(0.078)*	0.138 *(0.030)*	0.262 *(0.094)*	17774
	Prob($\text{EXERCISE}_{i,t}$=1)			
Variable	ΔE_{t+1}	$POS*(\Delta E_{t+1})^2$	$NEG*(\Delta E_{t+1})^2$	n
Predicted	-	-	+	
Small Firms	-0.107 *(0.001)*	0.050 *(0.108)*	0.327 *(0.000)*	17765
Medium Firms	-0.230 *(0.000)*	0.044 *(0.359)*	0.521 *(0.000)*	17774
Large Firms	-0.199 *(0.010)*	0.087 *(0.178)*	0.204 *(0.293)*	17774

Table 7

This table presents coefficients from pooled estimations of the following models:

(8) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{EXERCISE}_{i,t} + \beta_{11}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(9) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{EXERCISE}_{i,t} + \beta_{11}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

(10) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2\text{SPECIAL}_{i,t+1} + \beta_3\text{POS}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4\text{NEG}_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_5\text{MARET}_{i,t+1} + \beta_6\log(\text{BM}_{i,t}) + \beta_7\log(\text{MVE}_{i,t}) + \beta_8\text{MARET}_{i,t} + \beta_9\text{GRANT}_{i,t} + \beta_{10}\text{RESEARCH}_{i,t} + \varepsilon_{i,t})$$

All variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across within-firm observations. Two-tailed p-values are presented in parentheses. n=48,072.

Impact of Future Special Items on Insider Trading Decisions			
Variable	$\text{Prob}(\text{PURCHASE}_{i,t}=1)$	$\text{Prob}(\text{SALES}_{i,t}=1)$	$\text{Prob}(\text{EXERCISE}_{i,t}=1)$
Intercept	-0.409 *(0.000)*	-2.351 *(0.000)*	-2.636 *(0.000)*
ΔE_{t+1}	0.060 *(0.005)*	-0.177 *(0.000)*	-0.250 *(0.000)*
$\text{SPECIAL}_{i,t+1}$	-0.004 *(0.395)*	-0.010 *(0.117)*	-0.044 *(0.000)*
$\text{POS}*(\Delta E_{t+1})^2$	-0.036 *(0.068)*	0.094 *(0.001)*	0.085 *(0.003)*
$\text{NEG}*(\Delta E_{t+1})^2$	0.022 *(0.630)*	0.359 *(0.001)*	0.535 *(0.000)*
MARET_{t+1}	0.006 *(0.001)*	-0.023 *(0.000)*	-0.005 *(0.077)*
$\log(\text{BM}_t)$	0.029 *(0.000)*	-0.057 *(0.000)*	-0.064 *(0.000)*
$\log(\text{MVE}_t)$	-0.042 *(0.000)*	0.034 *(0.000)*	0.070 *(0.000)*
MARET_t	-0.010 *(0.000)*	0.012 *(0.010)*	0.001 *(0.558)*
GRANT_t	0.172 *(0.000)*	0.200 *(0.000)*	0.438 *(0.000)*
EXERCISE_t	-0.117 *(0.000)*	0.463 *(0.000)*	—
RESEARCH_t	-0.052 *(0.000)*	-0.005 *(0.543)*	0.044 *(0.000)*
Year Fixed Effects	Yes	Yes	Yes
Percent Correct	74.72%	77.63%	73.65%
Pseudo-R-Squared	10.58%	27.31%	20.92%
Wald χ^2	3,332.10	7,706.34	4,543.26

Table 8

This table presents coefficients from pooled estimations of the following models:

(5) $$\text{Prob}(\text{PURCHASE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(6) $$\text{Prob}(\text{SALES}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 EXERCISE_{i,t} + \beta_{10} RESEARCH_{i,t} + \varepsilon_{i,t})$$

(7) $$\text{Prob}(\text{EXERCISE}_{i,t}=1) = \text{logit}(\alpha + \beta_1\Delta E_{i,t+1} + \beta_2 POS_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_3 NEG_{i,t+1}*(\Delta E_{i,t+1})^2 + \beta_4 MARET_{i,t+1} + \beta_5 \log(BM_{i,t}) + \beta_6 \log(MVE_{i,t}) + \beta_7 MARET_{i,t} + \beta_8 GRANT_{i,t} + \beta_9 RESEARCH_{i,t} + \varepsilon_{i,t})$$

All variables are as defined in Appendix 1. Logit marginal effects with standard errors robust to heteroscedasticity and correlation across within-firm observations. Two-tailed p-values are presented in parentheses.
Persistent Earnings observations are observations where the sign of ΔE_{t+1} equals the sign of ΔE_{t+2}; Non-Persistent Earnings observations are observations where the signs of the two earnings innovations differ.

Non-linear Estimation of Relation between Future Earnings and Insider Trading Decisions by Earnings Persistence			
Variable	Prob($\text{PURCHASE}_{i,t}=1$)	Prob($\text{SALES}_{i,t}=1$)	Prob($\text{EXERCISE}_{i,t}=1$)
Persistent Earnings (n=24,821)			
Intercept	-0.117 *(0.157)*	-2.449 *(0.000)*	-2.931 *(0.000)*
ΔE_{t+1}	0.137 *(0.000)*	-0.286 *(0.000)*	-0.307 *(0.000)*
$POS*(\Delta E_{t+1})^2$	-0.069 *(0.007)*	0.138 *(0.001)*	0.114 *(0.001)*
$NEG*(\Delta E_{t+1})^2$	-0.057 *(0.440)*	0.528 *(0.000)*	0.540 *(0.000)*
Non-Persistent Earnings (n=9,706)			
Intercept	-0.206 *(0.091)*	-2.574 *(0.000)*	-3.151 *(0.000)*
ΔE_{t+1}	-0.096 *(0.196)*	0.207 *(0.088)*	0.041 *(0.716)*
$POS*(\Delta E_{t+1})^2$	0.107 *(0.447)*	-0.654 *(0.005)*	-0.441 *(0.029)*
$NEG*(\Delta E_{t+1})^2$	0.139 *(0.396)*	-0.013 *(0.965)*	0.420 *(0.168)*

Table 9

Empirical Timeline

This figure presents a timeline pertaining to the measurement of insider trading and future firm performance variables. For each firm-year observation, insider purchases ($PURCHASE_{i,t}$), sales ($SALES_{i,t}$), and option exercises ($EXERCISE_{i,t}$) are measured for firm i over fiscal year t. Contemporaneous and future firm performance is measured over fiscal year t and t+1 respectively. FYE_t denotes the fiscal year end for year t. EA_t denotes the announcement of year t's annual earnings innovation ($\Delta E_{i,t}$). All variables are as defined in Appendix 1.

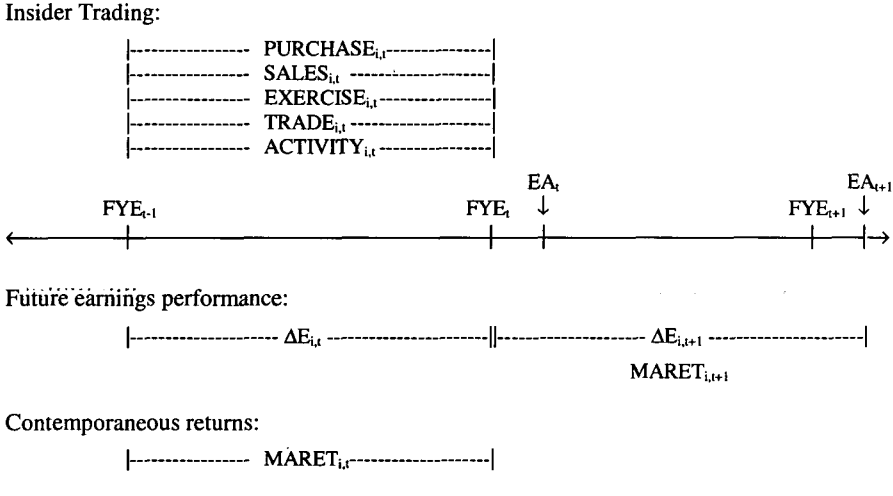

Figure 1

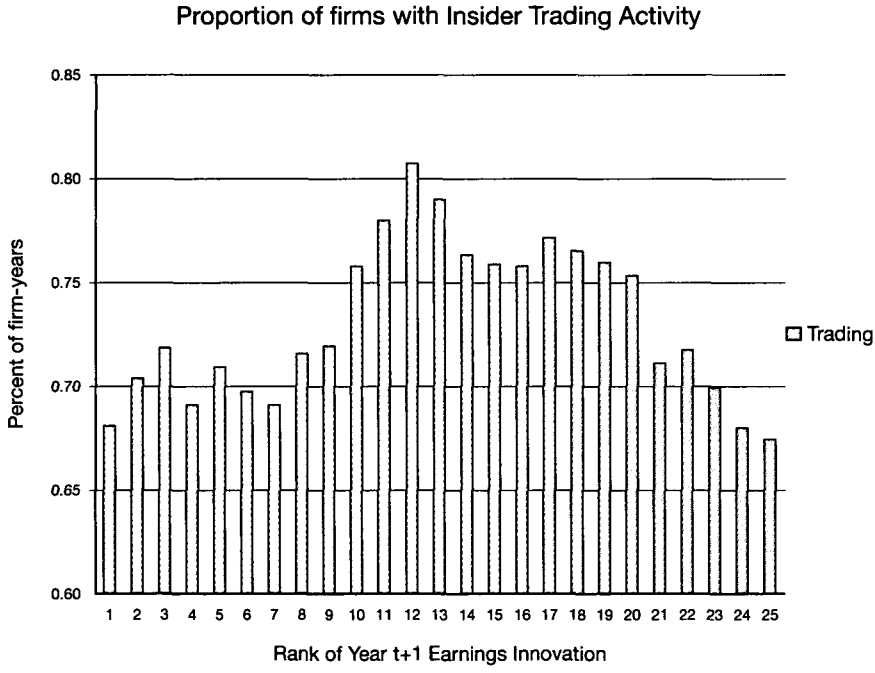
Proportion of firms with Insider Trading Activity
Percent of firm-years
0.85
0.80
0.75
0.70
0.65
0.60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Rank of Year t+1 Earnings Innovation
Trading

Figure 2

INSIDER TRADING AND PREDICTION MARKETS

Robin Hanson[*]

ABSTRACT

Rules limiting insider trading may encourage investment, but they may also discourage exploration of new less-decentralized corporate information processes, such as prediction and decision markets. I review standard corporate information processes and insider trading rules, outline possible improvements that prediction markets might offer, and consider ways we might change insider trading rules to allow both more flexible innovation of information processes and better-encouraged investment.

I. INTRODUCTION

Many have argued that insider trading laws encourage investment in public corporations by assuring investors that they are not trading against other investors with vastly superior information. I will suggest that this benefit, even if real, now comes at the cost of discouraging innovation in our corporate informational institutions, and that this is a needless cost, since there are better ways to encourage both investment and institutional innovation.

The regulators who shape insider trading laws do track changes in corporate institutions and environments in order to adapt insider trading law accordingly. However, regulators, though well-meaning, face an uphill battle: in order to adapt insider trading law effectively, these regulators must predict the ways in which corporate institutions *could* change in response to the opportunities offered by alternative laws. Our regulatory institutions are simply not suited to this task. In addition to the difficulty of conducting accurate counterfactual and predictive analyses, the attendant costs may simply be too high—and the benefits too small—to make this a problem even worth addressing from the regulators' point of view.

Prediction markets are a new information technology that seems to offer great promise in reforming corporate information institutions. We can imagine several concrete ways in which prediction markets may greatly improve the cost and performance of corporate information collection and

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decision making. Although the full potential of prediction markets is yet unknown, it is clear that insider trading laws, as currently constituted, present a substantial barrier to their wider adoption. This, in short, illustrates one area in which insider trading laws could discourage institutional innovation.

In this paper I will first summarize the key features of both our standard corporate information institutions and current insider trading laws. I will then outline possible improvements that prediction markets might offer. Finally, I will elaborate on the barriers that current insider trading laws impose, and consider some ways those laws might be adapted to reduce this problem.

II. CORPORATE INFORMATION INSTITUTIONS

In the modern publicly-traded firm, share owners delegate control to a board of directors, who in turn delegate all but a few key decisions to the chief executive officer (CEO), the locus of firm coordination. Because the successful coordination of corporate activities often entail huge gains for the firm, the CEO's time and attention becomes an extremely valuable and limited resource. This justifies careful selection of a high quality CEO who is given strong financial incentives.

The need to take full advantage of this precious locus of control dominates the organizational design of firms. Because the CEO can be intimately familiar with only a few other people, the CEO generally oversees "insiders" who coordinate particular areas within the firm. (The high opportunity cost of the limited time and attention of these insiders likewise justifies their careful selection and strong financial incentives.) Like the CEO, these insiders can know only a few other people intimately; these insiders select yet more "coordinators," who control over even smaller areas. This process of downstream delegation and area specialization may continue indefinitely, depending on the size and nature of the firm. We thus get the usual hierarchy of firm control.

Focusing on a prescribed area of the firm's operations, coordinators can, to some extent, ignore corporate activity that proceeds as expected without needing further coordination. Coordinators within an area instead focus on changes which could result in better coordination. A coordinator must therefore monitor activity in and near his area for signs of such changes. He must also listen to proposals for changes, design alternative changes and ways to effect them, negotiate change details, and propose changes to more central loci of coordination.

In order to get the most from each coordinator's limited time and attention, the firm employs many specialists to aid the job of coordination. The tasks of these coordination specialists include: managing coordinator schedules and other administrative processes, conducting preliminary low level meetings so that high level meetings can go smoothly, collecting and

presenting summary statistics, researching particular change ideas, preparing and reviewing presentations and reports, and evaluating lower level job candidates. The coordination specialists, in short, perform duties essential to the coordinator's prescribed area of operations that do not require the coordinator's direct attention. Most significant to the firm, the introduction of new kinds of coordination specialist can dramatically improve efficiency by freeing up coordinators' limited attention for other tasks.

Information is a key input needed to achieve coordination. Many kinds of relevant information are relatively easy to acquire, especially with modern technologies of computation and communication. The standard "information processing" approach, for example, has people fill out forms. The coordination specialist, using this standard approach, collects the information from these forms—which includes everything from personal information, to consumer complaints, to basic market research—and then rearranges, aggregates, and distributes the results. Over time, improvements in information processing technology have allowed firms to use this information more effectively.

But the most important pieces of firm information cannot be so readily obtained. The firm needs information on key corporate issues that no simple form, or combination of forms, can provide. What will sales be next quarter, and how will that depend on price, marketing, personnel, and product features? What would be the cost and sales of potential new products? What will competitors and manufacturers of complementary goods or services do next? What would increase the efficiency and reliability of manufacturing or distribution? What projects will be completed when, and how does that depend on project definitions? Who would be good at what job? Who wants what job? Who will propose what changes, and what would it take to get their support?

The answers to such vital questions sit inside people's heads, but because this knowledge confers important strategic advantages, simply asking people to fill out a form is a completely inadequate method to acquire or distribute this information. While organizations would probably benefit if they could get everyone inside to reveal their expectations and intentions to each other, organizations do not have very effective mechanisms to achieve this goal. People can lie about their expectations and intentions, and it can be very hard to tell if they are lying. Furthermore, even when a coordinator can get someone to give him an honest answer, that coordinator will usually not want to honestly share that answer with others around him. The problem, in other words, is that, not only do people have knowledge, they are aware that their knowledge has strategic value.

Coordinators thus have a natural tendency to keep the key information they acquire "close to their vest." In fact, much of the coordination activity within a firm seems to consist of careful strategic dances in which people are slowly enticed to reveal some of these expectations and intentions to each other. Coordinators try to structure information flows within their

areas so as to minimize uncontrolled leaks to outsiders while preserving access for those with a "need to know." Indeed, managers often say it is easier to find out what is going on at competitor firms than at other divisions of their own firm (Hatter and Trapasso 2007).

The net result is that key information about a firm's core coordination activities tends to be limited to insiders and a few coordination specialists. Since firms also need to coordinate with suppliers, customers, producers of complementary goods, competitors, and regulators, some key information will also need to be shared with these other groups. Obviously, firm coordinators are even more careful to limit how much key information they share with these outside groups.

Outside observers of a firm (and low-level employees within the firm not privy to insider information) will thus form expectations based on rather limited information. And yet these expectations are of great importance to a firm. These expectations influence the demand of customers, the morale and efforts of employees, the cooperativeness of suppliers and complementers, the good will of lenders, and, most importantly, the willingness of investors to purchase shares in the firm.

An important consideration for each visible corporate action is therefore how it will be interpreted by wider audiences. We should expect many aspects of firm organization and coordination to function primarily to demonstrate that the organization is expert, well-informed, and well-coordinated. Some widely visible aspects of firm procedures may exist purely as a matter of show and not because they substantially improve coordination within the firm. Furthermore, some decisions will be made not because coordinators think coordination will improve, but because coordinators anticipate that a wider audience will believe that improved coordination would result (Brandenburger and Polak 1996).

III. INSIDER TRADING REGULATION

Speculators emerge anytime people trade a durable identical item with low transaction costs. The speculators attempt to profit by buying low and selling high, and so walk away with cash. Anyone who can find a systematic way to predict future prices can profit in this way, and the higher the volume of trade for non-speculative reasons, the more profits can be gained by speculative trade. The net result is that, in high volume markets, current prices embody so much information about future prices that it is very hard to find useful information on future prices beyond current prices.

Bonds and shares of public corporations are durable identical items that can be traded with low transaction costs and are traded in large volumes. Stock and bond market prices therefore embody a great deal of information about future firm profits. Since such prices are public, they help to coordinate expectations about firm activities among the wider world of employees, suppliers, customers, lenders, and investors. Of course, prices

clearly encode only a few expectations about a few key dimensions of the firm's future performance. Many other dimensions remain and price analysis alone can not account for them.

The willingness of ordinary people to invest in a company via stock and bond markets depends on the rate of return they can expect, which in turn depends on two main factors: price accuracy and adverse selection. First, an ordinary person is more willing to invest in firms when prices are more accurate. Accurate prices give clearer signals about which firms are more profitable, allowing the investor to better select the profitable firms for investment. Second, in trades with an elite, often better-informed, trader, an ordinary person will lose on average. This adverse selection in trading profits reduces ordinary people's desire to trade.

Net trading may thus be hurt by an asymmetry in the information available to ordinary traders on one hand and elite traders on the other. If elite traders had ample capital to meet the demand for firm investment, or if information about firm profits was spread evenly across ordinary people, there would be no problem. However, this is certainly not the case. Elite trading may also harm the firm in other ways. For example, elite traders may reveal information to markets that the firm would rather keep secret, or elite traders might sabotage the firm in order to profit from being the first to know about the firm's diminished real value.

If elite traders hurt firms on net, but did not substantially affect third parties, then it would make sense to let each firm decide whether to allow elite traders to trade its assets. Assuming sufficient freedom of contract, firms would seem to have sufficient means to deal with the problem. Firms could disseminate information widely enough to reduce or even eliminate the informational advantage of elite traders. Firms also could prohibit their stocks and bonds from being traded on exchanges which include elite traders. Firms could exercise control over people with whom they form contractual relations, such as employees. For this class, a firm might include contract terms that prohibit any dealings with elite traders.

For many years public corporations did not avail themselves of such opportunities to discourage elite traders. In 1934, Congress responded to the 1929 stock crash by prohibiting the use of "any manipulative or deceptive device" in trading securities, and authorized the Securities and Exchange Commission (SEC) to create "rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors" (Bainbridge 2001).

In the name of encouraging investment, the SEC has used its authority over the years to slowly strengthen rules against "insider trading," and to require more structured disclosure by firms (Bainbridge 2001). In the last two decades European firms have been required to follow similar rules. Detailed rules now describe the kinds of information firms must declare on standardized annual, quarterly, and monthly reports. Firms are forbidden to

provide any substantial information to investors not previously or simultaneously disclosed in public press releases.

Generally, any person who obtains any substantial information about a firm unavailable to the public at large, and who has gained the information from someone within, or otherwise connected to, the firm, is forbidden from trading that firm's assets. People are excused only if they committed to these trades before they learned this information. Corporate executives, directors, and large shareholders can not sell short, nor may they sell for a profit within six months of buying, and they must report their trades to the SEC within two business days.

Insider trading rules appear to have had a substantial effect on behavior. Corporate insiders now diligently report their trades; companies are now careful to follow the letter, if not the spirit, of disclosure rules. For example, Enron executives were convicted not of their failure to disclose, but of making it difficult for analysts to find relevant documents (Gladwell 2007). Companies are very cautious about revealing important information to anyone; they require a substantial need to know, are careful to get approval, and keep detailed records. Companies are now in the habit of declaring certain periods of time, such as right after an annual report is released, as relatively safe times for employees to trade.

On the other hand, it is clear from price movements that only a tiny fraction of price relevant information about companies is revealed near the times when companies officially disclose information. Even then, most of that information is embodied in prices *before* the official disclosure. It also seems reasonably clear that there is still a great deal of inequality in how well informed traders are. Bid-ask spreads give us direct estimates of the average information contained in each trade, and the rates of return achieved by ordinary people suggest that their trades are based on below average information.

Another aspect of the information asymmetry between ordinary and elite traders is the ability of the elite trader to utilize information. For example, hedge funds can consistently beat the market average, at least before their costs of analysis and administration are taken into account. While they may not beat the average after these costs are considered, the people they traded with were losers on average nonetheless. The endowments of Ivy League universities get much higher than average returns (Rupp 2007). Both of these groups are obviously more knowledgeable than average. Also, it seems clear that corporate insiders who declare their trades do in fact have substantially better information about their firms than ordinary people: they earn about 0.40% per month in excess returns (Jeng, Metrick, and Zeckhauser 1999).

We clearly have many elite traders in our stock markets, and we forgo opportunities to reduce unequally informed trading, such as by forbidding stock analysts from buying and selling in stock markets. Nevertheless, some data suggest that our insider trading rules encourage net investment

(Bhattacharya and Daouk 2002). Other data suggests that insider trading rules lower the value of firms with high agency costs (Durnev and Nain 2007). Thus, it is possible, though hardly obvious, that our insider trading laws provide a net benefit to firms, compensating for their (as yet unexplained) reluctance to use alternative private mechanisms to deal with the problem of information asymmetry between ordinary and elite traders.

IV. PREDICTION MARKETS

As we mentioned above, speculative markets display a powerful ability to induce speculators to collect information and combine it into an aggregate estimate of future prices. For example, stock markets aggregate information about which firms are the best investments. It is hard to find relevant information that such market prices do not embody simply because there exists a profit incentive to find neglected information (Lo 2000; Strumpf and Rhode 2004). Speculative markets work well not only because they reward accuracy and punish error, but also because they encourage self-selection of participants. People who realize they are not as well informed as average traders tend to stay away. People who do not realize they are not well informed lose and then go away.

Remarkably, in every known head-to-head field comparison between speculative markets and other forward-looking institutions, the speculative markets have been at least as accurate. More often than not, they prevail. Orange juice futures improve on National Weather Service forecasts (Roll 1984), horse race markets beat horse race experts (Figlewski 1979), Oscar markets beat columnist forecasts (Pennock, Giles, and Nielsen 2001), gas demand markets beat gas demand experts (Spencer 2004), stock markets beat the official NASA panel at identifying the company responsible for the Challenger accident (Maloney and Mulherin 2003), election markets beat national opinion polls (Berg, Nelson, and Rietz 2003), and corporate sales markets beat official corporate forecasts (Chen and Plott 2002).

Historically this information aggregation ability has been consistently observed in conventional markets. Recently, some have started to create "prediction markets" expressly to produce these informational effects (Wolfers and Zitzewitz 2004; Spann and Skiera 2003; Pennock et al. 2001; and Hanson 1990, 1995). Such markets are being used to estimate things like product sales, project completion dates, disease rates, the effectiveness of software security, and election outcomes. Speculative markets can also directly estimate outcomes *conditioned* on particular decisions or events. For example, prediction markets have been used to predict which U.S. party's candidate will become president, given the particular candidate nominated by each party; in addition, prediction markets have been used to forecast changes in the global economy, conditioned on the advent of a bird flu epidemic (Hanson 1999; Berg and Rietz 2002).

Prediction markets tend to be very low volume markets, as they usually have few "hedging" traders. However, this does not prevent them from having informative prices. Prediction markets only need enough volume to induce a few people who have relevant information to trade and thereby reveal their information.[1] People may want to trade in these markets for financial or social reasons. They might expect to profit financially, either because they disagree or because someone has subsidized trading there. They might trade in order to express a point of view, to share their feelings with a larger community, or even to acquire the right to brag about their accuracy.

While the cost to create a prediction market is generally independent of the topic, the value of such a market can depend greatly on the topic. Thus, the best applications of predictive market technology involve topics with the highest value. There has been interest in creating prediction markets on high value topics such as major government policies and major large industry trends. Anti-gambling laws, commodity trading regulations, and security trading regulations all make it expensive to create real money markets on these topics. Commodity and security regulation are primarily designed with high volume markets in mind, making them largely unsuitable for low volume prediction markets.

There have been two primary responses to this legal barrier. First, there have been some public play money markets on popular topics. For example, the Hollywood Stock Exchange is a play money market where thousands forecast which movies and movie stars will do well. The Foresight Exchange focuses on scientific and technical claims, which users themselves introduce. Without the financial incentives that real money trading can offer, such markets are limited to topics where strong social incentives to trade can be found.

The other response to legal barriers has been to focus on markets within organizations. Even within organizations, play money markets are the easiest to create under the usual scenario of a low budget and weak management support. Such "morale markets" have been created within several companies, such as Google, where ordinary employees in their free time trade on topics that ordinary employees find fun and interesting. Higher management does not suggest topics for these markets, or pay attention to who wins and loses. Management seems to allow morale markets primarily as a way to track general opinion, to improve morale by making employees feel their voice is heard, and simply to participate on the prediction markets fad.

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[1] With good trading institutions, markets can function even with very few traders.

A. *Decision Markets*

Where management support is stronger, more serious "decision markets" are being tried. These markets tend to be on topics chosen by management to be useful inputs to important decisions, and trading in them is often limited to a small group of managers or related experts. Traders often have a stronger incentive to participate in these markets, either because real money is on the line, because management pays attention to who wins or loses, or because market prices may influence important decisions. These real money markets avoid gambling and other regulations because the organization pays everyone's stakes: no one contributes their own cash to trade.

Results from these decision market trials have been mixed. Sometimes uninteresting topics are chosen. Sometimes the group is too small or insufficient incentives are offered to get enough of them to participate or the consequences of losing are too weak to make the market more than a voting mechanism. With enough participation and incentives to win, markets are accurate, but sometimes other information mechanisms are relatively efficient, making markets only marginally more accurate than other sources.

Sometimes even decision markets that substantially improve accuracy on important topics are felt to be too disruptive to corporate culture. People complain that it is hard for ordinary managers to understand how to trade, and that market prices distribute key information to an uncomfortably wide audience. The problem of understanding how to trade can be overcome with education and better trading interfaces. The problem of distributing information too widely can be overcome by mechanisms that hide the market consensus from traders. On the other hand, the fact that information distribution is even perceived as a problem points to larger issues.

As we discussed earlier, in standard corporate institutions key information is usually held very "close to the vest," in part to satisfy insider trading rules, but more fundamentally because such information has great strategic value to those who hold it. So, naturally, managers feel threatened by any mechanism that would distribute key information more widely, effectively surrendering their strategic advantage.

From the point of view of the firm as a whole, however, mechanisms that can distribute key information more widely offer great efficiency advantages. The time and attention of firm coordinators is a crucial scarce firm resource, which is now devoted, in great measure, to slowly and painfully extracting key information from other coordinators. Firms ought to want coordinators to reveal their key information to each other, provided this information could stay safely inside the firm.

Decision markets may well be just such a mechanism for greater distribution of key information. With widespread use of decision markets, not only might managers need to spend less time creating and extracting key

information from each other, but a new class of coordination specialists might form to take over many of these tasks. Most market information might come from trades by people other than precious coordinators.

Instead of spending their time thinking about which projects have what potential, or who would be good at what job, or trying to read other coordinators' opinions on such things, firm coordinators could instead simply accept decision market prices at face value. Coordinators could thus focus their attention on those determinations that they are best suited to make: what questions to ask decision markets, how to reward market winners, and how to maximize opportunities for firm coordination in general.

Front line employees and top managers are now the groups most interested in prediction markets while mid-level managers are less enthusiastic. This makes sense if prediction markets are a disruptive technology that, by distributing key information, can put mid-level managers at a strategic disadvantage relative to their peers. Front line employees, on the other hand, may use prediction markets to more easily contribute to key corporate decisions. These strategic problems indicate that prediction markets need high level management support to be adopted. If that support is wanting, adoption of prediction markets may be delayed.

Delay might not be bad for a firm. CEOs must be cautious about adopting such a disruptive technology, as firms that adopt disruptive technologies too quickly often suffer as a consequence. There are many details still to work out in adapting prediction markets and other corporate institutions to each other, and each firm may well prefer that other firms first work out these details, and thus learn from their competitors' mistakes. Furthermore, even if a disruption benefits the firm overall, it may not benefit the CEO himself if he is not well suited to run the new model firm. In short, even if decision markets can fulfill all of their promise, their development and adoption may entail much trial and error.

V. INSIDER TRADING RULES AND PREDICTION MARKETS CONFLICT

Familiar insider trading regulations have been chosen to match our familiar corporate information institutions. In our familiar institutions, firms try hard to limit key corporate information to a few corporate insiders. Regulators, in order to encourage investment, traditionally have tried to reduce trader information inequality by placing strict limitations on the trades of a few corporate insiders. And since key corporate information must eventually be revealed to markets, regulators have focused on forcing this revelation to happen via the channel of official corporate disclosures to the public.

Corporations are now exploring many "wisdom of the crowd" technologies, including wikis, blogs, collaborative filtering, link-popularity-based-searches, and prediction markets (Surowiecki 2004; Sunstein 2006). These approaches involve a wide community of people in a more decentral-

ized and less structured processes of creating and sharing information. While these approaches all have potential applications to the problem of asymmetric corporate information, they also run afoul of familiar insider trading laws to a greater or lesser degree.

A firm that included its entire membership in a decentralized, less structured, process to manage key corporate information would not only risk serious internal disruption and external information leaks, it would make everyone in the know a vital corporate insider. In order to protect insider information, each person involved must thus exercise discretion in his or her trades of firm stock. Each person would also have a solemn duty to keep protected information from leaving the firm. While wisdom of crowd technologies takes important advantages from synergies from overlapping topic areas, most such overlaps would be forbidden here. Unless the information process was clearly prevented from sending information signals across the firm boundary, it would violate disclosure rules.

Insider trading rules are one of the reasons that managers have given for not applying prediction markets to the highest value corporate topics. Simple cost benefit analysis suggests we apply prediction markets to the highest value topics we can find. In a corporation, those high value topics are the key corporate decisions, such as the decision to merge, to introduce products, to set price points, to move into new geographic regions, or even to change the CEO (Hanson 2006). It would be straightforward to directly ask decision markets whether such choices would be good for the firm's stock value.

Since one of the main advantages of prediction markets is that they do not require one to know who has more relevant knowledge, one could reasonably want to open participation in such markets to a large group, such as all employees. But allowing all employees access to key corporate information could create an insider trading nightmare.

VI. POTENTIAL RESOLUTIONS

How can we resolve this conflict? An obvious, simple, and robust approach would be to return the choice of regulating insider trading to individual firms. It is hard to identify an externality that would justify putting this decision into regulator hands. The most plausible story I can imagine is that boards of directors might ignore what is good for stockholders and just do what is good for insiders. If we did not find this story very plausible, we could just let firms decide how to weigh any costs from discouraging investment via adverse selection against any benefits of using prediction markets to improve corporate information and coordination efficiency. This solution, though compelling, seems politically infeasible for now.

Another relatively robust approach has been suggested repeatedly over the years:

> A [2003] blue-ribbon commission convened to address recent financial scandals and subsequent decline in investor confidence recommended that insiders be required to preannounce sales of stock in their companies. The commission's call for insiders to preannounce their sales echoes proposals made over a decade ago in the legal press, law reviews, and the U.S. Congress that would require preannouncement of all trades (Huddart, Hughes, and Williams 2004).

A general version of this proposal would offer ordinary people much *more* protection from adverse selection in trades than current insider trading laws. It would also allow individuals and organizations much *more* flexibility in choosing their information policies, flexibility that they could use to explore decision markets and other new decentralized information processes.

The general proposal would be to classify traders into ordinary traders and several levels of elite well-informed traders (WIT), and to only allow trading between levels when the more informed trader has announced his specific intended trade ahead of time. In well-functioning markets, even an hour might be plenty of notice. Such a rule would largely eliminate adverse selection between levels; adverse selection would mainly remain between traders of the same level.

Those who had to preannounce their trades would find it somewhat harder to use markets to hedge their risks (Huddart et al. 2004), but being labeled a WIT should be much less constraining than being labeled an insider under today's insider trading rules. WITs could be allowed to become as well informed as desired, and to disclose information selectively to others (within their WIT level). There would be much less need for formal disclosure rules.

Under this proposal, WITs would have the option to form their own special markets to trade with each other, or to flag offers in a general market outside their WIT level, to warn less informed traders. A WIT label could be applied not only to corporate insiders, it could also be applied to well-informed outsiders such as hedge funds, University endowments, or congressmen.

If there were public real money prediction markets about a firm, a third approach would be to allow a WIT to make any trades that were orthogonal to stock value. When there are many assets related to a stock, there is a large space of possible trades that should leave the price of the stock unchanged. If each WIT were freely allowed to make all such trades, they could thereby reveal a wide range of information in prediction markets, without creating adverse selection for ordinary people trading stock.

If there were a private prediction market about a firm, with prices not visible to the public, a fourth approach would be to make public the implications of that prediction market for stock prices. Part of that private market would include a stock price, and that price would be continuously announced to the public. People who were able to trade in that private market would have to, perhaps an hour in advance, declare their intention to make a particular regular stock trade. This internal market might be shut down periodically to facilitate regular stock trades.

There seems to be a number of approaches that could allow the wide use of prediction markets within firms that also keep ordinary people from suffering inefficient adverse selection in stock trades. But the status quo insider trading rules are not conducive to any of these approaches.

VII. CONCLUSION

The attention of CEOs and other corporate coordinators is a precious resource, much of which is now spent generating and exchanging expectations and intentions about important corporate actions. Prediction markets promise to delegate much of these tasks to coordination specialists, freeing coordinators to attend to other coordination issues. A long hard road must be traversed before innovation can realize this promise and it will not happen very soon.

Nevertheless, it is important to consider how current regulations may discourage this innovation process, by making it hard to involve a larger community of people in key corporate information processes. We can identify several other approaches to such regulation which seem both friendlier to wider use of corporate prediction markets and more effective at reducing the adverse selection in trades that can discourage investment. Regulators should give more consideration to such alternatives.

REFERENCES

Bainbridge, S. M. 2000. Insider trading: an overview. In *Encyclopedia of Law and Economics*, ed. B. Bouckaert and G. D. Geest, 772-812. Cheltenham: Edward Elgar Publishing Limited.

—— 2001. The law and economics of insider trading: a comprehensive primer. Working paper, University of California—Los Angeles. Los Angeles, California.

Berg, J. E., F. Nelson, and T. A. Rietz. 2003. Accuracy and forecast standard error of prediction markets. Working paper, Henry B. Tippie College of Business Administration. Iowa City, Iowa.

Berg, J. E., and T. A. Rietz. 2003. Prediction markets as decision support systems. *Information Systems Frontiers* 5 (1): 79-93.

Bhattacharya, U., and H. Daouk. 2002. The world price of insider trading. *The Journal of Finance* 57 (1): 75-108.

Brandenburger, A., and B. Polak. 1996. When managers cover their posteriors: making the decisions the market wants to see. *RAND Journal of Economics* 27 (3): 523-41.

Carlton, D. W., and D. R. Fischel. 1983. The regulation of insider trading. *Stanford Law Review* 35 (5): 857-95.

Chen, K.-Y., and C. R. Plott. 2002. Information aggregation mechanisms: concept, design and implementation for a sales forecasting problem. Working paper, California Institute of Technology. Pasadena, California.

DeMarzo, P. M., M. J. Fishman, and K. M. Hagerty. 1998. The optimal enforcement of insider trading regulations. *Journal of Political Economy* 106 (3): 602-32.

Durnev, A., and A. Nain. 2007. Does insider trading regulation deter private information trading? International evidence. Working paper, McGill University. Montreal, Quebec, Canada.

Figlewski, S. 1979. Subjective information and market efficiency in a betting market. *Journal of Political Economy* 87 (1): 75-88.

Gladwell, M. 2007. Enron, intelligence, and the perils of too much information. *New Yorker* (January 8), 44-53.

Hanson, R. 1990. Market-based foresight—a proposal. *Foresight Update* 10: 1-4.

—— 1995. Could gambling save science? Encouraging an honest consensus. *Social Epistemology* 9 (1): 3-33.

—— 1999. Decision markets. *IEEE Intelligent Systems* 14 (3): 16-19.

—— 2006. You're fired. *Forbes* (October 30), 38.

Hatter, A., and E. Trapasso. 2007. Managers say the majority of information obtained for their work is useless, Accenture survey finds. News release, Accenture. http://newsroom.accenture.com/article_display.cfm?article_id=4484 (last visited May 27, 2008).

Huddart, S. J., J. S. Hughes, and M. G. Williams. 2004. Pre-announcement of insiders' trades. Draft (June 28). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=216168 (last visited May 27, 2008).

Jeng, L. A., A. Metrick, and R. Zeckhauser. 1999. The profits to insider trading: a performance-evaluation perspective. Working paper, Harvard University. Cambridge, Massachusetts.

Leland, H. E. 1992. Insider trading: should it be prohibited? *Journal of Political Economy* 100 (4): 859-87.

Lo, A. W. 2000. Finance: a selective survey. *Journal of the American Statistical Association* 95 (450): 629-35.

Maloney, M. T., and J. H. Mulherin. 2003. The complexity of price discovery in an efficient market: the stock market reaction to the Challenger crash. *Journal of Corporate Finance* 9 (4): 453-79.

Maug, E. 2002. Insider trading legislation and corporate governance. *European Economic Review* 46 (9): 1569-97.

Pennock, D. M., S. Lawrence, C. L. Giles, and F. A. Nielsen. 2001. The real power of artificial markets. *Science* 291: 987-88.

Roll, R. 1984. Orange juice and weather. *American Economic Review* 74 (5): 861-80.

Rupp, D. 2007. 2006 NACUBO endowment study. National Association of College and University Business Officers. http://www.nacubo.org (last visited May 27, 2008).

Spann, M., and B. Skiera. 2003. Internet-based virtual stock markets for business forecasting. *Management Science* 49 (10): 1310-26.

Strumpf, K. S., and P. W. Rhode. 2004. Historical presidential betting markets. *Journal of Economic Perspectives* 18 (2): 127-41.

Sunstein, C. R. 2006. *Infotopia: how many minds produce knowledge.* Oxford University Press.

Surowiecki, J. 2004. *The wisdom of crowds.* Doubleday.

Wolfers, J., and E. Zitzewitz. 2004. Prediction markets. *Journal of Economic Perspectives* 18 (2): 107-26.

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BOOK REVIEW

Hui Huang's *International Securities Markets: Insider Trading Law in China (2006)*

*Richard A. Booth**

In *International Securities Markets: Insider Trading Law in China*,[1] Hui Huang,[2] has undertaken to describe the state of insider trading law in China and the rest of the world—particularly the United States—and to suggest how the law of China should be applied in the context of China's emerging economy and markets. Needless to say, this is a prodigious task. The law of insider trading in the United States has been evolving since at least 1961, when the SEC decided *In re Cady, Roberts*.[3] But even with almost fifty years of experience, the debate continues in the United States about what constitutes insider trading, how the law should address it, and indeed whether it should be illegal at all. To complicate matters further, other countries have adopted approaches to insider trading that differ significantly from that of the U.S.[4]

In China, there is no lack of law relating to insider trading. As Huang describes it, the securities law of China (as adopted in 1999) includes five articles in the civil code that specifically address insider trading, plus one other that sets forth twelve categories of information deemed to be material and so presumably to define the kind of information that might give rise to insider trading.[5] According to Huang, these provisions were taken directly from U.S. law. The problem is that it is unclear what this law means and how it should be applied. Should China follow the U.S. and interpret the law of insider trading as based ultimately on fiduciary duty as in *Chiarella*,

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1 HUI HUANG, INTERNATIONAL SECURITIES MARKETS: INSIDER TRADING LAW IN CHINA (Kluwer Law International, 2006).

2 Hui Huang is a Lecturer in Law at the University of New South Wales, where he specializes in business law.

3 *See generally* In re Cady, Roberts & Co., 40 S.E.C. 907 (1961).

4 HUANG, *supra* note 1, at 177-79, 197-203.

5 *Id.* at 22-23, 125-30.

Dirks, and *O'Hagan*?[6] Huang finds this theory confusing if not incoherent. Moreover, China does not have a well-developed law of fiduciary duty.[7]

In the end, Huang finds U.S. law wanting and recommends that China adopt what he calls the *equality of access* theory of insider trading, which he carefully distinguishes from the *parity of information theory*.[8] Huang, who seems to have read almost all of the U.S. scholarship on insider trading, suggests that the U.S. shied away from the former because of confusion that it meant the latter.[9] To the contrary, I would argue that U.S. law is about equality of access as Huang advocates. The ultimate question in the U.S. fiduciary duty-based system is *how* one obtains material nonpublic information, and thus whether it may lawfully be used for personal gain.

This is strange reading for someone from the common law tradition. The notion that one could have a well developed law of insider trading set down in a civil code and yet not know what it means is bizarre. In the U.S., as Holmes aptly put in *The Common Law*, the life of the law has been experience. We adopt statutes after we find a problem that does not respond to common law solutions.

In China, there have been eleven cases of insider trading since 1991.[10] Although Huang suggests that this constitutes vigilant enforcement, he nonetheless devotes considerable space to the question of whether insider trading is a problem in China and why.[11] He describes his book as a qualitative empirical study of insider trading. By that, he means that it was based on thirty-one interviews with regulators, market professionals, directors, investors, lawyers, judges, journalists, and academics.[12] On the basis of this study, Huang concludes that insider trading is widespread and harmful.[13] Huang seems to think that it is very important for China to crack down on insider trading because the U.S. does so. The idea seems to be that for the market to be robust, it must emulate the U.S. market.

For an American reader, one of the more interesting features of the book is its description of the Chinese stock markets and corporation law. Turnover is much higher in China than it is in the U.S. In 1998, turnover on the Shanghai Exchange was 355% compared with 70% on the New York Stock Exchange.[14] But these numbers are deceptive in that, as of 1998, only about 34% of the shares of companies listed on the Shanghai exchange

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6 Chiarella v. United States, 445 U.S. 222 (1980); Dirks v. S.E.C., 463 U.S. 646 (1983); United States v. O'Hagan, 521 U.S. 642 (1997).

7 HUANG, *supra* note 1, at 163-67.

8 *Id.* at 170-73.

9 *Id.* at 173-77, 321-39.

10 *Id.* at 28-37.

11 *Id.* at 37-93.

12 *Id.* at 311-15.

13 *Id.* at 37-56, 95-124.

14 *Id.* at 62.

were tradable.[15] Thus, it would appear that the rate of turnover in China is about fifteen times what it is in the U.S. That suggests that there is much more stock-picking going on in China than in the U.S.[16] Accordingly, investors in China *should* be much more worried about insider trading than U.S. investors, who appear to follow more of a buy-and-hold strategy. (There is no mention in the book of mutual funds or other institutional investors, except for brokerage houses that appear to be engaged in active trading.)

Huang argues that insider trading is widespread in China because, among other reasons, there are problems with executive compensation and the law governing corporations.[17] According to Huang, the median salary of directors and senior officers in China was about $4,000 in 1998.[18] For example, the chairman of Houjian Corporation was paid $4,400 in 1998, while his corporation had sales of about $1 billion dollars that same year.[19] Stock options are not widely used in China. There are several reasons for this. Generally speaking, Chinese corporations do not have authorized but unissued shares. Nor are they permitted to buy back their own shares except in very limited circumstances. Also, officers and directors cannot sell their shares while they remain in office.[20]

Moreover, according to Huang, the Chinese government controls the number of listed companies in China with a quota system of sorts.[21] Thus, it appears that many companies seek a listing on one of the stock exchanges and proceed to sell stock before they have figured out what to do with the money.[22] The suggestion seems to be that a listing is seen as a license to engage in insider trading. Although Huang does not say so, I suspect that insiders account for most of the trading in China. In other words, it seems likely that much of the volume in China comes from insiders trading in each other's stocks.

It is telling that all eleven of the insider trading cases arising in China since 1991 have involved traditional insiders or issuers.[23] In the U.S., most of the notable cases have involved outsiders. Traditional insiders seem to know where the lines are drawn. This suggests that U.S. insider trading law may be more about leaks and keeping secrets than it is about fairness.

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15 *Id.* at 13.

16 Indeed, one study indicates that in recent years, turnover in China has been higher than in any other country in the world. *See* Utpal Bhattacharya & Neal E. Galpin, *The Global Rise of the Value-Weighted Portfolio*, AFA 2007 Chicago Meetings Paper (November 2005), *available at* http://papers.ssm.com/sol3/papers.cfm?abstract_id=849627 (last visited May 27, 2008).

17 HUANG, *supra* note 1, at 66-68.

18 *Id.* at 66-68.

19 *Id.* at 67.

20 *Id.* at 67.

21 *Id.* at 65-66.

22 There does not appear to be any law in China that is the equivalent of the 1933 Act in the U.S.

23 HUANG, *supra* note 1, at 46-48.

Although Huang recognizes that there are significant problems with corporate governance and executive compensation in China, he devotes most of a chapter to lambasting the idea—first propounded by Henry Manne—that insider trading is a victimless crime that likely makes the market more efficient.[24] This is particularly ironic in that Manne advocates insider trading as a medium of executive compensation.

While I am sure that Manne would disagree, the largely option-based system of executive compensation that we have in the U.S. today is quite similar to what he advocated in 1966. Options can be seen as legalized insider trading, albeit with advance disclosure to investors and a cap on the number of shares, and without the risk that goes with the need to buy shares before disclosure of market moving news.[25] In this setting, secretive insider trading is a bad thing. It upsets the bargain between officers and investors. Witness the flap over timing and backdating in connection with option grants.[26] Indeed, I would argue that we could improve on the system we have if option grants were announced in advance or the exercise price were set shortly after a grant.

Huang devotes yet another long chapter to the need for private securities litigation. There, he discusses at length the problem of devising a remedy when no one seems to suffer harm.[27] As I have argued elsewhere, diversified buy-and-hold investors can tolerate what one might call honest securities fraud—fraud without insider trading—but they would favor a remedy in cases in which insiders use the occasion to extract gain from the market. The remedy should be disgorgement of gain (or loss avoided) to the issuer.[28] This is quite the opposite of the system we have that grants a windfall remedy to traders in securities fraud class actions but effectively denies a civil remedy for insider trading. To his credit, Huang discusses (in a footnote) the possibility of issuer recovery as a remedy for insider trading, but he dismisses it because the issuer suffers no harm and, as a non-trader, has no standing to sue under *Blue Chip Stamps*.[29] To the contrary, in a market composed primarily of diversified investors, issuer recovery works just fine. When the issuer recovers, investors recover because the value of the issuer increases by just the amount extracted by the insider. The fact that stockholders may have traded in the meantime is of little concern when

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24 *Id.* at 95-124.

25 Incidentally, options avoid the two biggest problems that Manne largely ignored: the incentive to delay disclosure and the potential for gain from a decline in price.

26 *See* Richard A. Booth, *The Missing Link Between Insider Trading and Securities Fraud*, 3 J. Bus. Tech. L. (2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=975949 (last visited May 27, 2008).

27 HUANG, *supra* note 1, at 253-305.

28 *See* Richard A. Booth, *The End of the Securities Fraud Class Action as We Know It*, 4 Berkeley Bus. L.J. 1 (2007), *available at* http://law.bepress.com/expresso/eps/978/ (last visited May 27, 2008).

29 HUANG, *supra* note 1, at 303 n.280; Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 730-31 (1975).

they own two hundred to three hundred different stocks (as most who invest through institutions, such as mutual funds and pension plans, effectively do). It all comes out in the wash. As for standing to sue, Huang understandably misses the rather fine point of our federal system that the issuer can always sue insiders who gain from a breach of fiduciary duty.[30]

It is not clear to me that anyone should seek to emulate U.S. law in this area. But it is quite clear that an emerging economy like China has problems that differ from those that arise in an economy with well-developed corporation law, established markets, and diversified investors. The bottom line is that China should fix its corporations law before it worries too much about insider trading.

30 *See* Booth, *supra* note 26.

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BOOK REVIEW

Hui Huang's *International Securities Markets: Insider Trading Law in China (2006)*

*Cally Jordan**

It takes courage to tackle the subject of insider trading law in China. Insider trading is a notoriously contentious area for which there is little satisfactory legislative or judicial response, no matter where you look.

To attempt to address issues associated with insider trading law in China, one of the most opaque, idiosyncratic and fast-changing markets in the world, is a perilous task indeed. Hui Huang is to be commended for taking a stab at it in *International Securities Markets: Insider Trading Law in China*, and a good stab it is.[1] But a stab is all it can be, given the paucity of empirical information available and the dynamism of the markets. No sooner have you put one foot in the river, than the river has rushed on.

This is a book written in a hurry. It had to be. This accounts for its main drawbacks. A more thorough and leisurely editing would have improved the readability, balanced out the unevenness in treatment of different sections of the book, caught the odd stylistic infelicity ("black horse" for "dark horse," for example[2]) and provided a more thoughtful and less perfunctory conclusion.

But this is to quibble. The book makes an important contribution to the literature on Chinese markets, for several reasons: its privileged insights into the operation of and perceptions of participants in the Chinese capital markets, its comparative perspective, and its unflinching critique of the clumsy adaptation of United States legislative models and other approaches to insider trading to the Chinese markets.

In the face of the dearth of reliable empirical evidence, Hui Huang adopts two strategies. First, he compiles what known, verifiable, information exists. Each formal insider trading case in China is documented and discussed.[3] In addition, there is a useful tabular summary of the cases for

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[1] HUI HUANG, INTERNATIONAL SECURITIES MARKETS: INSIDER TRADING LAW IN CHINA (Kluwer Law International, 2006).

[2] HUANG, *supra* note 1, at 77.

[3] *Id.* at 28-36.

purposes of quick reference and comparison, which provides a snapshot in time.[4]

Secondly, using a qualitative methodology, Hui Huang conducted thirty-one "semi-structured" (i.e., based on "prearranged questions") and in-depth interviews during September and October 2003, to obtain empirical data on insider trading in China.[5] Interviewees included regulatory and stock exchange officials, market intermediaries, lawyers, financial journalists, judges, academics, a listed company, and three "ordinary investors." The geographic distribution of the interviews included Beijing, Shanghai and Guangzhou.

Huang readily acknowledges the criticisms which have been directed at such qualitative methods, and the resulting anecdotal nature of the results. However, as insider trading is "by nature a hidden form of misconduct," other forms of empirical analysis are simply not practicable.

The observations emerging from the interviews, albeit anecdotal, are fascinating. For example, interviewees were asked their opinion on the views of Henry Manne, who, in a classic 1966 paper,[6] argued for the potential benefits of insider trading. The response of an ordinary investor interviewee? "[I]nsider trading is obviously unfair and harmful. How can he [Professor Manne] think of such silly ideas? He is clearly out of touch with the market and makes those arguments for self-amusement."[7]

Despite the very small number of reported cases, the unequivocal view of those interviewed was that insider trading in the Chinese markets was "widespread," "rife," "everyday," "extensive," and "ingrained."[8] In fact, Huang finds that insider trading seems to be considered a necessity in Chinese markets. As one interviewee noted, "Many people do not trade shares unless they have inside information. We simply have no choice in such an environment."[9] The securities industry was a "big dye vat, and you cannot possibly keep yourself clean."[10] Faced with the impossibility of acting otherwise, market professionals appear to attach little professional opprobrium to insider trading. Intermediaries may appear weary of the "vicious competition" in the market but yearn, to no avail, for a cleaner, better regulated, market.[11]

So why do investors trade in such a market? According to Huang, they accept the highly speculative and likely distorted nature of the market, and trade there for lack of alternative investment opportunities.[12] There is

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4 *Id.* at 317-20.

5 *Id.* at 313-15.

6 HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET (1966).

7 HUANG, *supra* note 1, at 114-15.

8 *Id.* at 38.

9 *Id.* at 38.

10 *Id.* at 41.

11 *Id.* at 41.

12 *Id.* at 44.

also an "if you can't beat 'em, join 'em" attitude among investors, making it "very common in China that people openly talk about insider trading and actively seek inside information."[13] Everybody wants to *be* an insider, and a vicious circle of insider trading practices results.

Although there are numerous other factors that play into the insider trading phenomenon in China, one factor dominates the market: the dual role of government as regulator and shareholder. The China Securities Regulatory Commission (CSRC) faces a daunting array of obstacles in pursuing its regulatory mission, ranging from the high degree of social tolerance for insider trading to evidentiary obstacles and lack of resources.[14] However, as significant as these impediments may be, the overwhelming reality is that the CSRC is directly controlled by the government. In addition, listed companies in China are characterized by a highly concentrated ownership structure, with the state as the controlling shareholder. This noxious combination results in a pattern of regulation referred to as "regulatory art."[15] Regulatory standards vary with the state of the market, and according to Huang, "[W]hen the market is bullish, the CSRC is inclined to tighten the regulation; when the market is bearish, the CSRC is prepared to loosen the regulation."[16] Not only may interested government agencies benefit directly through the illegal market activity of others, but there is also evidence of active collusion, for example, in the falsification of business financial records.[17]

Perhaps not surprisingly, the government may be the biggest market manipulator of all, through the use of editorials in the official government newspaper, the *People's Daily* (Renmin Ribao). According to an example provided by Huang "in response to the overheated market in 1996, the *People's Daily* published an editorial which bitterly criticized the mania of trading shares . . . . As a result, the stock market slumped dramatically on three consecutive days. Likewise, after two years of bear market, the *People's Daily* published another editorial to stimulate the market in 1999."[18]

The second valuable contribution of this text to the literature is its comparative perspective. True, there is perhaps an overly detailed discussion of the complexities of U.S. law in this area.[19] But, at the least, the discussion leaves no doubt as to the troubled and difficult analysis which has been brought to bear on the regulation of insider trading in the U.S. The discussion of the U.S. approach to insider trading, though, is highly pertinent to the extent that the Chinese legislation, for better or worse, has been

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13 HUANG, *supra* note 1, at 44.

14 *Id.* at 84.

15 *Id.* at 87.

16 *Id.* at 86-87.

17 *Id.* at 86.

18 *Id.* at 61.

19 *Id.* at 25-26.

strongly influenced by the concepts and regulation emanating from the U.S.[20]

The text examines the regulation of insider trading in several other jurisdictions as well, including the United Kingdom, the European Union, Singapore, and Australia. In particular, Huang finds favor with the modern Australian "information connection" approach to insider trading, due to its simplicity and inclusiveness. According to Huang, "it is the use of inside information, not a person's connection with the company whose securities are traded or some other entity, which can harm the market . . . . Furthermore this approach is more conceptually straightforward and thus assists market participants to understand insider trading law."[21]

The discussion of non-U.S. regulatory approaches to insider trading could have been even more extensive, given the author's trenchant observations on the difficulties of importing, holus bolus, U.S. regulatory models into China.[22] After all, China is a "civil law" country where concepts based on the common law notion of "fiduciary duties" will find little traction. Additionally, the U.S. approach to insider trading is complex and fraught with conceptual difficulties and longstanding judicial controversies.[23] "The theory underlying China's insider trading regulation is unclear," as Huang observes, and in "hastily importing experience from overseas, notably the U.S., without critical and careful thinking, China seems to have stuffed its insider trading regulation with theories that are in fact mutually contradictory. This has resulted in confusion in applying and interpreting provisions, and adversely affected the efficacy of the insider trading regime in China. In order to regulate insider trading credibly, China needs a clear underlying theory."[24] Fortunately for Chinese regulators, *Insider Trading Law in China* provides the welcome conceptual clarity and analysis to light the way forward.

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20 HUANG, *supra* note 1, at 25-26.

21 *Id.* at 130-83.

22 *Id.* at 198.

23 *Id.* at 169.

24 *Id.* at 183.