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30 September 2008

Secretary
Securities and Exchange Commission
100 F. Street NE
Washington, DC 20549-1090

Dear Secretary:

I submit this letter and the attached materials as my comment on the SEC's Commission Guidance Regarding the Duties and Responsibilities of Investment Company Boards of Directors with Respect to Investment Adviser Portfolio Trading Practices, File No. S7-22-08.

I strongly support the SEC's goal of providing clarity to fund boards in monitoring their adviser's use of soft dollars, especially given the alarming prospect of criminal liability under ICA 17(e)(1) for advisers whose conduct falls outside the soft dollar safe harbor. One of the most important functions of law is to provide market participants with accurate expectations about how to plan their business affairs.

For law and regulation to be clear, however, it is essential that they be based on an economically sound understanding of the business practices at issue. By failing to recognize the economic function of soft dollars, neither the SEC's 2006 Guidance nor its proposed Guidance to Fund Boards provide the clarity market participants deserve. I have researched and published on the subject of soft dollar brokerage for over 15 years. During that time I have written several scholarly and popular press articles, made numerous presentations at prestigious universities and scholarly and industry conferences, and submitted at least two comments to the SEC (see my attached CV). Most important for the purposes of this comment my following scholarly articles, which are attached and incorporated herein by reference:

• Property Rights to Investment Research: The Agency Costs of Soft Dollar Brokerage, 11 YALE JOURNAL ON REGULATION 75 (1994)

- Can Third-party Payments Benefit the Principal? The Case of Soft Dollar Brokerage (with Stephen M. Horan), 28 INTERNATIONAL REVIEW OF LAW & ECONOMICS 56 (2008)
- The SEC's 2006 Soft Dollar Guidance: Law and Economics (forthcoming 2009, CARDOZO LAW REVIEW)

These articles show that soft dollars ameliorate, rather than aggravate, conflicts of interest in mutual fund management. They rely on the economics of industrial organization – specifically the economics of principal-agent or "vertical" relationships –to provide a simple and yet intuitively appealing explanation for what is an admittedly puzzling, and therefore easily vilified, business practice. The intellectual foundation for my work comes from the following two widely cited articles accepted as seminal in the field:

- Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305 (1976)
- Benjamin Klein and Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 JOURNAL OF POLITICAL ECONOMY 615 (1981)

Based on these articles, my research on the economics of soft dollar brokerage yields the following conclusions:

- In the absence of the subsidy implicit in soft dollars, active fund managers (i.e., advisers) would have too little incentive to research profitable trading opportunities what Jensen & Meckling identify as the "shirking problem." This is because the advisory contract provides them with only a fraction of the benefits they produce for the fund. The limiting case is so-called "closet indexing," in which the manager collects a high fee for active management but saves time, effort, and expense by secretly indexing the entire portfolio.
- The shirking problem is a reflection of one among many conflicts of interest inherent in all principal-agent relationships.
- To ameliorate this conflict, it is unsurprising that mutual funds and other managed portfolios subsidize inputs that complement the manager's labor effort in addition to providing them with the customary asset-based management fee. This is arrangement is aimed at aligning the manager's interests with those of his principal, the fund.
- Soft dollars subsidize both research and brokerage and tie the manager's use of research to his use of brokerage. A rational manager's response will be to increase his effort in identifying and executing profitable trades.
- As agents of the fund, institutional brokers may also be subject to the shirking problem, reflecting their incentive to shave costs by providing lower-than-expected execution quality. Low-quality execution can substantially reduce fund returns owing to excessive price impact.

- Institutional brokerage is what economists characterize as an "experience good," meaning that in noisy securities markets the manager cannot always identify low-quality execution before it adversely affects fund returns. This characterization is entirely consistent with the SEC's 2003 *Concept Release*.
- Klein & Leffler develop a model to show how the sellers of experience goods can increase their profits by bonding their implicit promise to provide the high-quality good in exchange for a future price premium on sales. Opportunistic cheating by the seller is thereby averted. This allows the buyer to reduce his up-front expenditures attempting to assess quality, essentially establishing a relationship of trust with the seller.
- As in the Klein & Leffler model, institutional brokers can, and often do, provide managers with the soft dollar research subsidy up front in exchange for the manager's promise to provide the broker with *future* portfolio trades at premium commissions.
- As the SEC noted in its 1986 Release, the manager is under no legal obligation to make the promised trades owing to his fiduciary duty of best execution. Because he is free to terminate the broker with the balance of the soft dollar account "unpaid" if he detects low quality, the broker's up-front research subsidy serves as a Klein-Leffler performance bond. Best execution is thereby assured.
- Whether, and to what extent, the broker provides the manager with an up-front soft dollar bond depends on the strength (longevity) of their trading relationship and other circumstances of the trading environment such as the general volatility of market prices, the size of the trade, the manager's notoriety as an informed trader, etc.
- The shorter this relationship, the more volatile are security prices, the larger the trade, and the more notorious the manager the higher the optimal soft dollar performance bond. To obscure their identity, many fund managers must use new brokers from time to time with whom they have no past trading relationship.
- Most important, under plausible circumstances any reduction in the commission will lead to quality cheating by the broker. Competition between brokers therefore cannot take the form of lower commissions, but must take an alternative form such as a larger research subsidy.
- All else being equal, to assure best execution the manager should increase the premium he is willing to pay for brokerage as long as doing so reduces his total cost of transacting.
- As suggested above, in the absence of a research subsidy the manager may have too little incentive to devote time, effort, and expense to identifying profitable trades. Compared to requiring the manager to pay for all research out of his own pocket, a dollar spent subsidizing the manager's use of "research and brokerage services" therefore yields the portfolio more than a dollar in benefits by tilting the manager in favor of putting more effort into identifying profitable trades.
- To fulfill his fiduciary duty of care and loyalty to the fund, the manager should continue using soft dollar research up to the point where doing so yields even a small *expected* net benefit to the fund. I refer to this as the "net benefit" test.

• The manager should engage in cash recapture only if the benefit to the fund from a dollar's worth of subsidized research falls below one dollar in cash returned to the fund.

In addition to these economic conclusions, I provide the following policy conclusions, which follow from my economic analysis and related legal research:

- The scope of the safe harbor was intended by Congress to be construed in the broadest possible terms. In assessing whether a given item or service falls within or without the safe harbor, and in providing guidance to fund boards, the SEC should use the net benefit test.
- The SEC's position that a manager's receipt of benefits falling outside the SEC's interpretation of the safe harbor necessarily violates ICA 17(e)(1) is legally and economically mistaken. The manager's receipt of a beneficial item that falls outside the SEC's interpretation of the safe harbor but which clearly provides a net benefit to the fund cannot plausibly be construed as "compensation" under ICA 17(e).
- Similarly, the SEC's position that disclosure by a manager of his receipt of benefits falling outside Section 28(e) would not cure a 17(e)(1) violation is mistaken. The fund's board is, or should be, free to contract with the manager about how various expenses will be allocated between the fund and the manager, as regularly occurs with respect to custodial fees, 12b-1 fees, and various administrative fees and expenses.
- These conclusions are consistent with established trust law, which provides that "[t]he trustee is entitled to indemnity out of the trust estate for expenses properly incurred by him in the administration of the trust," either by way of "exoneration" or "reimbursement" (see *Section Restatement (Second) of Trusts* (1959), Section 244). Neither exoneration nor reimbursement constitutes compensation. Agency law closely tracks trust law in this respect.
- For many managers their brokerage allocation practices lie at the core of their ability to produce superior fund returns. This is proprietary information. Requiring that it be publicly disseminated could very easily injure fund investors in the long run. For the same reason, the SEC should seriously consider ways to provide manager's with safeguards when disclosing their brokerage allocation practices to the fund's board.
- A fund's board should have the leeway to determine which aspects of the manager's activities and performance are worthy of close scrutiny under the circumstances at hand. Were the fund industry to experience a systemic threat similar to our current credit crisis but unrelated to brokerage, for example, it would be imprudent for the board of directors to spend its time heavily scrutinizing the manager's brokerage allocation practices.

There is an extensive literature on the economics of vertical relationships developed largely in the context of antitrust law, where it has been highly influential both among federal regulators and in federal courts. This literature can be extremely useful to the SEC in assessing

conflicts of interest in mutual fund management and providing sound investor protection regulation. I hope the SEC will consider my contributions to the field as they relate to soft dollar brokerage in finalizing its *Guidance to Fund Directors*. I would be happy to discuss any of the points I raise in this comment should the SEC so desire.

Respectfully,

D. Bruce Johnsen, J.D., Ph.D.

D. Brune Johnson

Professor of Law

cc: The Honorable Christopher Cox
The Honorable Kathleen L. Casey
The Honorable Elisse B. Walter
The Honorable Luis A. Aguilar
The Honorable Troy A. Paredes







Can third-party payments benefit the principal? The case of soft dollar brokerage

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Abstract

In a typical soft dollar arrangement, a security broker provides an institutional portfolio manager with credits to buy research from independent vendors in consideration for the manager's promise to send the broker premium commission business when trading his portfolio securities. Because portfolio investors implicitly pay for brokerage, critics argue soft dollars reflect a breach of loyalty in which the manager unjustly enriches himself by shifting to investors the research bill he should pay out of his own pocket. We hypothesize, to the contrary, that by paying the manager's research bill up-front the broker posts a quality-assuring performance bond that efficiently subsidizes the manager's investment research. Our database of private money managers shows premium commissions are positively related to risk-adjusted performance, suggesting soft dollars benefit investors. Premium commissions are also positively related to management fees, suggesting soft dollars are not a pure wealth transfer from investors that is competed away in the managerial labor market.

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1. Introduction

In 1979 Ronald H. Coase advanced the remarkable hypothesis that radio payola (Coase, 1979) – payments by aspiring recording artists to induce radio disc jockeys to play their musical compositions on air – is both an informative signal of musical quality and an efficient form of compensation that gives disk jockeys added incentive to identify emerging musical talent. Since that time, few scholars have focused on this or other types of payments made by third parties to influence agents' decisions. The dearth of scholarly attention to third-party payments is surprising in light of the large body of general scholarship on the principal–agent problem that carefully analyzes the incentives various compensation

schemes provide.² What is more, third-party payments arise in a variety of principal-agent settings and invariably provoke impassioned hostility from those who see them as illicit bribes, kickbacks, or payola intended to subvert agents' loyalty.³ This paper examines the incentive effects of one

² See, for example, Cheung (1969), Alchian and Demsetz (1972), Ross (1973), Jensen and Meckling (1976), Shavell (1979), Grossman and Hart (1983), and Barzel (1987).

³ Candidates include referral fees paid by hospitals and outpatient caregivers to physicians for recommending their patients, rebates paid by pharmaceutical companies to physicians and pharmacists for recommending the firm's medicines, commissions once paid by airlines to travel agents for booking airline tickets, payments made to grocers by product manufacturers for prominent shelf space, discounts paid by mortgage lenders to mortgage brokers to induce them to recommend the lender's product, "contingent" commissions in insurance brokerage, so-called "steering fees" paid by auto body repair shops to insurers to recommend their repair services to insured motorists, so-called "laddering" arrangements used by investment bankers to give preference in future IPO allocations to institutional investors who cooperate in an initial IPO, Michael Milken-style limited partnership participations given to investment managers who cause their portfolio to subscribe to a particular securities issue, attorney referral fees, and let us not forget frequent flyer awards for employer-sponsored travel.

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¹ But see Pauly (1979), Johnsen (1994), Jackson and Berry (2002), Garicano and Santos (2003), and Klein and Wright (2004).

form of third-party payment – soft dollar brokerage – in the context of institutional portfolio management.

Seen from one standpoint, third-party payments may function as a simple two-part tariff that reduces the transaction costs of metering various dimensions of agent compensation to encourage optimal performance. In this sense, they reflect the moment in economic time when a separate price emerges for something that was previously bundled together with other goods in an undivided whole. Seen from another standpoint, third-party payments present legitimate concern over conflicts of interest because they may influence the agent's fiduciary decision making and sometimes arise outside the principal's purview. Yet conflicts of interest are unavoidable in a specialized intermediary economy and only rarely result in actual disloyalty by agents.⁴ Informed principals routinely consent to such conflicts because the benefits from properly aligning agent incentives outweigh the potential losses. Any suggestion that all conflicts can be eliminated is therefore patently foolish. Though soft dollar brokerage raises legitimate concern over conflicts of interest, our analysis suggests that it provides at least a partial solution to the agency problem in institutional portfolio management, benefiting investors by better aligning manager and broker incentives to maximize portfolio wealth.

Soft dollar brokerage – or simply *soft dollars* – provides a fertile setting in which to study third-party payments for several reasons. First, soft dollars are commonplace in financial markets throughout the developed world whenever investors delegate portfolio management to agents. In the US, alone, they accounted for as much as half the US\$ 12.7 billion in brokerage commissions institutional portfolios paid in 2002.⁵ Indeed, soft dollars support an entire sub-industry of brokers that have little or no in-house research capacity and specialize in executing institutional trades, providing their manager-clients with research exclusively from independent third-party vendors. Second, in part because the principal often consists of rationally ignorant dispersed shareholders who face a collective action problem, as in the mutual fund industry, meaningful disclosure can be problematic. Third, even though managers are protected by a limited statutory safe harbor from fiduciary suits when they accept brokerprovided research, soft dollars are the subject of ongoing

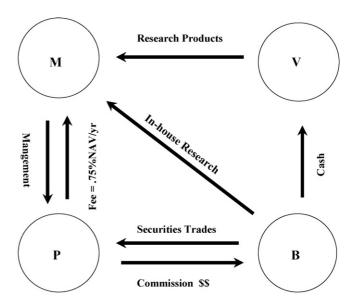


Fig. 1. Relations between the parties.

criticism and recent calls for potentially crippling regulation both in the US and abroad. Finally, although accurate data on the direct use of soft dollars are unavailable, our database of 1038 privately managed portfolios allows us to estimate the direction of their likely effect on portfolio wealth.

Soft dollars are best described as a research subsidy provided by an institutional securities broker to an institutional portfolio manager (the agent), who has a fiduciary duty to act for the benefit of portfolio investors (the principal). Fig. 1 illustrates relations between the parties in an actively managed institutional portfolio.⁶ P represents a portfolio of securities, whose beneficial owners consist of one or more investors. The portfolio enters into a contract in which it promises to pay the manager, M, a fee consisting of a periodic share of the portfolio's net asset value, say 75 basis points per year. In exchange, the manager agrees to use his best efforts to research and identify trades in the form of buy or sell orders he expects to increase net asset value.⁸ Once having identified a profitable trade, the manager normally hires a broker, B, to search for opportunities to execute the trade on favorable terms. The manager can route the trade

⁴ Under agency law, a conflict of interest exists when the agent's interests are adverse to the principal, but a breach of loyalty occurs only if the agent takes self-serving action adverse to the principal. See the American Law Institute, Restatement of the Law, Second, Agency (1958), Section 23, 394.

⁵ John Hechinger, MFS Ends 'Soft Dollar' Payments on Concerns over Ethics, Wall Street Journal, March 16, 2004, at C1. Hechinger cites Greenwich Associates, Inc., for this figure, while other sources relying on Greenwich report that soft dollars amounted to US\$ 1.24 billion in 2003 and accounted for 11% of total institutional commission payments. The discrepancy no doubt results from imprecision over how to define soft dollars. The former figure probably includes the value of all research and other services bundled into institutional commission payments, while the latter probably refers exclusively to research supplied by independent research vendors. See discussion, infra at p. 3.

⁶ Examples of institutional portfolios include mutual funds, pension funds, insurance funds, trust funds, and various privately managed portfolios. In a pension fund there is only one investor per portfolio, the plan sponsor. Plan sponsors typically contract with multiple money managers, who are given responsibility for separate accounts. Many money managers handle multiple separate accounts. With mutual funds, literally thousands of individual investors might own shares in the portfolio.

Most mutual fund managers are employees of an advisory firm, which often manage multiple funds in a "family" or "complex." A pension manager may be a sole proprietor or an employee of an advisory firm. In part because our database consists of privately managed portfolios, we treat the manager and adviser as synonymous.

⁸ Institutional portfolio management can be divided into active and passive styles. Passive managers are expected to track a market index in exchange for a relatively modest fee and are not expected to identify mispriced securities.

through a discount broker, who charges an "execution-only" commission rate of roughly two cents per share, but in the large majority of cases he will route it through an institutional broker at a premium commission rate closer to six cents per share. ¹⁰ In a typical soft dollar arrangement, the institutional broker provides the manager with credits *up-front* to pay a specific dollar amount of his research bill with independent vendors, V. In exchange, the manager promises to send the broker future trades at premium commission rates. By way of example, the broker might provide the manager with US\$ 180,000 in research credits if the manager agrees to send the broker enough trades (in this case six million shares) over the coming quarter at six cents per share to generate US\$ 360,000 in brokerage commissions, clearly more than necessary to cover the broker's execution costs. In this sense the manager is said to "pay up" for research at the broker's expense.

Once having entered into this arrangement, the manager orders any of a large number of research products – fundamental analyses, hardware, software, subscriptions, databases, etc. 11 – from independent vendors, who in turn receive payment from the broker. 12 If all goes as planned, the manager places the promised trades with the broker over the coming quarter at the agreed premium commission rate. If not, the manager is free to terminate the broker at any time with no legal obligation to make the promised trades. 13

Outsiders to the investment management industry are often surprised to hear that institutional brokers routinely provide portfolio managers with up-front research as a partial quid pro quo for their promise of premium commission payments on future securities trades. Because brokerage commissions are included in the price basis of portfolio securities and are therefore implicitly paid by investors, ¹⁴ critics claim soft dollars constitute a breach of loyalty in which

the manager unjustly enriches himself by secretly shifting his research bill to investors. In the words of then Senator Fitzgerald (R-Illinois), a prominent critic of soft dollar brokerage, "a mutual fund will cut a deal with a broker that will allow the brokerage to charge higher-than-market commissions on trades – soft-dollar commissions – in return for the brokerage firm buying, for example, computer terminals or research for the fund company. These costs are passed on to the fund company's customers without ever showing up in the expense ratio. It is wrong." What is more, the prospect of unjust enrichment is said to malign managers' incentives, leading them to engage in too much trading, to use too much research, and to select brokers to maximize research credits rather than execution quality.

It bears emphasizing that none of these criticisms identify a conflict of interest resulting specifically from the manager's receipt of independent research through soft dollar arrangements. Instead, they identify a conflict inherent in bundling the costs of research and execution together into premium brokerage commissions. But virtually all institutional brokers do that. 16 Soft dollar brokerage constitutes only one form of bundling. Long before the advent of soft dollars, established full-service and research brokers routinely provided investment managers with proprietary in-house research and other brokerage services bundled together with execution as part of an informal, long-term relationship. Indeed, this practice predominates to this day, as illustrated by the diagonal arrow in Fig. 1. The main difference between these two forms of institutional brokerage is that proprietary research is generated within the brokerage firm and is accounted for only informally during the long course of a trading relationship, while independent research is transacted in the market for a price and provided in arm's-length transactions by specialized research vendors. That soft dollars foster specialization by separate, vertically disintegrated firms and rely on formal accounting to meter research is hardly a reason to ban them or subject them to onerous regulation. Accordingly, the central policy question we address is whether the widespread practice of bundling the cost of research into premium commissions benefits or harms portfolio investors compared to a world in which managers are required to pay for all research out of their own pockets.

We attempt to resolve this question by examining the agency problems inherent in institutional portfolio manage-

⁹ The manager might also trade directly through a dealer acting as a principal for its own account or through any of a growing number of proprietary trading networks.

¹⁰ Institutional brokerage commissions have fallen continuously and now average as low as 4.5 cents per share. We use six cents per share for arithmetic convenience and because this is the median brokerage commission in our database as of 1997.

¹¹ One empirical study lists the following categories of independent research purchased with soft dollars in descending order of the frequency of use: fundamental research, data on expected earnings, macroeconomic services, computer software, technical research, portfolio consulting services, computer hardware, educational services, and office support activities (Blume, 1993). One criticism of soft dollars is that managers sometimes use them to pay for inputs such as telephone lines, office equipment, and even office leases that are in no way specific to the research function. National Association of Securities Dealers, Report of the Mutual Fund Task Force on Soft Dollars and Portfolio Transaction Costs (2004), http://www.nasd.com/web/groups/rules_regs/documents/rules_regs/nasdw_012356.pdf.

¹² This flow of third-party research is shown by the horizontal arrow from V to M in Fig. 1, and the broker's payments to vendors are shown by the vertical arrow from B to V.

¹³ See discussion of best execution infra, at p. 5.

¹⁴ Brokerage commissions are treated as a capital item in fund accounting, being added into the price basis of a security when it is purchased and netted out when it is sold. Reported returns are therefore net of commissions.

¹⁵ Jon Birger, Mr. Fitzgerald Leaves Washington, Money, December 2004, at 80A. The costs of soft dollar research show up in the portfolio's net returns, which will necessarily be lower than otherwise, all else being equal.

¹⁶ The exceptions consist of discount brokers and proprietary trading networks, which normally charge an "execution-only" brokerage commission and provide little in the way of bundled services. Although proprietary networks are legally classified as brokers subject to registration under the Securities Exchange Act (1934), they operate through protocols that leave virtually all trading discretion to the manager. Instinet, LLC, is one example of a proprietary trading network. Institutional portfolio managers are said to trade only sporadically, if at all, through discount brokers, who tend to focus on retail clients.

ment. We identify two empirically testable hypotheses to explain soft dollar brokerage and, by implication, all bundling at premium commission rates. According to the unjust enrichment hypothesis, bundling reflects a conflict of interest that tempts managers to capture wealth from portfolio investors. But, if so, labor market competition should bid down their fees. All else being equal, bundling and management fees should be negatively related. If bundled-in research is an inefficient form of compensation compared to cash, portfolio managers who pay more in premium commissions should exhibit relatively poor risk-adjusted performance. That is, the lower management fee will not compensate for the lost returns from paying premium commissions.

According to the incentive alignment hypothesis, the broker's up-front provision of research constitutes a standard Klein-Leffler (1981) performance bond that benefits investors by assuring the quality of broker executions and efficiently subsidizing the manager's use of research to identify profitable trades. This suggests a positive relationship between premium commissions and portfolio performance, a relationship that clearly emerges from our empirical analysis. Based on observation, we can say with confidence that brokers provision of up-front, third-party research serves to bond the quality of broker executions. In some cases this is true of proprietary full-service brokerage as well. 17 Under the incentive alignment hypothesis, the use of full-service brokerage to bond execution quality should strengthen the empirical relationship between premium commissions and portfolio performance, especially where executing trades is more difficult. The sign on our proxies for trade difficulty are consistent with the bonding story. It may be more accurate to say our analysis goes to the incentive effects of bundling, generally, and not to the provision of third-party research through soft dollars per se. But this would neglect the historical association between the term"soft dollars" and the conflicts of interest thought to surround institutional brokerage, to which our analysis makes a unique and counter-intuitive contribution, and at the same time fail to recognize that the term has increasingly been adopted as a synonym for all bundling.

Given that both forms of institutional brokerage efficiently subsidize manager research and can be used to assure execution quality, the equi-marginal principle suggests that each form should be positively associated with premium commission payments absent evidence to the contrary. Note that a manager who has done little or no research has little reason to

pay up for careful trade execution, while a manager who pays up for bundled research – whether in-house or independent – should. That research and careful execution are complements in generating profitable portfolio trades helps explain why both forms of bundling should be positively associated with premium commission payments.

The remainder of this paper is organized as follows. In Section 2, we provide a brief regulatory history of soft dollar brokerage. In Section 3 we describe the agency problems in delegated portfolio management and further develop the unjust enrichment and incentive alignment hypotheses. We derive testable implications from these hypotheses in Section 3. In Section 4 we describe our data, which reports premium commissions, money manager returns, and management fees from a pooled sample of 1038 privately managed portfolios. In Section 5 we present and discuss our empirical results. We find that premium commissions are positively related to riskadjusted portfolio returns and unrelated to management fees, evidence squarely inconsistent with the hypothesis that paying up of any kind unjustly enriches portfolio managers. This evidence strongly fails to reject the hypothesis that bundling of any kind aligns managers' incentives to act in the interest of portfolio investors by efficiently subsidizing research. It also fails to reject the hypothesis that soft dollars, and to some extent proprietary research, align brokers' incentives to provide high-quality execution. With this in mind, in what follows we treat the term soft dollars as synonymous with bundled brokerage unless the context warrants a more parsimonious treatment. In Section 6 we summarize and provide concluding remarks. Our empirical findings are limited to private portfolio management, whereas much of the controversy surrounding soft dollars has focused on public mutual funds. We nevertheless believe our findings call for more careful investigation before further regulation of soft dollars is warranted in either setting. More broadly, it counsels a thorough examination of third-party payments and other apparent conflicts of interest before they are summarily condemned in the public policy arena.

2. A brief regulatory history of soft dollar brokerage

The practice of formally bundling research and execution together into a single brokerage commission is probably as old as the securities industry itself. Bundling took on increasing importance toward the end of the era of fixed minimum brokerage commissions on the New York Stock Exchange (NYSE), as member–brokers found various non-price methods of competing for the increasing volume of lucrative institutional trades (Blume, 1993; Jarrell, 1984). During this time, NYSE commissions were maintained far in excess of what ultimately prevailed under freely negotiated rates. As part of the Securities Acts Amendments (1975) deregulating fixed commissions, Congress added Section 28(e) to the Securities Exchange Act (1934) for fear that under price competition any manager who paid more than the lowest available

¹⁷ Discussions with members of the industry indicate, for example, that start-up hedge fund managers invariably hire full-service brokers to serve as their "prime broker" to manage portfolio trading and a host of other services. Oftentimes the prime broker will bear the up-front expense of leasing and equipping an entire office for the manager in exchange for the promise of future premium commission business. This allows the manager to place a larger degree of trust in the prime broker than might ordinarily be the case in a new relationship. Needless to say, at some point their relationship may become sufficiently strong that this kind of bonding is no longer necessary, but the option is always there if circumstances require.

commission would automatically be subject to suit for breach of his fiduciary duty of "best execution." This provision, known as the "paying up" amendment, gave portfolio managers a limited safe harbor from fiduciary suits and other legal actions when they pay premium commissions for securities brokerage if they believe in good faith that the brokerage and research services they receive in exchange adequately compensates the portfolio. ¹⁹

Deregulation brought dramatic reductions in institutional brokerage commission rates, but these rates nevertheless remained well above the execution-only rate offered by discount brokers to reflect continued bundling of research and execution under the safe harbor. Deregulation also brought the rapid entry of soft dollar brokers, who specialized in executing institutional trades while providing managers with research from independent vendors. These "execution-only" brokers captured a substantial share of institutional commission business, prompting established full-service and research brokers to lobby to suppress soft dollars (Johnsen, 1994). In 1976 the US Securities and Exchange Commission (SEC) responded by ruling that Section 28(e) provides no protection to managers who pay up for items that are "readily and customarily available ... to the general public on a commercial basis."²⁰ At least nominally, this ruling confined the scope of the safe harbor to proprietary in-house research bundled into the commission, but over time it proved intractable.

To settle uncertainty as to whether the broker must produce the research in-house to qualify for safe harbor protection, in 1980 the SEC clarified the meaning of the phrase "provides research and brokerage," ruling that the broker need only retain the "legal obligation to [the independent ven-

No person ... in the exercise of investment discretion with respect to an account shall be deemed to have ... breached a fiduciary duty ... solely by reason of having caused the account to pay a member of an exchange, broker, or dealer an amount of commission ... in excess of the amount of commission another member of an exchange ... would have charged ... if such person determined in good faith that [it] was reasonable in relation to the value of the brokerage and research services provided

15 US Code Section 78bb(e) (1988). For conduct outside Section 28(e), fund managers subject to the Investment Company Act (1940) would arguably face criminal liability for violating Section 17(e)'s prohibition on agents receiving compensation from outside sources. The Department of Labor, which administers ERISA (1974), defers to the SEC's interpretation of the safe harbor, but private portfolio managers to ERISA pension plans are subject to treble damages rather than criminal liability for fiduciary breach under standards that roughly follow the common law of agency.

dor] to pay for the research."21 In 1986 the SEC amended its "readily and customarily available" standard for the eligibility of safe harbor research. Finding that this standard "has caused substantial uncertainty and confusion on the part of money managers and others, particularly as the types of research products and their methods of delivery have proliferated and become more complex," the SEC relaxed the definition of research to include anything that "provides lawful and appropriate assistance to the money manager in the performance of his investment decisionmaking responsibilities."²² This ruling clearly allowed more generic research products supplied by independent vendors, and "provided" by soft dollar brokers, to be covered by the safe harbor. The SEC was careful to emphasize that "obvious overhead expenses such as office space, typewriters, furniture and clerical assistance would not constitute research" and would receive no protection under the safe harbor. In the same ruling, the SEC found that "a money manager that obligate[s himself] formally to generate a specified amount of commissions would be faced with a heavy burden of demonstrating that he was consistently obtaining best execution." To fulfill his fiduciary duty, the manager must be free at all times to terminate a broker for poor execution and therefore may not enter into a legally binding contract for brokerage services.

This ruling brought renewed expansion in soft dollar brokerage and third-party research, initially at the expense of established full-service and research brokers. These brokers eventually relented in their opposition to soft dollars, as they increasingly relied on soft dollar arrangements to provide their institutional clients with independent research in competition with soft dollar brokers. Today, virtually all institutional brokers do a thriving soft dollar business, although proprietary in-house research continues to dominate the industry. The safe harbor together with managers' and brokers' common law fiduciary duties and various securities and pension regulations establish the legal framework in which the provision of institutional portfolio management and brokerage now occur.

Over the years there has been fitful but at times virulent opposition to soft dollars and the safe harbor that protects them. This opposition increased following the mutual fund scandals of 2003 involving fund timing and late trading. The added scrutiny over conflicts of interest lead to repeated calls for various forms of soft dollar regulation, from a complete ban on all bundling, to repeal of the Section 28(e) safe harbor, to the simple though questionable expedient of more detailed disclosure.²³ Even before

¹⁸ According to the SEC, to fulfill his fiduciary duty of best execution a money manager must "execute securities transactions for clients in such a manner that the client's total cost or proceeds in each transaction is the most favorable under the circumstances." US Securities and Exchange Commission, Securities Brokerage and Research Services, Release No. 34-23170 (1986).

¹⁹ Section 28(e) reads, in relevant part:

²⁰ US Securities and Exchange Commission, Interpretations of Section 28(e): Use of Commission Payments by Fiduciaries, Exchange Act Release No. 12,251 (1976).

²¹ US Securities and Exchange Commission, In the Matter of National Association of Securities Dealers, Inc., Exchange Act Release No. 17,371 (1980)

²² US Securities and Exchange Commission, Securities Brokerage and Research Services, Release No. 34-23170 (1986).

²³ Aside from the obvious problem of overloading investors with information, recent research suggests that mandatory disclosure of conflicts of

the US mutual fund scandals broke, the Myners Report (2001) – commissioned by Her Majesty's Treasury to assess Britain's pension funds and other institutional investors recommended a ban on all bundling, stating that managers should be required to pay for all research out of their own accounts in exchange for a single "all-in-one" management fee, apparently leaving portfolio trades to be executed by discount brokers.²⁴ In the US, the Investment Company Institute - leading trade association for the mutual fund industry - urged the SEC in December 2003 to reinterpret Section 28(e) to protect only proprietary in-house research and to treat managers' receipt of any research products or other services falling outside this interpretation as securities fraud.²⁵ More recently, in its November 2004 Report of the Mutual Fund Task Force on Soft Dollars and Portfolio Transaction Costs, the National Association of Securities Dealers recommended that the SEC narrow its interpretation of the safe harbor to protect only those services that benefit the portfolio (as opposed to the manager), to require that fund board's receive more detailed reports concerning brokerage allocation and soft dollar services, to mandate enhanced prospectus disclosure of soft dollar practices, and to apply disclosure requirements to all forms of bundled brokerage.²⁶

Most recently, the SEC narrowed its interpretation of research services covered by the safe harbor to include "only advice, analyses, and reports that have substantive intellectual or informational content" and "provide lawful and appropriate assistance to the manager in the performance of his investment decision-making responsibilities."²⁷ Among other things, this interpretation seems to preclude the manager from receiving software designed to assess the quality of his brokers' executions. Such software has always been a prominent component of soft dollar research, and there is little doubt it can contribute materially to investment performance.²⁸ The prudence of these and other reforms

interest can actually harm the principal on net balance (see, for example, Cain, Loewenstein, & Moore, 2005).

depends critically on whether bundling benefits or harms portfolio investors.

3. Soft dollar brokerage: agency problem or solution?

3.1. The agency problem in institutional portfolio management

Because the gains from relying on specialized agents are substantial, institutional portfolio management suffers from any number of inherent conflicts of interest and other incentive problems that result from the difficulty principals have accurately measuring agent performance (see, for example, Mahoney, 2004). This may be especially troublesome where, as with institutional portfolio management, one agent – the manager - is charged with responsibility for transacting with other agents—the portfolio's executing brokers. Any of these agents might shirk rather than using their best efforts to enhance investor wealth or they might consume investors' assets in the form of perquisites (Jensen & Meckling, 1976).²⁹ Within the existing legal and regulatory framework, however, competition between alternative forms of organization guided by the parties' own self-interest can be relied on to minimize the residual wealth losses from agent disloyalty. The economics of agency clearly demonstrates that principals will devise mechanisms to monitor their agents, and agents in turn will seek to bond their performance in various ways. This is unsurprising because any departure from joint maximization provides the parties involved with the incentive to establish long-term relationships and to adopt business practices that not only increase the gains from trade but that make all parties better off as a result. The observation of persistent conflicts of interest demonstrates the effectiveness of economic organization at averting agent disloyalty rather than systematic market failure.³⁰ This is not to say agents never engage in disloyalty or that there is no way lawmakers or regulators can improve the contracting environment, but any attempt at improvement must specifically account for the transaction costs the parties

²⁴ In response to the *Myners Report*, Brealey and Neuberger reported that the elimination of soft dollars and other forms of bundling might sharpen managers' incentives in one area but would likely weaken their incentives in other areas so much that the proposed restriction on organizational choice is unwarranted (Brealey & Neuberger, 2001). Possibly in response to Brealey and Neuberger, British regulators backed away from a complete ban on bundling.

²⁵ Letter to the Honorable Chairman H. William, SEC Chairman, from ICI President Mathew P. Fink, dated December 16, 2003. http://www.ici.org/statements/cmltr/03_sec_soft_com.html.

National Association of Securities Dealers, Report of the Mutual Fund Task Force on Soft Dollars and Portfolio Transaction Costs (2004), http://www.nasd.com/web/groups/rules_regs/documents/rules_regs/nasdw_012356.pdf.

²⁷ US Securities & Exchange Commission, SEA Release No. 34-54165 (2006).

²⁸ Identifying mispriced securities is just the first step the manager must take to generate superior portfolio returns. A large body of evidence suggests that strategic brokerage allocation that reduces transaction costs contributes significantly to portfolio returns (see, e.g. Chiyachantana, Jain, Jiang, &

Wood, 2004; Keim & Madhavan, 1995, 1997; Korajczyk & Sadka, 2004; Wermers, 2000).

²⁹ Under the law of agency, shirking is regarded as a breach of care ordinarily protected by the business judgment rule rather than as a breach of loyalty resulting from a bona fide conflict of interest, but the ultimate effect on the parties' wealth is similar. A breach of loyalty is said to occur when an agent unfairly engages in self-dealing at the principal's expense, as in the case of perquisite consumption. In an economic sense, an agent who shirks consumes leisure at the principal's expense. Delaware courts appear increasingly willing to entertain shareholder suits for director shirking under the umbrella of breach of good faith. See, e.g. *In re the Walt Disney Co. Derivative Litig.*, 907 A.2d 693 (2005).

³⁰ The large number of investors who place their money in publicly held mutual funds no doubt feel substantially more comfortable with the many conflicts of interest fund managers face than with the conflicts inherent in retail brokerage accounts, which are subject to a well-known churning problem, among other things.

face in balancing myriad, subtle, and occasionally countervailing conflicts. Novel and even puzzling business practices sometimes arise spontaneously to reduce transaction costs relative to the next best alternative, and care should therefore be taken before jumping to the conclusion that such practices aggravate conflicts rather than properly balance them.

To decipher the effect of alternative forms of economic organization on investor welfare it is important to identify the nature of the costs inherent in transacting over the provision of investment research. Active institutional portfolio management involves three categories of variable inputs that are complements in generating profitable trades: raw research inputs in the form of reports, databases, hardware, software, etc., that have no intrinsic value of their own, labor effort to transform these inputs into profitable trading opportunities, and the execution of securities trades. Managers can obtain profitable trading opportunities – proprietary research – from full-service and research brokers, in which case the broker is responsible for combining raw research inputs with labor effort to identify the trades.³¹ Alternatively, the manager can use soft dollars to obtain research inputs and then combine it with their own labor effort to identify profitable trading opportunities internally. Either way, the manager confronts an agency problem on the part of his executing brokers.³² When he uses full-service or research brokers to obtain profitable trading opportunities he can never be sure whether or to what extent a broker has already presented the opportunities to his other clients.³³ The favoritism problem is no doubt reduced by bundling trading opportunities together with executions into a single commission, but it cannot be entirely eliminated. Over time the manager must compete to be favored in the allocation process, by, for example, sending a sub-optimally large volume of trades to the broker. Being costly, this and other forms of competition to gain favor stand to dissipate some or all of the value of the underlying trades.

If the manager avoids the favoritism problem by generating profitable trading opportunities internally, he faces an

altogether different agency problem. In noisy security markets the quality of broker executions is impossible for the manager to know ex ante and difficult to determine even ex post except over an extended course of trading. The broker may shirk by doing a careless job of searching,³⁴ in the process leaking information to market interlopers who wait in the shadows to free ride on others' trading decisions. In the limit, the broker may even engage in perquisite consumption by trading for his own account ahead of the manager-so-called "frontrunning." The end result is "price impact," an adverse change in the bid or ask price of the security resulting specifically from the manager's decision to trade. Whereas the brokerage commission is an explicit and easily quantified expense, price impact is implicit and difficult to quantify in a noisy trading environment. The evidence is overwhelming that commissions and price impact are both economically significant components of what are widely regarded as the transaction costs of trading securities,³⁵ that they are inversely related, and that managers behave strategically to reduce their combined drag on portfolio returns (Chivachantana, Jain, Jiang, & Wood, 2004); Keim & Madhavan, 1995, 1997; Korajczyk & Sadka, 2004; Wermers, 2000). Trades by managers who are reputed to have superior skill in identifying mispriced securities will result in greater price impact, all else being equal, as will relatively large trades that signal the manager's haste in attempting to execute the trade before his private information leaks out.

3.2. The unjust enrichment hypothesis

To the extent managers pay premium commissions to obtain bundled research, whether from independent research vendors or from a broker's in-house research department, the portfolio implicitly bears the associated research costs. The unjust enrichment hypothesis starts with the normative claim, based in agency law, that managers *should* bear all of these costs out of their own pocket. ³⁶ The hidden assumption is that the fee provides managers with full compensation for

³¹ A recurring criticism of active management is that, in an efficient market, active managers will be unable to identify profitable trading opportunities and will therefore under-perform the market after adjusting for fees and transaction costs. But see Wermers (2000), who finds that active managers' stock picks outperform the market before netting out transaction costs and that high-turnover funds beat the Vanguard Index 500 on a net return basis. For the purposes of this paper, we take the position that in an efficient market securities are occasionally mispriced but that after adjusting for risk managers can expect to earn only a normal return on their investment in identifying profitable trading opportunities. In this formulation, the efficient markets hypothesis is simply the zero profit condition from the model of perfect competition.
³² The manager also faces an agency problem in choosing between inter-

The manager also faces an agency problem in choosing between internally generated trading opportunities and those he obtains externally from full-service or research brokers. To generate trading opportunities internally the manager must use his own labor effort, but with externally generated opportunities he relies on the broker's labor effort. This could distort the manager's decisions in favor full-service and research brokers, allowing him to shirk in his internal operations.

³³ The popular financial publication known as "First Call" highlights the favoritism problem.

³⁴ The broker, being an agent of the portfolio, also has a fiduciary duty of best execution. For economic analyses of this duty (Garbade & Silbur, 1982; Macey & O'Hara, 1997).

Another component of transaction costs is the opportunity cost of delayed execution designed to avoid price impact by stretching trades out over time. US Securities and Exchange Commission, Concept Release: Request for Comments on Measures to Improve Disclosure of Mutual Fund Transaction Costs, Release Nos. 33-8349; 34-48952; IC-26313 (2003). For the seminal work on the transaction costs of securities trading see Demsetz (1968).

³⁶ On one hand, the Restatement 2d of Agency, Section 404A, *Restitutional Liability of Agent to Principal* states: "Although the agent has committed no breach of duty to the principal, he is liable in an action for restitution for any enrichment which it is unjust for him to retain." On the other hand, Section 438, *Duty of Indemnity; the Principle* states: "... (2) In the absence of terms to the contrary in the agreement of employment, the principal has a duty to indemnify the agent where the agent (a) makes a payment authorized or made necessary in executing the principal's affairs ..." Whether soft dollar bundling enriches the manager in an "unjust" way or instead constitutes a "necessary" payment for "executing the principal's affairs" is ultimately an empirical question.

the costs of investment research and that shifting these costs to investors by paying premium commissions in exchange for research therefore constitutes unjust enrichment.³⁷ In competitive labor markets, of course, there can be no unjust enrichment in the long run; fees will adjust to reflect managers' receipt of bundled research. The underlying economic problem must be that paying managers in part with bundled research is an inefficient form of compensation that, by assumption, cannot be resolved by private contracting.³⁸ Managers and investors should prefer cash compensation because it eliminates inefficiencies that create a drag on portfolio performance.

Stated positively, the unjust enrichment hypothesis holds that bundling maligns managers' incentives and leads to inefficient resource allocation. Over the years, various commentators have mistakenly attributed the following inefficiencies exclusively to soft dollars, whereas they apply, arguably, to all forms of bundled brokerage. First, managers treat the research products available with soft dollars as free goods and overuse them, even to the point they become worthless to portfolio investors. Dennis Logue may have been the first scholar to make this claim. In discussing transaction costs as a pressing issue in pension fund management, he observed that "soft dollars make buying a lot of wild and useless analysis very nearly painless, because the true value of the service is masked. Given that the commissions are going to be generated anyway, the purchaser may treat what is purchased as essentially free, so that the product or service does not pass a cost-benefit standard on its own" (1991, p. 270). Second, managers have an incentive to churn the portfolio to generate additional brokerage commissions and the research credits that go with them. Writing shortly after the deregulation of fixed commissions in 1975, Robert Pozen stated that "money managers have an incentive to make an excessive number of trades for their clients' accounts under soft dollar payments ... to maximize the flow of securities research at their clients' expense" (Pozen, 1976, p. 956). In 1986, Burgunder and Hartmann described the churning problem in cost-benefit terms:

"In an environment without section 28(e), research would be purchased until the last hard dollar spent for the research equalled the value of that research to the clients. Any additional research would benefit the clients less than its cost, and thus would be an unreasonable expenditure. Thus, if one argues that managers are more willing to buy additional research with soft dollars than they would using hard dollars, then one admits that the purchases are unreasonable in relation to their cost" (Burgunder & Hartmann, 1986).

Finally, bundling might lead managers to be unduly loyal to brokers who have provided them with research even though the execution quality is poor. According to Logue:

The costs of extremely poor trade executions can far exceed the cash value of the research service. Thus in many instances it is likely true that paying cash for what is truly needed and systematically selecting the broker likely to produce the lowest total transaction cost may be far less costly than the soft-dollar arrangements that may push a . . . manager to deal with a brokerage firm which has very high market impact costs (Logue, 1991, p. 271).

Conrad, Johnson, and Wahal (2001) provide a recent empirical analysis of institutional brokerage purporting to measure the difference in transaction costs between soft dollar, full-service, and research brokerage. They find the total transaction costs for soft dollar brokers - including explicit brokerage fees, price impact, and the opportunity cost of delayed execution – are generally higher than for full-service or research brokers after adjusting for trade difficulty (order size) and other factors. Absent evidence regarding the relative benefits of the research managers receive on each of these forms of bundled brokerage, however, they are unable to conclude that soft dollar brokerage harms investors on net balance. More to the point, their database only crudely differentiates soft dollar brokerage from these other forms of brokerage because research and full-service brokers often do a substantial amount of their business pursuant to soft dollar arrangements and in any event routinely bundle inhouse research into a single premium brokerage commission. At best, the Conrad et al., results suggest that vertically disintegrating the production of private information from the brokerage house to the management firm (supported by third-party research products) leads to an increase in the transaction costs of securities trading. But no one has criticized soft dollars because they result in vertical disintegration, only because soft dollar bundling maligns managers' incentives. These results completely fail to address the effects of bundling, per se, on transaction costs or investor welfare.

3.3. The incentive alignment hypothesis

The incentive alignment hypothesis asserts that soft dollar bundling effectively reduces the agency problems that plague portfolio managers and their executing brokers. One critical incentive problem is the difficulty a manager has assessing quality in a noisy market; that is, securities execution is an "experience good" (Nelson, 1970). As Logue and others have

³⁷ This assumption has little basis in fact. For over 30 years Section 28(e)'s safe harbor has protected managers' receipt of research in exchange for payment of premium commissions, and prior to passage of Section 28(e) bundling was the norm under fixed commissions.

This assumption also has little basis in fact. Pension plan sponsors are perfectly capable of contracting with private money managers to prohibit bundling, yet very few appear to do so even though they are keenly aware of the practice and bear the residual from portfolio performance. And although mutual fund investors as a group are incapable of contracting with fund advisors owing to the collective action problem they face, advisory firms are free to compete by announcing and following a policy of refusing to pay premium brokerage commissions and paying for all research in cash out of their own pockets. Indeed, American Century Funds claims to trade almost exclusively through proprietary trading networks at roughly two cents per share, and both Fidelity Management and Research and Massachusetts Financial Services announced their intention to eschew bundling and pay execution-only rates in the heat of the recent mutual fund scandals.

shown, the problem of price impact owing to poor execution is a transaction cost that can significantly compromise portfolio performance. Yet the parties can be expected to organize their relationship to maximize the gains from trade net of transaction costs. The very reason a portfolio manager relies on an institutional broker – whose legal status is that of agent for an undisclosed principal – is to achieve anonymity and thereby to protect his private information about profitable trading opportunities from those who might free ride on his trades and reduce portfolio returns. For the same reason, managers establish relationships with various brokers and routinely attempt to do so with new brokers to further obscure their trading patterns. But increasing the number of brokers eventually weakens relations and raises the cost of effectively monitoring execution quality, increasing the likelihood any given broker will do a careless job of execution that goes undetected or is detected only after portfolio performance has been compromised.

If the cost of legally verifying execution quality was low, managers could seek money damages on behalf of the portfolio against brokers whose carelessness generated excessive price impact. But absent egregious conduct by a broker – frontrunning being a potentially verifiable example – it is impossible for a manager to seek legal recourse against a broker because it is too costly to verify mere carelessness to a court or arbitrator, especially given the large volume of trades done by most actively managed portfolios and the number of different brokers they use. The most the manager can do to protect the portfolio is threaten to terminate brokers whose execution quality proves to be sub-par over an extended series of trades. Under these circumstances, some form of self-enforcing arrangement is likely to maximize the net gains from trade.

Klein and Leffler (1981) develop a model to show how market participants can use self-enforcing arrangements to assure quality in the absence of legally enforceable contracts. For any experience good, according to this model, there is some price premium in excess of the cost to the seller of providing the high-quality good such that the wealth effect from being terminated and losing the premium stream exceeds the one-time gain he can earn from providing the less costly, low-quality good. This model accurately reflects the important circumstances surrounding soft dollar bundling. Although discount brokers and proprietary trading networks provide portfolio managers with opportunities to trade at two cents per share or less, to limit price impact (that is, to assure execution quality) most managers do the bulk of their trading through institutional brokers at a premium commission of roughly six cents per share. It is generally agreed in the industry that institutional brokers' marginal cost of providing high-quality executions is substantially less than six cents per share, say, three cents per share, thereby leaving the broker with a rent of three cents per share on every high-quality trade. Any broker who cheats by promising high-quality executions in consideration for a six-cent commission while carelessly executing low-quality trades that cost only two cents per share

will capture a rent of four cents per share but only until the manager discovers his neglect and terminates him. Depending on the discount rate and the time it takes managers to discover cheating (in part, a function of market volatility), a perpetual stream of rents of three cents per share can have a higher present value than a short-term stream of rents of four cents per share. The premium six cent per share commission therefore effectively assures high-quality executions.

Rather than minimizing brokerage commissions, the manager's fiduciary duty of best execution requires him to optimize over the combination of brokerage commissions and price impact. Institutional brokers cannot compete by cutting price and managers cannot assure best execution by patronizing a discount broker.³⁹ As Klein and Leffler point out, sellers of high-quality goods will compete to capture the quality-assuring rent, but they cannot do so by cutting price, as consumers would take this as a signal of quality cheating. Instead, sellers will compete by making a nonsalvageable capital investment equal to the expected present value of the quality-assuring rent stream. The capital investment will take the form that has the highest possible value to consumers subject to the constraint that its salvage value to the seller is zero in the event he is discovered cheating. In one sense it is the threat of losing the premium stream that assures high quality, but the nonsalvageable character of the up-front investment necessary to secure the consumer's patronage ensures that a seller who is caught cheating cannot avoid the consequences. In this sense, the capital investment can be seen as a self-enforcing, quality-assuring performance bond.

Here, again, the model accurately reflects the important circumstances surrounding of soft dollar bundling. Institutional brokers typically provide managers with soft dollars *up-front* in exchange for the manager's promise to order *future* trades at premium commissions. By SEC rule, the broker, and not the manager, is legally responsible for paying the manager's research bill. But the broker cannot legally enforce the manager's obligation to order the promised trades, nor can the broker compel the manager to return the value of the soft dollar research.⁴⁰ The up-front soft dollar rebate is clearly a nonsalvageable capital investment by the broker in anticipation of earning premium commissions and appears to establish a quality-assuring performance bond.

There is one way in which the form of this bond differs from what Klein and Leffler envision. In their model the non-

³⁹ See, for example, Frank J. Wsol, Sr. v. Fiduciary Management Associates, Inc. and East West Institutional Services, Inc., 266 F.3d 654 case (J. Posner finding that as a matter of economic reality an institutional portfolio manager seeking best execution did not have the option to insist on paying a discount brokerage commission).

⁴⁰ Although rare, industry reports demonstrate that managers have from time to time reneged on their soft dollar "commitments." Julie Rohrer, Soft Dollars: The Boom in Third-Party Research, Institutional Investor, April 1984, p. 78. In at least one case, this led to the broker's insolvency. Philip Maher, Why Wall Street Can't Bank on Soft Dollars, Investment Dealers' Digest, October 23, 1989, p. 18.

salvageable capital investment is a pure public good among the pool of potential consumers. McDonald's Golden Arches are the classic example. They convey valuable information to consumers, but one consumer's use of the information does not preclude others from using it. Nor can consumers sell the information to others. With soft dollar brokerage, the upfront rebate consisting of bundled-in research is exclusive to the manager. This does not diminish its value in bonding the broker's performance, but it raises concern over the reverse opportunism problem, which would manifest itself where a manager received research at the broker's expense and then arbitrarily declined to place all of the promised trades. After all, if execution quality is difficult for the manager to assess it is equally difficult for the broker to prove. Might this allow managers to enrich themselves at brokers' expense? Unlikely, at least in any systematic way.

With the choice of economic organization endogenous, the manager and broker face a reciprocal opportunism problem in transacting high-quality execution. On one end of the spectrum, if the agreed commission is three cents per share to cover high-quality trades, the broker can behave opportunistically by performing low-quality trades and capturing the one cent cost reduction for as long as it takes the manager to detect his breach. On the other end of the spectrum, if the premium commission is sufficiently high, say 40 cents per share, a manager might have an incentive to order a large quantity of research at the broker's expense and then renege on his promise to send the broker future commission business. Efficient economic organization requires a balancing of these two extremes. Weighing in this balance is one factor that makes manager opportunism fairly unlikely. Although research is exclusive to the manager, unlike cash or other liquid assets it has little value to the manager except to the extent he can use it to identify profitable portfolio trades,⁴¹ which will invariably require execution by a trusted broker. Even a manager planning to leave the industry has little to gain from ordering a bunch of research at brokers' expense and then reneging on his promise to send those brokers future commission business.

It is entirely plausible that soft dollars constitute a self-enforcing bond to assure high-quality brokerage execution. The second critical incentive problem is why the bond takes the form of research provided to the manager. Why does not the broker periodically pay the cash value of the research rebate into the portfolio?⁴² The answer follows directly from the Klein–Leffler requirement that the bond will take the form that provides the greatest possible value to the consumer. A dollar in research provides greater value to the portfolio than a dollar in cash because of the standard agency

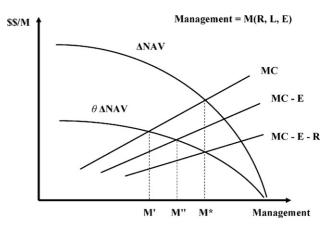


Fig. 2. The agency problem in delegated portfolio management.

problem in delegated portfolio management, illustrated in Fig. 2. There, MC shows the marginal cost of active management, consisting of the optimal combination of raw research, labor effort, and brokerage executions. Marginal cost increases as the manager increases management inputs, while the addition to portfolio wealth, shown by ΔNAV , declines. As a benchmark, if the manager owns the entire portfolio but bears all the costs of generating profitable trades he continues providing management up to the optimal level, M^* . Because he receives only a small share, θ , of Δ NAV he provides management inputs only up to M'.43 Contrary to statements by Logue and Burgunder and Hartmann, at M' the benefit to the portfolio of additional management inputs far exceeds the marginal cost of those inputs, and a dollar of research provided to the manager is therefore worth more than a dollar in cash to portfolio investors.⁴⁴

According to standard agency theory, the problem portfolio investors face is that managers will spend too little on research, devote too little labor effort to identifying profitable trading opportunities, execute too few portfolio trades, and

⁴¹ The manager can, of course, trade on this information for his own account rather than for the portfolio, but he will still need a trusted broker or brokers to execute his trades.

⁴² A second way the soft dollar performance bond differs from that envisioned by Klein and Leffler (1981) is that rather than reflecting a one-time investment by the broker, the bond is periodically renewed or rolled over.

⁴³ It is important to note that managers' share of the portfolio residual is substantially larger than their periodic management fee for at least two reasons. First any permanent increase in portfolio wealth provides them with an increase in compensation equal to the present value of the recurring increase in asset-based fees. Second, several studies indicate that flows into funds (which increase total fees) are positively related to past performance (Chevalier & Ellison, 1997; Ippolito, 1992). As a result, managers tend to receive future benefits from performing well, but in any case they are likely to under-invest in research if required to pay all research costs because they do not capture the full residual.

⁴⁴ The same reasoning may apply to other inputs that do not qualify as research under the safe harbor, including office rent, telephone charges, and other generic inputs, but also to non-research services provided by brokers such as the sale of fund shares. After years of allowing so-called "directed brokerage," in which managers compensate brokers for selling fund shares by directing portfolio commission business to them, the SEC recently prohibited the practice. US Securities and Exchange Commission, Prohibition on the Use of Brokerage Commissions To Finance Distribution, Release No. IC-26591 (2004). If the soft dollar research rebate functions as a performance bond, paying less than six cents per share in commissions is not an option for managers, and any restriction on the managers' ability to "recapture" the capitalized value of the commission premium for the portfolio may require him to leave money on the table.

engage in sub-optimal monitoring of execution quality. Just as principals routinely subsidize their agents' use of productive inputs in virtually all settings, it is therefore unsurprising that portfolio investors routinely subsidize managers' use of inputs. Because the portfolio pays for execution, the manager's cost of inputs falls, say, to MC-E, in which case he increases management to M'', closer to the optimal level. By also bundling the cost of research inputs into brokerage, soft dollars and other forms of bundled brokerage further reduce the manager's cost of inputs, say, to MC-E-R, and encourage him to increase management, ideally to M^* . With increased management inputs, including research, the manager is likely to identify more trading opportunities, and expected portfolio profits rise. 45 Managers earn no windfall; labor market competition bids down fees so they earn only a normal wage at the margin, although the universe of managers no doubt share in the infra-marginal gains from trade resulting from superior economic organization and improved resource allocation. The important point regarding incentive alignment is that bundling adjusts relative prices to encourage managers to do more research and more trading for the benefit of portfolio investors, and, at least with soft dollars, bundling specifically reduces the manager's cost of monitoring execution quality by raising the penalty the broker suffers from cheating. 46 The possibility remains, of course, that managers carry the practice too far, perhaps beyond M^* in Fig. 2, and that investor welfare can be improved by regulatory restrictions on bundling. Although soft dollars may help alleviate two different agency problems (the manager/broker agency problem and the manager/investor agency problem), they are unlikely to solve either entirely. With asymmetric information first-best is unlikely. The question is whether soft dollar brokerage promotes better behavior compared to a world in which managers are required to pay for all research out of their own pockets. This is ultimately an empirical issue, to which we now turn.

4. Testable implications

4.1. Shared predictions

Both the unjust enrichment hypothesis and the incentive alignment hypothesis predict that soft dollar bundling will lead managers to pay premium commissions and to increase portfolio trading (turnover). According to the incen-

tive alignment hypothesis, managers will increase turnover as a natural response to the implicit research subsidy, which provides them with both the incentive and the ability to identify profitable trading opportunities. According to the unjust enrichment hypothesis, managers will increase turnover to reduce their direct research costs and increase their net compensation at the portfolio's expense. Knowing the effect of bundling on commissions and portfolio turnover therefore fails to distinguish the two hypotheses.

Comparing the use of bundled brokerage between situations in which investors face high versus low costs in monitoring managers also fails to distinguish the two hypotheses. The unjust enrichment hypothesis predicts bundling will be greater in situations, say, where investors face a collective action problem because weak monitoring enables managers to unjustly enrich themselves. The incentive alignment hypothesis predicts bundling will be greater where investors face a collective action problem in monitoring managers because bundling encourages managers to do more research and to bond brokers' execution quality. One proxy for cross-sectional differences in monitoring costs is the concentration of portfolio ownership. As Table 1 shows, private money managers may handle anywhere from a single account to tens of thousands of accounts. Fewer accounts under management for a given asset base or more assets for a given number of accounts (i.e. higher ownership concentration) should be associated with a smaller collective action problem and better monitoring. Both hypotheses therefore predict that managers with highly concentrated account bases will engage in less paying up for bundled research, all else being equal.

4.2. Risk-adjusted returns and management fees

One way to distinguish between the incentive alignment hypothesis and the unjust enrichment hypothesis is to examine the effect of bundling on management fees. Under the unjust enrichment hypothesis, bundling constitutes a second-best form of manager compensation, and if the managerial labor market is competitive at least a portion of the associated wealth transfer should be reflected in a lower management fee. Alternatively, if bundling improves managers' and brokers' incentives when other mechanisms fail, management fees should be either unrelated or positively related to bundling under the plausible assumption that managers collectively share in the infra-marginal gains from efficient economic organization.

The most obvious way to distinguish the two hypotheses is to examine how bundling affects risk-adjusted returns. The incentive alignment hypothesis predicts that bundling leads to higher risk-adjusted returns as a result of bonded execution quality and the manager's improved choice of research, labor effort, and trading. The unjust enrichment hypothesis predicts bundling will result in lower risk-adjusted returns because the costs of the premium commissions from misappropriating investors' resources exceed the value to the portfolio of the

⁴⁵ See Paik and Sen (1995), whose results suggest that if research inputs, labor effort, and broker executions are complementary and normal inputs in portfolio management, subsidizing any single input will encourage managers to use more of all inputs.

⁴⁶ By raising the penalty from being caught cheating, the bonding function of soft dollars reduces the manager's monitoring costs all else being equal (see Becker, 1968). It is worth noting that in many cases managers use soft dollars to pay for consultants or software to monitor execution quality and costs (Johnsen, 1994). The data used by Conrad et al. (2001) come from just such an organization.

Table 1
Descriptive statistics for domestic equity money managers

	N	N Mean	Percentiles				Standard deviation	Shapiro-Wilk	
			Min	25%	Median	75%	Max		stat. $(Pr < W)$
Panel A: Portfolio	assets (in mi	llions)							
Tax-exempt	1038	997.4	0	36	202	714	41,676	3071	0.31 (0.00)
Taxable	1038	296.2	0	0	25	173	32,056	1279	0.20 (0.00)
Total	1038	193.2	0.2	77	300	1094	43,501	3555	0.34 (0.00)
ln(Total)	1038	5.60	-1.5	4.3	5.7	7.0	10.7	2.0	0.99 (0.00)
Panel B: Number o	of accounts m	nanaged							
Tax-exempt	1038	37.5	0	2	10	28	4,764	175	0.14 (0.00)
Taxable	1038	41.1	0	0	3	17	7,786	274	0.10(0.00)
Total	1038	78.6	1	4	15	51	12,550	446	0.11 (0.00)
ln(Total)	1038	2.72	0	1.4	2.7	4.0	9.44	1.71	0.97 (0.00)
Panel C: Trading c	haracteristics	3							
Commissions	1038	7.2	0	5	6	7	75	5.8	0.52 (0.00)
Turnover (%)	1038	65.7	0	33	51	85	1,074	56.6	0.66 (0.00)

Note: Descriptive statistics for a sample of 1038 domestic equity money manager portfolios as of first quarter 1997 compiled by Mobius Group, Inc. Portfolios must report at least 12 quarters of returns, strategy class profiles, commission rates, and turnover to be included. Portfolio assets are measured in millions. Minimum account size is the smallest sized account accepted by a given manager expressed in thousands. Commissions are measured in cents per share. Annual turnover is defined as the minimum of purchases or sales divided by average market value. Distributions are considered to be normal when the Shapiro–Wilk statistic using the method of Shapiro and Wilk (1965) is close to 1. A low number indicates a non-normal distribution. The number in parentheses, Pr < W, represents the probability of incorrectly rejecting the null hypothesis of normalcy. Low p-values, such as those reported in the table, indicate distributions that are not normal

research and execution and any reduction in the management fee.

5. The data

The data for this study come from the Mobius database. Now owned by CheckFree Investment Services, the Mobius Group has been in the business of selling returns data on money managers to the public since 1989. The database fairly represents both pension assets and institutional money management more generally. For example, Horan (1998) shows that the database represents 54% of all pension assets in the US and that the distribution of pension assets, and the proportion of indexed assets within the sample closely mirrors aggregate industry data. Since the database covers private rather than public institutional managers, it contains large index managers such as Wells Fargo-Nikko but not the popular retail Vanguard Index 500 Trust mutual fund.

Managers in the Mobius database may report returns for a series of portfolios or by management styles provided to clients. Consequently, the database includes both firm-level and portfolio-level data. Since returns, commission rates, turnover, and management fees are reported at the portfolio-level, our unit of study is the portfolio rather than the manager. Any number of investor accounts (i.e. clients) might be managed within each portfolio delimited by the specific management style. Table 1 shows descriptive statistics for all domestic equity portfolios in the Mobius database. We used data from the 1997 first quarter database. Panels A and B show the distribution of portfolio assets and the number of accounts managed within each of the 1038 portfolios that

are the focus of this study. To be included in the sample, a portfolio must report at least the most recent twelve continuous quarters of returns, strategy class profiles, commission rates, and turnover. The number of portfolios reporting data for assets under management and the number of accounts is 2983. Excluding those portfolios that do not report strategy class profiles, commission rates, or turnover reduces the sample to 2504 portfolios. Excluding those portfolios without at least 12 continuous quarters of returns data produces the final sample of 1038 portfolios. Descriptive statistics for the unfiltered sample are quite similar to the filtered sample.

The standard deviations are large, and the distributions are skewed. Not only is the median-sized portfolio below the mean, the portfolio in the 75th percentile is below the mean as well. In the statistical tests to follow, we transform portfolio assets and the number of accounts managed using a natural log operator so that the distributions are closer to normal as shown by the Shapiro–Wilk test statistic approaching one. Panel C displays the distribution of commission rates and annual turnover as of the first quarter of 1997, with turnover being defined in the standard way as the lesser of purchases or sales divided by beginning portfolio value. The median manager pays a six-cent commission and turns over about half of the portfolio each year. These descriptive statistics are stable over time, as they are similar to earlier databases (Horan, 1998).

Mobius does not charge managers to be in the database. Managers are included as long as they provide complete and accurate data through a quarterly questionnaire. There are at least three forms of selection bias in our data in addition to the usual survival bias present in public mutual fund data. First, because managers choose whether or not to report it is likely

superior performing managers report while inferior performing managers do not. Second, managers who were once in the database may elect to be withdrawn. This might occur if a manager has had a particularly bad quarter and does not wish to publicize results until a better quarter. Third, returns data vary according to the methodology used to calculate them (e.g. dollar-weighted versus time-weighted); managers no doubt have an incentive to use the most flattering calculations, thereby biasing reported returns upward.

We measure risk-adjusted excess returns in two different ways. First, we calculate a traditional Jensen's alpha from the following regression:

$$R_{it} - r_{ft} = \alpha_i + \beta (R_{mt} - r_{ft}) + \varepsilon_{it}$$
 (1)

where R_{it} is the return on portfolio i in period t, R_{mt} is the return on the market portfolio in period t, and r_{ft} is the risk-free rate in period t. In this formulation, any portfolio returns in excess of the risk-free rate not accounted for by the market risk premium show up as a positive estimated intercept, α_i . We also estimate α_i using the standard three-factor model of Fama and French (1993), who explain the cross-section of portfolio returns using the following regression:

$$R_{it} - r_{ft} = \alpha_i + \beta_i (R_{mt} - r_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it}$$
(2)

where R_{it} , R_{mt} , and r_{fr} are defined as before, SMB is the difference between returns on small- and large-cap stock portfolios with about the same weighted-average book-to-market equity and HML is the difference between returns on high and low book-to-market equity portfolios of roughly the same average size. SMB and HML represent factors that capture the firm-size and book-to-market performance effects, respectively.

Panel A in Table 2 shows the intercepts of OLS regressions for the 1038 domestic equity portfolios in our sample with at least the 12 most recent quarters of reported returns. The time period under study runs from 1979 to the first quarter of 1997, although data for recent quarters are more abundant. The mean alpha is almost 81 basis points per quarter, or 3.2% annually (3.3% compounded quarterly). Eighty-eight of the intercepts are positive, 23% significantly so. These astronomical alphas can be attributed to data biases rather than to anomalies of the particular benchmarks for several reasons. First, mutual funds follow standardized reporting practices prescribed by the SEC and exhibit average alphas much closer to zero. They report returns net of management expenses, whereas the returns in our data are on a gross-ofexpenses basis. Consequently, our alphas will be inflated by comparison. Second, Carhart (1997) uses the Fama-French factors on mutual fund data and finds intercepts near zero. It is doubtful private money managers systematically outperform their public counterparts. Third, Table 2 shows that performance is cut almost in half with very few statistically significant alphas when only the most recent 21 quarters of returns are used to calculate performance. As a result, much

of the positive performance is embedded in the early performance numbers of surviving firms, which could suggest that survivorship bias is significant. Alternatively, the tendency for superior performance to be loaded in the front end of the time series could result from some currently reporting firms failing to report some earlier periods of poor performance. It could also result from Mobius' increasing popularity over time, which increased the impetus for firms to be included in the database even without especially strong performance to report. The results of the tests that follow are qualitatively identical whether using only recent performance data or the full return set, so this bias does not affect our conclusions. Finally, Panel A shows that Jensen's alphas are similarly large. The following analysis contains several tests of robustness designed to mitigate the effect of performance, survivor, and selection bias and shows that our results withstand, and in some cases are strengthened by, these alternative specifications. These biases may nonetheless continue to influence our results. It possible, for example, that underperforming companies that make heavy use of bundling or soft dollars are more likely to be absent from the data set than underperforming companies that do not.

Panel B provides external validity to the data. The Mobius database provides classifications for equity management styles, such as small-cap, value, and growth, which ought to be correlated with the size and book-to-market coefficients in Eq. (1). Strategy classes are measured on a discrete scale of zero to three. Three reflects the manager's assessment that the strategy class accurately describes the fund's strategy, while a measure of zero reflects an inaccurate description. Classifications one and two are hybrids, and a portfolio can have multiple classifications. The Pearson correlation coefficient between s, the coefficient on SMB, and the small-cap strategy class variable is a significant 0.66, indicating that the small-cap variable is truly capturing the portfolios' sensitivity to movements in small stocks. The correlation of h, the coefficient on HML, with the value and growth strategy class variables is 0.52 and -0.52, respectively, indicating that portfolios classified as value tend to have high estimated h coefficients, while portfolios classified as growth tend to have low estimated h coefficients. These correlations are also stable over time. Our findings suggest that the portfolios exhibit returns consistent with the strategy classifications.

Our data do not identify money managers' receipt of bundled research directly, either through soft brokerage dollar arrangements or traditional institutional brokerage arrangements. To the best of our knowledge, this data is unavailable in conjunction with returns data, no doubt because managers typically consider it proprietary. Instead, we assume bundling is proportional to Premium Commissions per Managed Dollar (PCMD), calculated as the average premium commission rate times annual turnover expressed as a percentage of portfolio value. 47

⁴⁷ To calculate premium commissions, we deduct two cents per share from a portfolio's average commission rate to net out the execution-only rate,

Table 2 Performance and risk measures

Model	N	Qtrly. me	ean α Stan	dard deviation	No. pos. (%)	No. neg.	Significant and po	s. (%) Sign	nificant and neg. (%)
Panel A: Intercepts (α)								
FF three-factor									
1979-1997Q1	1038	0.806	1.01		913 (88.0)	125	235 (22.6)	3(0	.00)
1992-1997Q1	1038	0.429	0.93		740 (71.3)	198	62 (6.0)	4(0	.00)
Jensen single-facto	or								
1979–1997Q1	1038	0.534	0.82		853 (82.2)	185	167 (16.1)	3(0	.00)
			Strategy class						
			s	h		Small ca	pitalization	Value	Growth
Panel B: Pearson cor	relation co	oefficients							
s (p-value)			1.00 (-)						
h (p-value)			-0.17(0.000)	1.0	00 (-)				
Small capitalization	n (p-value	e)	0.66 (0.000)	-0.1	17 (0.000)	1.00 (-)		
Value (p-value)			-0.17(0.000)	0.3	52 (0.000)	-0.07(0	.028)	1.00 (-)	
Growth (p-value)			0.20 (0.000)	-0.3	52 (0.000)	0.18 (0	.000)	-0.41 (0.000	1.00(-)

Note: Coefficients from OLS regressions of equity and cash quarterly portfolio excess returns on benchmarks calculated using the Fama and French (1993) methodology for 1038 portfolios, $R_{it} - r_{ft} = \alpha_i + b_i (R_{mt} - r_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it}$. Specifically, MKT, SMB, and HML capture the market effect, firm size effect, and book-to-market effect in security returns, respectively. B, B, B, and B are the respective OLS coefficients. Portfolio returns are taken from data provided by Mobius Group, Inc. To be included in the analysis, a portfolio must have at least 12 quarterly returns in the database and returns must be gross of fees. The restricted sample has four filters: returns must be (i) gross of fees, (ii) based on discretionary portfolios, (iii) include terminated accounts, and (iv) not be from a prior firm. Small Capitalization, Value, and Growth are variables used by sample managers to describe their investment strategy. Strategy classes are measured on a discrete scale of 0–3. Three is descriptive of the fund's strategy, while zero is not descriptive. Figures are in percent.

Our measure of PCMD may be inflated by situations in which managers pay a premium commission to a reputable broker for skilled execution of very difficult trades while receiving no bundled research. If the manager has ex ante knowledge of execution quality based on a broker's reputation, he may pay a premium commission for difficult trades because the broker's reputation serves as an alternative performance bond. Many factors affect trade difficulty. For example, large blocks of securities are more difficult to trade without creating price impact than small blocks. Similarly, small-cap stocks tend to be thinly traded and less liquid than large-cap stocks. They are therefore more difficult to trade without creating price impact. A manager's investment strategy is likely to influence trade difficulty as well. Trades for active portfolio managers (especially the successful ones) are often motivated by private information, whereas index fund trades are typically viewed as uninformed and motivated by liquidity concerns when the composition of the index changes or to meet capital flows. Index funds do virtually no research and no privately informed trades, and they are unlikely to face the kind of price impact actively managed portfolios face.⁴⁸

thereby capturing the effect of paying up for brokerage. Being a constant, the two-cent deduction will have no effect on the magnitude of our estimates or standard errors of the slope coefficients, although it does decrease the magnitude of the intercept. The deduction is empirically unimportant, but theoretically meaningful in that it more accurately reflects the theory. In any event, the results that follow are insensitive to the exact amount of the execution-only deduction.

As a result, trades for active managers are more difficult to execute than for passive managers, all else being equal.

It is clear that PCMD reflects both bundling and the skillful handling of difficult trades in exchange for a high commissions rate. We know of no database that differentiates the premium commission rate based on bundling from that based purely on trade difficulty, but we address this issue econometrically in several ways. First, we characterize each portfolio according to specific strategy classes such as overall size, small-cap style versus large-cap style, and index orientation. These attributes proxy for trade difficulty and are included as control variables in our regressions. The coefficients on PCMD should be interpreted holding these proxies for trade difficulty constant. Second, we implement a two-step process that removes the effect of strategy class variables that proxy for trade difficulty on PCMD, presumably tending to isolate the effect of the research subsidy on the manager's incentives in the PCMD variable.

To the extent these proxies remove the impact of trade difficulty on the relation between PCMD and performance, they will understate the positive influence of bundled brokerage in favor of rejecting the incentive alignment hypothesis

⁴⁸ The lore on the street is that when index portfolios go to rebalance informed traders in the same securities attempt to pass themselves off as index portfolios. Since index portfolio trades are thought to be uninformed, this allows the interlopers to limit price impact on their informed trades.

The contra-parties to these transactions, having been fooled, may thereafter discount the status of a trader claiming represent an index portfolio. This leads to potential price impact on index portfolio trades and explains why index portfolios may occasionally pay a premium commission to reduce price impact. To combat this problem, many index funds auction their trades as a package to broker–dealers, with the broker–dealers bidding on the price at which they will buy or sell the underlying securities as principals for their own account. In this case, no brokerage commission is generated and transaction costs to the portfolio are minimized. These transaction costs, in the form of the bid-ask spread, do not show up in our database.

because they absorb at least some of the bonding effect. In any case, the notion of managers paying high commissions to reputable brokers for difficult trades in the absence of bundling is simply a different form of bonding and therefore consistent with the incentive alignment hypothesis. This form of bonding does not provide all the benefits of bundling, which also subsidizes the manager's research.

Our measure of paying up contrasts with that of Conrad et al., who examine the average commission premium paid to soft dollar brokers as opposed to brokers that provide other forms of bundled research. While they focus exclusively on commission rates, we account for the possibility that managers pay up for brokerage both by paying higher commission rates and by increased trading (portfolio turnover). If bundled brokerage adds no value, increasing either the average commission rate or turnover will have a negative effect on portfolio returns. Alternatively, if bundled brokerage reflects efficient economic organization, the benefits from capturing the returns to private information will more than offset the costs imposed by premium commission rates and increased turnover.

6. Results

6.1. Commission rates and turnover

Many factors other than bundling affect commission rates and turnover, including portfolio size, the number of accounts, and trade difficulty. Table 3 shows how these factors affect average commissions, turnover, and PCMD. The dependent variable in the first regression is the average premium commission rate in cents per share. Holding other factors constant, we find a negative relation between portfolio assets and average commissions, no doubt because significant economies of scale exist in trading securities. The regression in the first column also shows that an increase in the number of accounts managed in each portfolio increases commission rates, which is consistent with our prediction that a larger number of accounts increases administrative costs for the broker booking the trades. The support of the strades of the broker booking the trades.

As already noted, index funds have little or no reason to pay premium brokerage commissions. "Index" in Table 3 is a step variable that can take on four different values. An index classification of three very accurately describes a portfolio as indexed, while a classification of zero indicates that it would be wrong to apply the term indexed to the portfolio's strategy. After adjusting for assets, number of accounts, tax-exempt status, and turnover, Table 3 shows that indexed portfolios pay about one cent per share less in commissions than actively managed portfolios (i.e. the coefficient times the number of index classification steps, 0.30×3). The coefficient is not statistically significant for a single increment change (e.g. zero to one) in the index classification variable, but it is statistically significant for changes of two and three increments. The one-cent difference is also economically significant relative to the median rate of six cents per share. Under the unjust enrichment hypothesis, this difference approximates the extent to which active portfolio managers attempt to unjustly enrich themselves.⁵¹ Under the incentive alignment hypothesis, it approximates the quality-assuring commission premium.

An increase in the administrative costs of trading should also decrease the rate of portfolio turnover, as shown in the second regression in Table 3. The relation between the number of accounts and turnover is negative, as predicted, and index portfolios exhibit significantly less turnover, also as predicted. In all, the independent variables explain 16% and 12% of the cross-sectional variation in average commissions and turnover, respectively.

The relation between strategy classes and either commission rate or turnover presented in Table 3 (of which few are statistically significant) could be influenced by variation in Section 28(e)'s safe harbor protection, which permits investment managers to pay up for brokerage in exchange for investment research as long as the premium commission is commensurate with the value of the research and brokerage services received. This protection was revoked for principal trades - those in which the "broker" acts as a dealer for his own account rather than as an agent - during the latter part of the period covered by our database. Securities in over-the-counter markets (e.g. National Association of Securities Dealers Automated Quotation System (NASDAQ)) trade on a principal basis and tend to involve small- and mid-cap stocks, while exchange-listed securities typically trade on an agency basis and tend to involve largecap stocks. If a certain strategy class tends to trade more NASDAQ stocks (e.g. small-cap or growth stocks), then this lack of 28(e) protection may or may not be reflected in the reported commission rate. One reason reported commission rates may not reflect a lack of 28(e) protection is that they relate only to agency trades in exchange-listed stocks. Alternatively, reported commission rates may reflect differences in 28(e) protection if managers performing more principal trades pay higher agency commission rates to recoup lost soft dollar benefits not permitted on principal trades. In any case, these potential relations will not bias our results because the

⁴⁹ Much of a broker's and manager's effort and costs in trading a block of securities are invariant to the size of the block, implying that commission rates should decrease with block size, all else being equal. If block size is directly related to assets under management, then average commission rates should decrease with portfolio assets.

⁵⁰ If the manager is trading a specific a block of securities for only one large account, the broker need book only one trade. If he is trading the same size block for a large number of accounts, the administrative work increases at least linearly in the number of accounts.

⁵¹ We are assuming that the opportunities index fund managers have for unjust enrichment are virtually nil due to the ability of investors to assess relative performance.

Table 3
Cross-sectional OLS regressions of commissions, turnover, and total commissions on portfolio variables

	Dependent variable						
	(1) Average premium commission rate		(2) Annual turnover		(3) Premium commissions per managed dollar		
	Parameter estimate	p-Value	Parameter estimate	<i>p</i> -Value	Parameter estimate	<i>p</i> -Value	
Intercept	9.11	0.000***	104.16	0.000***	637.18	0.000***	
In(Assets)	-0.90	0.000***	-0.81	0.432	-35.35	0.000^{***}	
ln(Accounts)	0.84	0.000***	-4.65	0.001***	7.00	0.429	
%Tax-exempt assets	-1.87	0.000^{***}	-5.02	0.341	-178.73	0.000^{***}	
Annual turnover	-0.01	0.003***					
Average soft-dollar commission			-0.92	0.003***			
Strategy classes							
Value	0.09	0.618	-7.07	0.000^{***}	-29.27	0.014^{**}	
Growth	0.16	0.359	2.53	0.144	20.51	0.127	
Small capitalization	-0.05	0.728	1.38	0.383	-4.19	0.733	
Broad market	0.25	0.124	1.78	0.283	8.60	0.504	
Market timer	-0.17	0.615	2.85	0.390	29.07	0.260	
Sector rotator	0.01	0.956	2.81	0.236	3.69	0.841	
Index	-0.30	0.242	-14.71	0.000^{***}	-49.44	0.013**	
Contrarian	-0.05	0.803	-3.15	0.140	-3.02	0.855	
Theme selection	0.41	0.035**	-1.41	0.472	29.03	0.056	
Defensive	-0.00	0.999	-2.02	0.376	-12.95	0.467	
Core	-0.09	0.567	-3.14	0.048**	-21.21	0.085^{*}	
Mutual fund timing	-2.59	0.000***	31.94	0.000***	-176.28	0.002***	
N	1038		1038		1038		
<i>F</i> -value	13.28	0.000***	10.01	0.000^{***}	7.65	0.000^{***}	
Adj. R-squared	0.16		0.12		0.09		

Note: Ordinary least squares regressions of average commission rates and turnover on fund characteristics from the 1997 first quarter Mobius database. Average Premium Commission Rate is the average commission rate on equity trades expressed in cents per share less an execution-only commission rate of two cents per share. Annual turnover is the minimum of purchases or sales divided by average market value. Premium Commissions per Managed Dollar is the product of Average Premium Commission Rate and Annual Turnover. ln(Assets) is the natural log of portfolio assets. ln(Accounts) is the natural log of the number of accounts managed. Strategy classes are measured on a discrete scale of 0–3. Three is descriptive of the fund's strategy, while zero is not descriptive. They are included to control for the effect of investment philosophies on commissions and turnover. Funds have at least 12 quarters of reported returns.

following model specifications reduce the impact of strategy classes (and hence systematic variation in 28(e) protection) on PCMD.

The third regression in Table 3 shows how PCMD are related to portfolio characteristics. Investors can monitor managers in a number of ways, and when ownership concentration is high they have a greater incentive to do so. Horan (1998) presents evidence consistent with the notion that managers having pension funds as clients (i.e. those managing tax-exempt assets) are more heavily monitored than those without. Table 3 shows that larger portfolios and those composed of pension assets seem to use less bundled brokerage, as do portfolios in certain strategy classes (e.g. index, mutual fund timing). These results suggest that bundling is less common in situations subject to alternative monitoring mechanisms and are consistent with both the unjust enrichment hypothesis and incentive alignment hypothesis. Although we do not report the results, the effect of portfolio size and the number of accounts on PCMD were qualitatively unaffected when we excluded various strategy class variables.

6.2. PCMD and performance

Table 4 shows the relationship between bundling and performance. The first regression is a univariate test, which shows that PCMD is positively associated with risk-adjusted returns at the 99% confidence level. Since risk-adjusted returns – reported in decimal units such that 0.10 represents a 10% return – are net of commissions (and other transaction costs), bundled brokerage appears to provide a net benefit to investors. The coefficient on PCMD can be interpreted as follows. For a typical manager having 50% annual turnover (see Table 1), increasing the average commission rate by two cents per share (i.e. increasing PCMD by one cent per share traded) increases performance by 4.3 basis points per quarter, or about 13 basis points annually.

We remove the effect of trade difficulty on PCMD through a two-step process. In the first step, we regress PCMD against the other independent variables listed in Table 3. Some of these variables (e.g. portfolio size, small-cap, and index) proxy for trade difficulty. In the second step, we use the

^{*} Significant at the 10% level.

^{**} Significant at the 5% level.

^{***} Significant at the 1% level.

Table 4
The effect of soft dollars on performance

	Estimated alpha from Fama and French (1993) OLS regressions				
Intercept Promising commissions per managed dellar	0.675*** 0.043***	0.928	0.905***		
Premium commissions per managed dollar Premium commissions per managed dollar residual	0.043	0.036***	0.023***		
ln(Assets)		0.030	0.023		
ln(Accounts)		0.010	0.002		
%Tax-exempt assets		-0.256***	-0.200**		
Value			-0.104***		
Growth			0.119***		
Small capitalization			0.186***		
Broad market			-0.035		
Market timer			-0.011		
Sector rotator			-0.056		
Index		-0.247^{***}	-0.198^{***}		
Contrarian			-0.075^{**}		
Theme selection			0.048		
Defensive			-0.054		
Core			-0.095***		
Mutual fund timing			-0.382^{***}		
N	1038	1038	1038		
F-value	35.62***	15.33***	21.93***		
Adj. R-squared	0.03	0.06	0.24		

Note: Intercepts from OLS regressions of equity and cash quarterly portfolio excess returns on the Fama and French (1993) benchmarks, $R_{it} - r_{ft} = \alpha_i + b_i (R_{mt} - r_{ft}) + s_t SMB_t + h_i HML_t + \varepsilon_{it}$. Specifically, MKT, SMB, and HML capture the market effect, firm size effect, and book-to-market effect in security returns, respectively. Portfolio returns are taken from data provided by Mobius Group, Inc. and cover the 1979–1997 first quarter period. To be included in the analysis, a portfolio must have at least 12 quarterly returns in the database. The product of Soft-Dollar Commission and Annual Turnover is Premium Commissions per Managed Dollar. In(Assets) is the natural log of portfolio assets. In(Accounts) is the natural log of the number of accounts managed. The Index variable and other strategy class variables are measured on a discrete scale of 0–3. Three is descriptive of the fund's strategy, while zero is not descriptive. Percent tax-exempt assets is the proportion of the portfolio composed of pension assets. To avoid colinearity, the Premium Commissions per Managed Dollar Residual term is the OLS residual from having Premium Commissions per Managed Dollar as the dependent variable and all other factors as independent variables. The residual term represents the portion of soft dollar brokerage left unexplained by the remaining independent variables.

residuals from this regression as an independent variable in the regressions in Table 4, so that by definition the variation in PCMD is uncorrelated with our proxies for trade difficulty. The significant positive relation between bundling and portfolio performance persists. Consequently, the positive relation between PCMD and performance does not seem to be attributable to PCMD's relation to any of the independent variables or factors for which they proxy, such as trade difficulty.⁵²

By way of example, the effect of Index on performance, independent of its correlation with PCMD, is negative and significant in the second and third regressions in Table 4. It appears index portfolios underperform their actively managed counterparts either in the presence or absence of other strategy class control variables. This may be an accurate reflection of the selection and reporting biases in

the Mobius database, as index portfolios should have little reason to misreport.⁵³ If so, Index can be safely viewed as a control group for the level of selection and reporting bias in the rest of the sample. The results also suggest that portfolios with a high proportion of pension assets have relatively low returns compared to portfolios having non-pension assets, which is consistent with evidence presented by Ambachtsheer (1994). None of these results are qualitatively affected by whether or not we account for the colinearity between the dependent variables.

The positive relation between PCMD and performance withstands further tests of robustness. Table 5 examines the relation between PCMD and performance using different samples and different estimation procedures. The data on commission rates and turnover (and hence our soft dollar proxy) pertain to the first quarter of 1997. As a result, relating current commission rates and turnover to returns from the

^{**} Significant at the 5% level.

^{***} Significant at the 1% level.

⁵² Because any number of omitted variables could influence PCMD, our main explanatory variable of interest, it is tempting to use a simultaneous equations model to distinguish between the UEH and the IAH. This would be unwise, however, because we can think of no compelling theoretical reason why alpha and PCDM are jointly determined or why alpha would determine PCMD. We have strong theoretical reason to believe PCMD is likely to influence alpha. Both the UEH and IAH predict so, albeit in opposite ways.

⁵³ On the other hand, even pure index portfolios, those scaled as a three in the Mobius database, are subject to tracking error and plain old bad management, so some index portfolios may avoid reporting occasionally. What is more, Wermers (2000) finds that actively managed mutual funds outperform the Vanguard Index 500 Fund on a net return basis, so the apparent underperformance of index portfolios may not be entirely the result of selection and reporting biases.

Table 5
Robustness tests of the effect of soft dollar brokerage on performance

	Dependent variable: estimated alpha from performance regressions				
	(1) 1992–1997 returns	(2) Weighted OLS by the SE reciprocal	(3) Jensen's alpha		
Intercept	0.736***	0.558***	0.589***		
Premium commissions per managed dollar residual	0.015**	0.020***	0.010^{*}		
ln(Assets)	0.007	0.011	-0.013^{***}		
ln(Accounts)	-0.004	0.024^{*}	0.052***		
%Tax-exempt assets	-0.366^{***}	-0.093	-0.166^{**}		
Value	-0.007	-0.079***	0.082***		
Growth	0.024	0.105***	-0.040		
Small capitalization	0.068**	0.131***	-0.019		
Broad market	-0.042	-0.021^*	-0.013		
Market timer	-0.034	-0.007	-0.032		
Sector rotator	-0.036	-0.054	0.016		
Index	-0.102^{**}	-0.136^{***}	-0.067^{*}		
Contrarian	-0.007	-0.026	0.005		
Theme selection	0.027	0.059^*	-0.000		
Defensive	-0.101^{***}	-0.069^{***}	0.031		
Core	-0.025	-0.055^{***}	-0.036		
Mutual fund timing	-0.301^{**}	-0.231**	-0.210^{*}		
N	1038	1038	1038		
<i>F</i> -value	5.11***	25.65***	4.84***		
Adj. R-squared	0.06	0.28	0.06		

Note: Intercepts from OLS regressions of equity and cash quarterly portfolio excess returns on the Fama and French (1993) benchmarks, $R_{it} - r_{ft} = \alpha_i + b_i (R_{mt} - r_{ft}) + s_i \text{SMB}_t + h_i \text{HML}_t + \varepsilon_{it}$. Specifically, MKT, SMB, and HML capture the market effect, firm size effect, and book-to-market effect in security returns, respectively. Portfolio returns are taken from data provided by Mobius Group, Inc and cover the 1979–1993 period. To be included in the analysis, a portfolio must have at least 12 quarterly returns in the database. The product of Soft-Dollar Commission and Annual Turnover is Premium Commissions per Managed Dollar. ln(Assets) is the natural log of portfolio assets. ln(Accounts) is the natural log of the number of accounts managed. The strategy class variables are measured on a discrete scale of 0–3. Three is descriptive of the fund's strategy, while zero is not descriptive. Percent tax-exempt assets is the proportion of the portfolio composed of pension assets. To avoid multicollinearity, the Premium Commissions per Managed Dollar Residual term is the OLS residual from having Premium Commissions per Managed Dollar as the dependent variable and all other factors as independent variables. Regression (1) uses alphas estimated from returns in 1992 through the first quarter of 1997. Regression (2) is a weighted-OLS regression weighted by the reciprocal of the standard error of the estimated Fama–French alpha. The dependent variable in regression (3) is a Jensen's single-factor alpha using the Fama–French market proxy.

distant past may produce spurious correlations. In a practical sense, this is unlikely to present a problem because the brokerage data are related to strategy classes (see Table 3), which remain fairly stable over time. Nonetheless, to address this potential timing mismatch between returns data and brokerage data, we estimate the relation using only the most recent 5 years of returns, from 1992 to the first quarter of 1997. The positive relation between PCMD and risk-adjusted returns remains significant at the 95% level of confidence.

These results are inconsistent with the unjust enrichment hypothesis and fail to reject the incentive alignment hypothesis, but they could reflect a spurious correlation arising from selection or survivorship bias. Suppose, for example, that alpha-risk is correlated with PCMD. In data characterized by survivor bias, surviving portfolios with high alpha-risk will tend to have higher alphas, on average. In this case, PCMD and alpha could be spuriously correlated through their common relation with alpha-risk rather than through some causal link.

To avoid this spurious correlation we attempt to control for the effects of alpha-risk on any performance-related bias in the data by weighting the observations in our OLS analysis by alpha-risk. Some estimates of risk-adjusted performance are better than others because some estimated alphas are less noisy than others in a statistical sense. A portfolio's variation in alpha is a reasonable proxy for alpha-risk. To place greater emphasis on those observations with more reliable estimates of performance and thus less emphasis on observations vulnerable to survivor bias, we perform a weighted-OLS analysis on the entire sample using the reciprocal of the alphas' standard error as weights. The statistical relation between PCMD and alpha strengthens, and the adjusted R^2 increases dramatically. Not only does the positive relation between PCMD and alpha withstand control for possible spurious correlations caused by alpha-risk, but this result suggests that the relation for PCMD and alpha is stronger in situations where performance measures are more reliable. A more pronounced relation for more reliable performance estimates can only be consistent with the incentive alignment hypothesis and inconsistent with the unjust enrichment hypothesis.

We also estimate the relation between bundling and performance using a traditional Jensen's alpha as our performance

^{*} Significant at the 10% level.

^{**} Significant at the 5% level.

^{***} Significant at the 1% level.

metric. In both cases, bundling is positively associated with risk-adjusted performance. Although not reported here, we also weighted observations based on portfolio size, with qualitatively identical results. The results were essentially the same when using various combinations of sample construction and estimation procedures. In sum, support for the incentive alignment hypothesis stands up to and is perhaps strengthened by our various model specifications that control for potentially spurious effects.

The positive relation between PCMD and risk-adjusted returns allows us to reject the unjust enrichment hypothesis. We strongly fail to reject the hypothesis that bundling aligns brokers' and managers' incentives to enhance portfolio wealth and less strongly fail to reject the hypothesis that soft dollar bundling provides these benefits. Assuming, as we do, that PCMD is a reliable proxy for bundled brokerage, a critical question is why bundling should generate persistent risk-adjusted returns. If market participants are quick to mimic those whose methods prove superior, then all riskadjusted returns should be competed away in the long run. One explanation for persistent returns is that portfolio managers truly perceive a nonzero risk of civil suit or negative publicity when using soft dollars and that this risk must be compensated with superior performance. A more plausible explanation is that the know-how to generate superior portfolio performance results from the manager's ability to establish a relationship of trust with his brokers. Paying up by itself is a necessary but not sufficient condition for establishing this trust. To generate persistent excess returns, the know-how of using soft dollars and other forms of bundling effectively to build trust must be difficult for outsiders to discern or mimic, making it difficult for rival managers to generate superior portfolio performance simply by paying up.

6.3. Soft dollars and management fees

Another way to distinguish between the incentive alignment hypothesis and unjust enrichment hypothesis is to examine management fees. If managers use bundled brokerage to unjustly enrich themselves, in a competitive labor market the expectation of being able to capture this value should be reflected in lower management fees. On the other hand, if bundling aligns managers' incentives in the absence of other monitoring mechanisms, management fees should be either unrelated to paying up for bundled brokerage or positively related. Table 6 shows the effect of bundling on management fees. Management fees expressed in basis points for various account sizes appear to be unrelated to bundling regardless of account size. Interestingly, fees tend to increase with past performance, suggesting that managers who recently reported positive risk-adjusted returns gain the power to bargain for higher fees. Although the estimated coefficients on alpha are statistically insignificant, their significance increases with account size. Note that the expected negative relation between indexing and management fees is clear.

The relation between bundling and management fees is generally positive and statistically significant for large accounts. According to the third regression in Table 6, for example, a typical manager of a US\$ 100 million account having 50% annual turnover who pays an extra two cents per share in brokerage commissions (i.e. an extra one cent per managed dollar) is able to charge an extra 1.05 basis points in management fees. For the average manager with over a billion dollars in a given portfolio (see Table 3), an extra basis point in management fees equates to an extra US\$ 100,000 in revenue. When one considers that a typical manager is responsible for several different portfolios, the incremental revenue of several hundred thousand dollars can be economically significant. It appears that managers do not accept lower management fees in an attempt to unjustly enrich themselves through bundled brokerage. Rather, investors appear to reward managers that rely on bundling with slightly higher management fees or, at least, they do not appear to punish the practice. These results are consistent with the incentive alignment hypothesis but inconsistent with the unjust enrichment hypothesis.

Our analysis assumes the labor market for institutional money managers is competitive. If not, high fees and inefficient bundling could persist, and the two might even be positively correlated, thereby supporting the UEH. But the evidence strongly suggests the labor market for private money managers is highly competitive. It is dominated by a concentrated investor base with the resources and highpowered incentives to monitor managers closely, with many investors being defined benefit pension plans that are residual claimants to portfolio performance. Worthy of note, the industry is closely watched by thousands of consultants dedicated to assessing managerial performance both ex post and ex ante. The mutual fund industry, by contrast, is characterized by atomistic investors who lack the wherewithal or the incentive to monitor managers. This competitive difference between mutual fund and private money management may help explain why fees are so much lower in the latter. In any case, we are confident in our assumption that the labor market for institutional money managers is competitive when interpreting the relationship between fees and performance.

These results withstand the same tests of robustness as the relation between bundling and performance. Since the data concerning management fees pertain to the most recently reported quarter and since older returns data may be mismatched with current data on management fees, we restrict the analysis to returns reported over the most recent 5 years in the first regression in Table 7. The positive relation between bundling and management fees remains intact, suggesting investors do not penalize managers for using bundled brokerage. Weighting observations by the reciprocal of the alpha's standard error in regression (2) produces some interesting results. First, it dramatically increases the explanatory power of the regression as reflected in the adjusted *R*-squared of 62%. Although the positive relation between PCMD and management fees weakens slightly, the positive relation

Table 6
The effect of soft dollars on management fees

	(1) Fee1MM	(2) Fee10MM	(3) Fee50MM	(4) Fee100MM
Intercept	137.01***	72.39***	69.86***	66.57***
Alpha	8.66	1.78	2.89	2.85
Premium commissions per managed dollar residual	-1.52	0.85	0.87**	1.05***
ln(Assets)	21.33***	1.02	-0.00	0.19
ln(Accounts)	-19.13***	0.02	-2.71	-3.09**
%Tax-exempt assets	-84.08^{***}	0.71	-8.88	-10.86^*
Index	-42.70^{***}	-18.97^{***}	-14.40^{***}	-13.63^{**}
N	161	161	161	161
F-value	5.51***	2.87***	13.52***	13.44***
Adj. R-squared	0.14	0.07	0.32	0.32

Note: Cross-sectional OLS regressions of management fees on portfolio variables from the 1997 first quarter Mobius, Inc. database. Parameter estimates are expressed in bass points. In(Assets) is the natural log of portfolio assets. In(Accounts) is the natural log of number of accounts managed. The Index Fund variable takes on values of 0–3 with 3 being a bona fide index fund and 0 being an actively managed portfolio as described by the money manager. The product of Average Soft-Dollar Commission and Annual Turnover is a measure of Premium Commission per Managed Dollar. Alpha is the intercept of the OLS regression of portfolio returns on the Fama and French (1993) risk factor proxies. Percent tax-exempt assets is the percent of pension assets in the portfolio. Fee1MM, Fee10MM, Fee50MM, and Fee100MM are management fees in basis points on 1-million, 10-million, and 100-million dollar accounts, respectively.

between performance and management fees strengthens dramatically and is significant at the 95% level of confidence. This suggests private money management clients are willing to pay higher management fees when historical risk-adjusted returns are less noisy, that is, when alpha-risk is lower. Finally, measuring performance with a traditional Jensen's alpha also yields a positive relation between PCMD and management fees. The results are qualitatively unaffected by weighting observations by portfolio size or by using various combinations of sample construction and estimation procedures.

7. Summary and conclusions

Rather than creating conflicts of interest in institutional portfolio management, soft dollars actually appear to avoid conflicts by reducing transaction costs among private money management clients, managers, and brokers. As a policy matter, all the criticisms leveled at soft dollars are actually misguided criticisms of any arrangement in which research and execution costs are bundled into a single institutional brokerage commission. The widespread hostility to soft dol-

Table 7
Robustness tests of the effect of soft dollars on management fees

	Dependent variable: Fee100MM				
	(1) 1992–1997 returns	(2) Weighted OLS by the SE reciprocal	(3) Jensen's alpha		
Intercept	69.02	56.95***	69.89***		
Alpha	-0.78	5.89***	-2.67		
Premium commissions per managed dollar residual	1.18***	0.83**	1.22***		
ln(Assets)	0.09	-0.54	-0.07		
ln(Accounts)	-2.88**	-1.25	-2.59^{**}		
%Tax-exempt assets	-11.24^*	-5.92	-10.81^*		
Index	-14.07^{***}	-12.62***	-14.20^{***}		
N	161	161	161		
F-value	12.89***	44.12***	13.18***		
Adj. R-squared	0.31	0.62	0.31		

Note: Cross-sectional OLS regressions of management fees on portfolio variables for 1993 taken from the 1994 Mobius, Inc. data base. Parameter estimates are expressed in basis points. In(Assets) is the natural log of portfolio assets. In(Accounts) is the natural log of number of accounts managed. The Index Fund variable takes on values of 0–3 with 3 being a bona fide index fund and 0 being an actively managed portfolio as described by the money manager. The product of Average Soft-Dollar Commission and Annual Turnover is Premium Commission per Managed Dollar. Alpha is the intercept of the OLS regression of portfolio returns on the Fama and French (1993) risk factor proxies or a single-factor performance model as indicated. Percent tax-exempt assets is the percent of pension assets in the portfolio. Fee100MM is the management fees in basis points on a 100-million dollar account. Regression (1) has four filters: returns must be (i) gross of fees, (ii) based on discretionary portfolios, (iii) include terminated accounts, and (iv) not be from a prior firm. Regression (2) uses alphas estimated from returns in 1989–1993. Regression (3) is a weighted-OLS regression weighted by the reciprocal of the standard error of the estimated Fama–French alpha. The dependent variable in regression (4) is a Jensen's single-factor alpha using the Fama–French market proxy.

^{*} Significant at the 10% level.

^{**} Significant at the 5% level.

^{***} Significant at the 1% level.

^{*} Significant at the 10% level.

^{**} Significant at the 5% level.

^{***} Significant at the 1% level.

lars arises because bundling appears intended to, and no doubt has the effect of, influencing the agent's fiduciary decisions. Given the myriad incentive problems that arise in the principal-agent setting and the novel arrangements market participants often devise to address these problems, such influence is more likely to guide agents toward optimal decision-making than away from it. Within the constraint imposed by the transaction costs of economic organization, market participants can be relied on to eliminate any inefficiencies from conflicts of interest, not because they are boy scouts but because doing so allows all parties to share in the increased gains from trade. Where a market-wide conflict of interest persists, the presumption should therefore be that it is the best of the available alternatives and that any attempt to correct it by regulatory fiat without a careful analysis of the transaction costs of economic organization is likely to make the situation worse rather than better.

Although data limitations prevent us from directly measuring soft dollar use, we are able to measure bundling more generally. Since soft dollars compete directly with, and closely substitute for, other forms of bundled institutional brokerage, it is entirely plausible that all forms of bundling for premium commissions reflect a reputational rent designed to assure execution quality. With soft dollars the reputational performance bond is fairly easy to observe because the parties account formally for the temporal value flows, but full-service and research brokers are well known to possess established reputations for performing high-quality executions even though they may not formally account for all temporal value flows in all their long-term relationships with managers. In any event, like all bundling, soft dollars subsidize the manager's use of research to the benefit of portfolio investors. Our empirical results are consistent with the basic theoretical analysis we provide for soft dollars and for bundling more generally.

Our empirical findings are limited to private portfolio management, whereas much of the controversy surrounding soft dollars has focused on public mutual funds. This is no doubt because mutual funds have dispersed shareholders who face a collective action problem monitoring fund managers. Yet, they also have the benefit of public disclosure and standardized performance reporting as prescribed by the SEC. What is more, mutual fund flows are extremely sensitive to reported performance and other anomalies, possibly providing a measure of managerial discipline. We therefore believe our findings call for more careful investigation before further regulation of soft dollars is warranted in either setting. We also think the SEC should reconsider its finding that software designed to monitor the quality of broker executions falls outside the Section 28(e) safe harbor. More broadly, our findings counsel a thorough examination of third-party payments and other apparent conflicts of interest before they are summarily condemned in the public policy arena. Our analysis suggests that further work explicitly accounting for the effects of third-party payments on agents' incentives would be invaluable both in furthering the body of agency theory and in fostering salutary regulation of financial and other markets.

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THE SEC'S 2006 SOFT DOLLAR GUIDANCE: LAW AND ECONOMICS

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THE SEC'S 2006 SOFT DOLLAR GUIDANCE: LAW AND ECONOMICS

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Abstract

After some two years of deliberations, in July 2006 the SEC released its long-awaited Guidance on the scope of the "soft dollar safe harbor." Passed as part of the Securities Acts Amendments in May, 1975, the safe harbor has protected fund advisers and other money managers for over 30 years from criminal actions and civil suits for breach of fiduciary duty when they use client assets to pay more than the lowest available brokerage commissions in exchange for "brokerage and research services." During this time the SEC has interpreted and re-interpreted the safe harbor's scope, largely owing to the public controversy soft dollars engender as a form of illicit "kickback" designed to subvert advisers' loyalty. The SEC's 2006 Guidance attempts to dramatically narrow the permissible use of soft dollars by prescribing a laundry list of protected Yet the SEC is now considering further and unprotected services. interpretation, and its chairman has petitioned Congress for an outright repeal of the soft dollar safe harbor. This paper shows that soft dollars are an innovative and efficient form of economic organization that benefits fund investors. According to economic theory now well-established in antitrust law, the SEC's Guidance is hopelessly misguided. Were the Guidance to come under the scrutiny of a federal court, the SEC would very likely experience another in its recent string of embarrassing legal defeats.

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THE SEC'S 2006 SOFT DOLLAR GUIDANCE: LAW AND ECONOMICS

D. Bruce Johnsen

"[Soft dollars are] a witch's brew of hidden fees, conflicts of interest, and complexity . . . at odds with investors' best interests. . . . That's why I've asked Congress to consider legislation to repeal or at least substantially revise the 1975 law that provides a 'safe harbor' for soft dollars." – SEC Chairman Christopher Cox¹

I. INTRODUCTION

In the wake of the 2003 mutual fund scandals sparked by then New York Attorney General Eliot Spitzer,² the U.S. Securities and Exchange Commission (SEC) reexamined the regulation of conflicts of interest facing mutual fund advisers in their brokerage allocation decisions. Owing to periodic public allegations that it is a form of illicit kickback intended to subvert advisers' loyalty,³ soft dollar brokerage — or simply *soft dollars* — quickly became a target of SEC regulatory reform. Completely banning soft dollars was not one of the SEC's options because the practice is covered by a statutory safe harbor. Passed as part of the Securities Acts Amendments in May, 1975,⁴ for over 30 years Section 28(e)⁵ of the Securities Exchange Act (1934)(SEA) has

¹ Speech by SEC Chairman: Address to the National Italian-American Foundation by Chairman Christopher Cox, U.S. Securities and Exchange Commission, New York City, May 31, 2007.

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² See, e.g., Marcia Vickers, Mara Der Hovanesian, and Amy Borrus, *How to Make the SEC Look Stodgy*, BUSINESS WEEK, September 15, 2003, Pg. 40.

³ See, e.g., Speech by SEC Staff: Focus Areas in SEC Examinations of Investment Advisers, TOP 10 States News Service, March 20, 2008; Wall Street Roundup; 'Soft-dollar' deals draw SEC's ire, Los Angeles Times, June 1, 2007, Home Edition, Part C, Pg. 6; SEC OKs soft-dollar payment guidelines: Inflated commissions must relate to service, Chicago Tribune, July 13, 2006, Final Edition, ZONE C, Pg. 3; David F. Swensen, Invest at Your Own Risk, The New York Times, October 19, 2005, Late Edition – Final, Section A, Column 1, Editorial Desk, Pg. 21.

⁴ Securities Acts Amendments of 1975, Pub. L. No. 94-29, section 7, 89 Stat. 11 (codified as amended at *15 U.S.C. section 78k-1*(a)(2) (1988)).

⁵ 15 U.S.C. section 78bb(e) (1988) (as amended).

protected fund advisers, their portfolio managers, and other institutional money managers from criminal actions and civil suits for breach of fiduciary duty when they use client assets to pay more than the lowest available brokerage commission — to "pay up" — in exchange for "brokerage and research services." Barring an act of Congress, any regulatory reform by the SEC would have to come as a narrowing of its interpretation regarding which "brokerage and research services" qualify for safe harbor protection. 6

Having re-interpreted Section 28(e) four times over the years, often in contradictory ways, in May 2004 the SEC's requested that the National Association of Securities Dealers (NASD) form a task force to advise it on how to "improve the transparency of mutual fund portfolio transaction costs and distribution arrangements," with special emphasis on soft dollars. The NASD's *Report of the Mutual Fund Task Force, Soft Dollars and Portfolio Transaction Costs* appeared in November 2004, making various recommendations how Section 28(e)'s "brokerage and research services" might be interpreted more narrowly. After more than two years of investigation, in July 2006 the SEC issued its *Commission Guidance Regarding Client Commission Practices Under Section 28(e) of the Securities Exchange Act of 1934*. Owing to the intolerable conflicts of interest soft dollars are said to create, the 2006 Guidance narrowed their permissible use. Since then, SEC Chairman Cox has called on Congress to completely repeal Section 28(e). Alternatively, the SEC staff has proposed to issue further interpretive guidance and to mandate more detailed disclosure of soft dollar practices by fund advisers and other portfolio managers. 9

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⁶ The SEC's interpretation of Section 28(e)'s scope has little legal force beyond providing market participants with notice about what activity the SEC believes falls outside the safe harbor. Simply because an activity falls outside the safe harbor does not mean it is subject to criminal or civil action. *See Interpretation Concerning the Scope of Section 28(e)*, Exchange Act Release No. 23,170, 51 Fed. Reg. 16,004 (Apr. 30, 1986) [hereinafter *1986 Interpretive Release*]

⁷ (Nov. 11, 2004) [hereinafter *NASD Report*] (available at http://www.nasd.com/web/groups /rules-regs/documents/rules-regs/ nasdw-012356.pdf.)

⁸ Commission Guidance Regarding Client Commission Practices Under Section 28(e) of the Securities Exchange Act of 1934, Securities Exchange Act Release No. 54165 (July 24, 2006) [hereinafter 2006 Guidance or Guidance].

⁹ See Sara Hansard, Unforeseen Consequences of ADV Disclosures Cause Worry; Investors Could Wind up Swamped, they Say, Investment News, February 18, 2008, p. 3; Cox's Soft-Dollar Fight Becomes a Lonely Battle: SEC Sets it Sights Much Lower with Proposal for Added Guidance, Investment News, February 25, 2008, p. 42.

The SEC's 2006 Guidance is a laundry list of legally arbitrary and economically irrelevant formalisms bordering on the disingenuous. Among other things, it stretches the plain meaning of language, directly contradicts the terms of the statute, ignores the SEC's own prior recitations of Congressional intent, and cites specific provisions of agency and trust law that purport to favor a narrow interpretation of "brokerage and research services" while disregarding other provisions that directly contradict such an interpretation. What is more, it completely ignores a substantial body of economic theory widely embraced by antitrust regulators and federal courts — primarily transaction cost economics — that strongly suggests paying up for "experience goods" such as institutional portfolio brokerage is quite rational and, more likely than not, beneficial to investors. What emerges is the picture of a federal agency so desperate to appear vigilante after being trumped by Eliot Spitzer that it has abandoned any pretense of economic literacy. Were the 2006 Guidance to come under the direct scrutiny of a federal court, the SEC would very likely experience another in its recent string of embarrassing legal defeats. 12

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¹⁰ In May, 2007, SEC Chairman Christopher Cox sent a pointed letter to Senate Banking Committee Chairman Christopher Dodd (D., Conn.) and House Financial Services Committee Chairman Barney Frank (D., Mass.) urging Congress to either ban soft dollar brokerage or regulate it to the vanishing point. See Judith Burns, Cox Vows to Penetrate Soft-Dollar 'Fog'; SEC Chairman Urges Congress to Eliminate Fee-Research Bundling, Wall Street Journal (Eastern edition), May 31, 2007, p. C.15. In late June, Chairman Frank's committee took Commissioner Cox's testimony in the presence of the other four SEC commissioners on this and other investor issues. Testimony Concerning A Review of Investor Protection and Market Oversight with the Five Commissioners of the Securities and Exchange Commission. Witness List: Christopher Cox, Chairman, Paul S. Atkins, Commissioner, Roel C. Campos, Commissioner, Annette L. Nazareth, Commissioner, Kathleen L. Casey, Commissioner, June 26, 2007: "... [T]he SEC has intensified its focus on "soft dollars" that brokers receive from mutual funds to pay for things other than executing brokerage transactions. Recently, the Commission acted unanimously to publish interpretive guidance that clarifies that money managers may only use soft dollars to pay for eligible brokerage and research services — and not for such extraneous expenses as membership dues, professional licensing fees, office rent, carpeting, and even entertainment and travel expenses. At the same time, we are examining the adequacy of current accounting and disclosure for soft dollars." See also Statement of Chairman Christopher Cox by Chairman Christopher Cox, U.S. Securities & Exchange Commission, before the U.S. Senate Committee on Banking, Housing and Urban Affairs, July 31, 2007: ". . . I have . . . called on Congress to consider the future of the so-called "soft dollars" that brokers receive from mutual funds to pay for things other than executing brokerage transactions."

¹¹ Philip Nelson, *Information and Consumer Behavior*, 78 J.P.E. 311 (1970). In contrast to experience goods, Nelson characterizes as "search" goods those that can be easily assessed at the point of sale. In fact, there probably are no pure search goods, though some goods no doubt require more experience to evaluate than others.

¹² See SEC v. Chamber of Commerce I, 412 F.3d 133 (2005) (SEC rule requiring investment companies boards to consist of 75% outside directors and an outside chairman as a condition for reliance on other

Relying largely on transaction cost economics, ¹³ this paper provides a careful analysis of the SEC's *2006 Guidance* to determine its likely effect on investor welfare. ¹⁴ There is little doubt soft dollars engender conflicts of interest, and that most mutual fund investors lack actual knowledge of these conflicts or — owing to the collective action problem they face — the wherewithal to directly monitor their managers and brokers. ¹⁵ Under the common law of agency, however, conflicts of interest reflect merely the potential for agent self-dealing. They are inevitable in a specialized intermediary economy and only rarely result in actual agent self-dealing or other forms of disloyalty. ¹⁶

exemptions found in violation of the Investment Company Act and the Administrative Procedures Act for failing to determine the costs of the two conditions and to address any proposed alternative to the independent chair condition); SEC v. Chamber of Commerce II, 443 F.3d 890 (2006) (SEC rule requiring investment companies boards to consist of 75% outside directors and an outside chairman as a condition for reliance on other exemptions found in violation of the Investment Company Act and the Administrative Procedures Act for "relying on materials not in the rulemaking record without affording an opportunity for public comment, to the prejudice of the Chamber"); Goldstein v. SEC, 451 F.3d 873 (2006) (SEC's hedge fund registration rule is arbitrary, vacated and remanded); and Financial Planning Associations v. SEC, 482 F.3d 481 (2007) (SEC exceeded its authority when it exempted from the Investment Advisers Act brokers who receive special compensation for giving investment advice).

Pioneered by 1991 Nobel Prize winning economist Ronald H. Coase, transaction cost economics has been likened to Einsteinian physics in its revolutionary influence and power to explain how people organize their economic affairs. Whether applied to the marketplace, the business firm, or the family, transaction cost economics introduces the equivalent of friction into the neoclassical model of impersonal exchange of goods whose quality is easily evaluated at the moment trade occurs. See, e.g., Johnnie L. Roberts and Richard Gibson, 'Friction' Theorist Wins Economics Nobel, Wall Street Journal, Oct. 16, 1991, Section B, page 1. R.H. Coase's The Problem of Social Costs, 3 J.L. & ECON. 1 (1960), is no doubt the most cited article in all of economics. Together with Coase's The Nature of the Firm, 4 Economica 386 (1937), the impact has been remarkable, as reflected in a virtual revolution in antitrust¹³ and other areas of law. Most recently, see Leegin Creative Leather Products v. PSKS, Inc, 127 S. Ct. 2705 (2007), relying on Coase's work to reverse a near-100-year Sherman Act precedent treating minimum resale price maintenance as illegal per se. See, generally, Richard A. Posner, ECONOMIC ANALYSIS OF LAW (7th ed, 2007), as well as any issue of THE JOURNAL OF LAW & ECONOMICS.

¹⁴ My analysis relies specifically on two seminal works in transaction cost economics: Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305 (1976) and Benjamin Klein and Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 JOURNAL OF POLITICAL ECONOMY 615 (1981). Based on a recent analysis of citations, these articles ranked third and 59th among all articles published in 41 prominent economics journals between 1970 and 2002. E. Han Kim, Adair Morse, and Luigi Zingales, *What Has Mattered to Economics Since 1970* (Sept. 2006), NBER Working Paper No. W12526. Available at SSRN: http://ssrn.com/abstract=931371. Coase's seminal works antedated the database used for this study.

¹⁵ This not to say investors collectively, as embodied in "the market," are incapable of effectively monitoring managers. See Eugene F. Fama and Michael C. Jensen, *Agency Problems and Residual Claims*, 26 J. LAW & ECON. 327 (1983).

¹⁶ Under agency law, a conflict of interest exists when the agent's interests are adverse to the principal, but a breach of loyalty occurs only if the agent takes action adverse to the principal without the principal's knowledge. The American Law Institute, Restatement of the Law, Second, Agency (1958) §§ 23, 389.

Despite the lofty pronouncements one hears from securities regulators and financial market commentators, ¹⁷ once transaction cost economics is considered the elimination of conflicts of interest is an impossible standard for protecting investors. In a competitive marketplace, innovative business practices that give rise to persistent conflicts of interest on one dimension of a transaction, no matter how unusual or puzzling, often resolve or ameliorate more serious countervailing conflicts on other dimensions. Otherwise, the parties — brokers, advisers, *and* investors — would find it in their joint interest to eliminate them to the extent the cost of transacting allows. After all, the prospect of shared gains from trade is what brings the parties together to begin with.

It would be a mistake to summarily prohibit innovative business practices in the interest of investor protection simply because they give rise to conflicts of interest. The best that can be hoped for under such circumstances is that regulation is structured to reduce the transaction costs market participants face prospecting for better ways to avoid actual agent self-dealing in their inexorable pursuit of wealth-enhancing trade. Properly balancing conflicts of interest is a task best left to portfolio managers, fund advisers, and ultimately to fund directors subject to the requirement that truly material conflicts must be disclosed.

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¹⁷ Weinberg, Pensions, Pols, Payola, Forbes Vol. 179, (March 12, 2007), p. 42 (Richard Moore, now Treasurer of North Carolina, and a "man [who] has built his career crusading against conflicts of interest on Wall Street" stated before the U.S. Senate Commerce Committee in 2002 "We are demanding that broker/dealers and money managers eliminate actual and potential conflict of interest from the way they pay analysts and conduct their affairs."); Lou Dobbs, The Dobbs Report: Reform Wall Street; Usually a foe of regulation, I think the government may need to act. Money (July, 2002), p. 65 ("In my view, the Merrill settlement did not produce the kind of meaningful change needed to eliminate conflicts of interest and restore investor confidence."); U.S. Securities and Exchange Commission, Speech by SEC Chairman William H. Donaldson: Closing Statement at Open Commission Meeting (Washington, D.C.: August 18, 2004)("The two proposals the Commission approved today will help to further eliminate conflicts of interest that can compromise best execution decisions in fund portfolio transactions "); Simon Threadgold, Brokers: Vertical Integration; A Level Playing Field, Post Magazine (February 3, 2005), p. 26 ("The FSA also insists that brokers must operate in a way that eliminates conflicts of interest"); U.S. Securities and Exchange Commission, Speech by SEC Staff: Paul Roye, Remarks before the Mutual Fund Directors Forum Fifth Annual Policy Conference: Critical Issues for Investment Company Directors, (Washington, D.C.: February 17, 2005)("I hope . . . your fund groups and their service providers have addressed or eliminated conflicts of interest and practices that can compromise investor interests."); U.S. Securities and Exchange Commission, Speech by SEC Commissioner Roel C. Campos: Remarks Before the Mutual Fund Directors Forum First Annual Directors Institute (Coral Gables, Florida: February 28, 2007) ("government regulation in the U.S. and around the world employs as a critical part of their programs [sic] governance rules to protect investors and eliminate conflicts. . . . the purpose [of the fund governance provisions] is not to improve performance, but to eliminate a glaring conflict of interest.").

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With these thoughts in mind, this paper proceeds as follows. To lay a foundation, Part II briefly describes the organization of the mutual fund and institutional brokerage industries, paying special attention to existing principal-agent relations. Part III provides a history of soft dollar regulation, culminating with a detailed look at the SEC's 2006 Guidance. Focusing on the economics of transaction costs, Part IV shows how soft dollars work to assure brokerage quality and efficiently subsidize investment research by fund advisers. Part V assesses the likely effect of the SEC's 2006 Guidance on investor welfare in light of the economic theory set out in Part IV. Contrary to accepted wisdom, recent empirical work suggests soft dollars limit conflicts of interest by better aligning fund managers and their executing brokers' incentives to increase portfolio returns. ¹⁸ In this framework, the "net benefit test" determines which "brokerage and research services" should be covered by the safe harbor. Part VI provides concluding comments and makes a specific proposal for how the SEC might usefully reformulate its costbenefit analysis for rulemaking under the '40 Act.

II. INDUSTRY ORGANIZATION

Mutual funds are investment pools organized as corporations or trusts under state law. To raise capital the fund issues shares to the investing public, with the proceeds placed in a more or less diversified portfolio of risky assets (primarily corporate stocks and bonds, government debt, etc.) and cash to which shareholders have a pro rata claim. The unique thing about mutual funds is that they stand ready to issue and redeem shares at the daily net asset value of the fund next computed based on the reported prices of the underlying portfolio securities. ¹⁹ For this reason they are also known as open-end funds. 20 Much of Americans' savings are held by mutual funds and managed by advisory

¹⁸ Stephen M. Horan and D. Bruce Johnsen, Can Third-Party Payments Benefit the Principal: The Case of Soft Dollar Brokerage, Intl. Rev. Law & Econ. (forthcoming, 2008).

¹⁹ Pricing of Redeemable Securities for Distribution, Redemption and Repurchase, Investment Company Act Release No. 5519, 33 FR 16331 (1968), at 16.

²⁰ In contrast, closed-end funds issue shares once and do not offer shareholders a redemption option. To cash out, a shareholder must sell his or her shares to other investors in the market.

firms regulated under the Investment Company Act (ICA, 1940)²¹ and the Investment Advisers Act (IAA, 1940)²² (collectively known as "the '40 Act").

The ICA formally mandates that the adviser to a mutual fund be a vertically separate firm. The adviser provides management services through a long-term contract periodically approved by the fund's board of directors or a majority of fund shareholders.²³ In reality, however, the adviser normally creates and promotes the fund, and fund boards almost invariably renew advisory contracts. What is more, even though Section 15(a) of the ICA prohibits direct assignment of the advisory contract, Section 15(f) allows advisory firm owners to profit from a sale of control in the advisory firm that indirectly assigns the advisory contract. The relationship between the adviser and the fund therefore lies somewhere in an economic netherworld between vertical integration (an extended firm) and long-term contract (market exchange).²⁴

Advisory services include record keeping, custody of shares, and other ministerial functions, but in an actively-managed mutual fund they consist most importantly of portfolio management, normally provided by an employee of the advisory firm. ²⁵ As an agent for the fund, an active manager's primary charge is to hold an efficiently diversified portfolio, to use his best efforts to perform or acquire research to identify mispriced securities, and to buy or sell those securities to make a profit for the portfolio before the market fully corrects the pricing error. Once having identified a potentially profitable trade, the manager traditionally hires an institutional securities broker to "execute" it. In selecting between brokers, the manager has a fiduciary duty of "best execution" to the fund.

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²¹ 15 U.S.C. Section 80a-1 through 80a-64 (1940) [hereinafter ICA].

²² 15 U.S.C. Section 80b-1 through 80b-21 (1940) [hereinafter IAA].

²³ 15 U.S.C. Section 80a-15 (1940).

²⁴ See R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937) and Benjamin Klein, Robert G. Crawford, and Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 JOURNAL OF LAW & ECONOMICS 21 297 (1978).

²⁵ Mutual funds can be divided into active and passive styles. An index fund attempts to duplicate a specific benchmark such as the Standard & Poor's (S&P) 500 Index and therefore involves little in the way of active management. Most actively managed mutual funds are part of a family of funds that contract for management services with a central advisory firm. Each separate fund has one or more portfolio managers, who are employees of the advisory firm (or possibly independent contractors), each with specific responsibilities and separately-negotiated compensation paid by the adviser. In a stand-alone fund the adviser and the manager may be one and the same. For simplicity, I use the term "adviser" and "manager" interchangeably unless the context requires greater care.

The executing broker is also an agent of the fund. Like the manager, he is subject to a fiduciary duty of best execution of portfolio trades. This requires him to search for willing sellers or buyers and to contract with them for the purchase or sale of the security on the best possible terms for the benefit of the fund.²⁶ In consideration, the broker typically receives a commission averaging five or six cents per share.²⁷ Although the manger may be able to trade through a proprietary network or with a discount broker for as little as a penny a share, institutional brokers provide the benefit of specialization, access to a variety of securities exchanges and other exclusive trading networks, and, perhaps most importantly, anonymity. There is little doubt these specialized agents effectively reduce the total costs of transacting portfolio securities in the vast majority of agency trades.²⁸

Because brokerage commissions are treated as capital items and included in the price basis of portfolio securities for tax reasons, fund shareholders implicitly pay them in the form of lower net returns.²⁹ Outsiders to the world of institutional securities brokerage are often shocked to hear brokers routinely provide fund advisory firms or their portfolio managers with benefits as a partial quid pro quo for their promise of premium commission payments on future portfolio trades. Soft dollars are the primary means by which brokers have provided such benefits.

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²⁶ For a statement of the adviser's duty of best execution *See 1986 Interpretive Release* at n. 35 *et seq...* For economic analyses of the broker's duty of best execution, see Kenneth D. Garbade and William L. Silber, Best Execution in Securities Markets: An Application of Signaling and Agency Theory, 37 J. FIN. 493 (1982) and Jonathan R. Macey and Maureen O'Hara, The Law and Economics of Best Execution, 6 J.F.I 188 (1997).

²⁷ Rich Blake, *Misdirected Brokerage*, INSTITUTIONAL INVESTOR (June, 2003), at 47, 48. In 2003, the SEC reported that institutional commissions ranged from as low as one cent per share to as high as 12 cents per share, with an average of five to six cents per share. *See Concept Release: Request for Comments on Measures to Improve Disclosure of Mutual Fund Transaction Costs*, Investment Company Act Release No. 26313 (Dec. 18, 2003), 68 Fed. Reg. 74819 (Dec. 24, 2003), at 74820-21 [hereinafter *Concept Release*]. There is no doubt commission rates have gradually declined over time and continue to do so.

²⁸ Total transaction costs include the brokerage commission, which is an out-of-pocket expense, but it also includes any adverse change in the price (whether bid or ask) at which the broker sells or buys a security between the moment the manager decides to trade and the moment the trade is fully executed — so-called "price impact." Price impact is a difficult-to-observe opportunity cost rather than an out-of-pocket expense. See *Concept Release* and discussion *infra*, at?

²⁹ Brokerage commissions are added into the price basis of a portfolio security when it is purchased and netted out when it is sold. Gross investment returns are therefore net of commissions (and other transaction costs).

To understand how soft dollars work, Figure 1 illustrates relations between the parties. P represents the mutual fund's portfolio of securities, whose beneficial owners consist of any number of dispersed shareholders, S. The fund enters into a contract in which it promises to pay the adviser/manager, M, a fee consisting of a periodic share of the portfolio's net asset value, say 75 basis points per year. In exchange the manager provides active management through an employee-manager, whose task is to provide effort identifying profitable trading opportunities. Having identified a profitable trade, the manager hires a broker, B, to execute it in exchange for commission payments on completion.

In a typical soft dollar arrangement, the broker provides the manager with credits, oftentimes *up front*, to pay a specific dollar amount of his research bill with independent research vendors, V. In exchange, the manager agrees to send the broker future trades at premium commission rates. By way of example, the broker might provide the manager with \$60,000 in research credits if the adviser agrees to send the broker enough trades over the coming months at seven cents per share to generate \$140,000 in brokerage commissions, clearly more than necessary to cover the lowest available commission or the broker's marginal execution cost. In this sense the manager is said to "pay up" for research bundled into the brokerage commission. Historically, once having entered into this agreement the manager orders any of a large number of research products — fundamental analyses, hardware, software, subscriptions, databases, etc. — from independent, or *third-party*, vendors, who in turn receive payment from the broker. If all goes as planned, the manager places the promised trades with the broker at the agreed premium commission rate. If not, he can terminate the broker at any time with no legal obligation to make the promised trades.

Courts and regulators have long regarded brokerage payments as assets of the fund, ³² so-called "client commissions." Managers' use of client commissions for soft

³⁰ A basis point is one one-hundredth of a percentage point.

³¹ This flow of third-party research is shown by the horizontal arrow from V to M in Figure 1, and the broker's payments to vendors are shown by the vertical arrow from B to V.

³² See, e.g., Moses v. Burgin. 445 F.2d 369 (1971); Tannenbaum v. Zeller, 552 F.2d 402 (1976); Fogel v. Chestnutt, 533 F.2d 731 (1975); *Prohibition on the Use of Brokerage Commissions To Finance Distribution*, Investment Company Act Release No. 26591, 17 CFR Part 270 (2004); and 2006 Guidance.

dollars has been heavily criticized as a conflict of interest that may lead the manager to favor itself over fund investors, a situation the '40 Act was generally designed to prevent.³⁴ The prospect of unjust enrichment is said to malign advisors' incentives, leading them to engage in too much trading, to use too much research, and to select brokers to generate research credits rather than to enhance execution quality.³⁵ The picture that emerges is one in which the entire commission premium is a net drag on fund performance, reducing investor returns dollar for dollar.

It bears emphasizing that none of these criticisms identify a conflict of interest unique to the manager's receipt of *independent* research through soft dollar arrangements. Instead, they identify a conflict inherent in bundling the costs of research and execution together into premium brokerage commissions. All institutional brokers do that.³⁶ Soft dollar brokerage constitutes only one form of bundling. Since time out of mind, full-service brokers have provided investment managers with proprietary in-house research and other brokerage services bundled together with execution as part of an informal, long-term relationship. Indeed, this practice predominates to this day, as illustrated by the diagonal arrow in Figure 1. The main difference between these two forms of institutional brokerage is that proprietary research is generated within the brokerage firm and is accounted for only informally during the long course of a trading relationship, while independent research is transacted in the market for a price and provided in arm's-length transactions by independent research vendors. That soft dollars foster

³³ See 2006 Guidance, at n. 3. Discussed infra.

³⁴ Section 1 of the Act, titled "Findings and Declaration of Policy," states in part that "investment companies are affected with a national public interest in that, . . . such companies are media for the investment in the national economy of a substantial part of the national savings and may have a vital effect upon the flow of such savings into the capital markets [I]t is hereby declared that the national public interest and the interest of investors are adversely affected . . . when investment companies are organized, operated, managed, or their portfolio securities are selected, in the interest of directors, officers, investment advisers, . . . brokers, or dealers, . . . rather than in the interest of all classes of such companies' security holders." 15 USCS § 80a-1 (2005).

³⁵ See, e.g., D. Bruce Johnsen, *Property Rights to Investment Research: The Agency Costs of Soft Dollar Brokerage*, 11 YALE J. ON REG. 75 (1994); See 2006 Guidance.

³⁶ The exceptions consist of discount brokers and proprietary trading networks, which normally charge an "execution-only" brokerage commission and provide little in the way of bundled services, although that may be changing. Although proprietary networks are legally classified as brokers subject to registration under the Securities Exchange Act (1934), they operate through protocols that leave virtually all trading discretion to the manager. Instinet, LLC., is one example of a proprietary trading network. Institutional portfolio managers are said to trade only sporadically, if at all, through discount brokers, who tend to focus on retail clients.

specialization by separate, vertically disintegrated firms and formally meter research is hardly a reason to ban them or subject them to onerous regulation. Accordingly, the central policy question we address is whether the widespread practice of bundling the cost of research into premium commissions benefits or harms portfolio investors compared to a world in which managers are required to pay for all research out of their own pockets.

III. A Brief History of Soft Dollar Regulation³⁷

A. Vertical Dis-Integration of Investment Research and the Fall of Fixed Commissions

There is little doubt the deregulation of fixed commissions in May 1975 represented a tectonic shift for the U.S. securities industry whose reverberations are still being felt to this day.³⁸ From its inception in 1792, the association of stockbrokers and dealers known until recently as the New York Stock Exchange (NYSE) (now NYSE Euronext) operated under a system of fixed minimum commissions that, according to many, bore conspicuous resemblance to a naked price fixing cartel.³⁹ Until 1934, the NYSE's authority to impose fixed commissions derived from a private agreement between its members and an agnostic antitrust policy toward securities exchanges.⁴⁰ With passage of the SEA and the creation of the SEC in 1934, this authority came by way

³⁷ To a large extent, the material in Sub-section A and Sub-part B1 of this section summarize portions of D. Bruce Johnsen, Property Rights to Investment Research: The Agency Costs of Soft Dollar Brokerage, 11 YALE J. ON REG. 75 (1994), supra n. ?. As this material merely provides background, I have chosen to keep citations to a minimum. Readers interested in detailed citations can find them in the original.

³⁸ As part of the 1975 Securities Acts Amendments, Congress mandated that the SEC implement a "national market system" for securities trading. In 2005 The SEC released Regulation NMS with the hope of achieving this goal thirty years later. See Regulation NMS, Securities Act Release No. 51808, 17 CFR PARTS 200, 201, 230, 240, 242, 249, and 270 (2005).

³⁹ Hans R. Stoll, Regulation of Securities Markets: An Examination of the Effects of Increased COMPETITION (1971); Gregg A. Jarrell, Change at the Exchange: The Causes and Effects of Deregulation, 27 J.L. & ECON, 273, (1984), at 273; Jonathan R. Macey & David D. Haddock, Shirking at the SEC: The Failure of the National Market System, 1985 U. Ill. L. Rev. 315, 316-17 (1985); but see J. Harold Mulherin et al., Prices are Property: The Organization of Financial Exchanges from a Transaction Cost Perspective, 34 J.L. & Econ. 591, 596 (1991).

⁴⁰ See U.S. v. Chicago Board of Trade, 246 U.S. 231 (1918).

of then Section 19(b) of the Act.⁴¹ Under what is now regarded as "the old fixed commission system," the small number of full-service brokerage houses that dominated the NYSE produced most of the investment research, largely in the form of proprietary conclusions as to mispriced securities — so called "stock picks" — and analyst reports best seen as outputs in the investment research process. They then bundled the costs of proprietary research together with execution of the associated securities trades into a single commission and allocated them to favored clients based, in part, on the amount of commission business the client did with the firm.

Prior to passage of the ICA in 1940, most securities were held and traded by private investors through individual brokerage-house accounts. With passage of the ICA, securities ownership by mutual funds and other institutional portfolios began to grow. Between 1940 and 1975, total domestic mutual funds assets grew from approximately \$450 million to approximately \$46 billion. Private and public pension funds and other institutional portfolios experienced similar growth. Moreover, the share of outstanding U.S. corporate common stock held by these institutions increased to over 33% in 1980.

Emerging opportunities in investment research brought on by the ever accelerating "electronics revolution" helped make the growth of institutional portfolios possible. Fund advisers and other portfolio managers gradually developed the wherewithal to avoid the favoritism game played by full-service brokerage houses, allowing them to vertically dis-integrate investment research from securities trading. Instead of relying on these brokers' proprietary in-house stock picks, they increasingly began to combine generic inputs in the investment research process — computer software, hardware, the latest price quotes, databases, research reports, etc., having limited intrinsic information content — with their own labor effort to generate stock picks internally.

⁴¹ 15 U.S.C. § 78s(b)(9) (repealed 1975)..

⁴² Investment Company Institute, MUTUAL FUND FACT BOOK (2005), at 71 (available at http://www.ici.org/stats/mf/2006_factbook.pdf).

⁴³ Carolyn K. Brancato & Patrick A. Gaughan, *The Institutional Investor Project* (Sept. 1991) (unpublished working paper, on file with the Center for Law and Economic Studies, Columbia University School of Law) at Table 9.

Possibly owing to scale economies in securities trading, institutional portfolio managers tended to trade in relatively large blocks, for which per share execution costs are thought to have been substantially lower than the 40 cent minimum commission then prevailing. 44 Large-block trading by institutions began to dominate the NYSE and other trading networks. As institutional managers became less dependent on Wall Street's inhouse investment research, established brokers, unable to compete for lucrative institutional business by cutting commissions, predictably turned to nonprice competition in the form of various commission rebates, colorfully referred to as "give-ups" and "reciprocals." These rebates allowed managers to more or less "recapture," for the benefit of the portfolio, the excess portion of the commission above the broker's cost of execution. In this fitful regulatory environment, some methods of recapture proved fleeting, while others proved sustainable but fraught with conflicts of interest. Reciprocal commission recapture consisted primarily of in-house investment research provided by full-service brokers in exchange for future commission business. As time passed, managers continued to rely on full-service brokers for bundled-in research but increasingly turned to independent research from third-party vendors. As deregulation approached, research rebates accounted for roughly 60 percent of the commission on institutional-sized orders.45

Reciprocal commission recapture allowed mutual funds to realize much of the benefits of scale economies in block trading by paying dramatically lower net commissions. The trend toward vertical integration further eroded the NYSE's grip on the industry and resulted in a series of SEC rulings prescribing negotiated commissions on the portion of an order above a set minimum dollar value. Over the years the SEC successively lowered this minimum until Congress made commissions entirely negotiable in May 1975 as part of the Securities Acts Amendments to the SEA.⁴⁶ Commissions fell dramatically and trading volume surged.

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⁴⁴ Philip Maher, *Why Wall Street Can't Bank on Soft Dollars*, Investment Dealers' Dig., Oct. 23, 1989, at 19; see also Gregg A. Jarrell, *Change at the Exchange: The Causes and Effects of Deregulation*, 27 J.L. & ECON. 273, (1984), at 277.

⁴⁵ Jarrell, at 279.

⁴⁶ Securities Acts Amendments of 1975, Pub. L. No. 94-29, section 7, 89 Stat. 11 (codified as amended at 15 U.S.C. section 78k-1(a)(2) (1988)). This legislation amended section 19(b) of the Exchange Act with

B. The Rise of Soft Dollar Brokerage

With deregulation of fixed commissions many NYSE member firms suffered a sobering contraction. Commissions immediately declined to between five and ten cents per share. 47 In spite of a tremendous increase in trading volume, NYSE seat prices fell in value by roughly 50%. Although, by any reasonable standard, industrial concentration remained fairly low, the brokerage industry experienced an alarming merger wave. Established full-service brokers began to diversify away from the trading of common stocks. Hardest hit were the medium-sized firms that had specialized in providing in-house research to institutional clients. Many of them left the industry. Helping to drive lower commissions were the many new entrants to the industry — socalled "execution-only" brokers — that had little or no in-house research capacity. Yet, curiously, freely-negotiated commissions failed to completely eliminate bundling. Though at much lower commission rates than before, most institutional brokers continued to bundle the cost of research — both proprietary and third-party — and portfolio trades into a single commission. The provision of third-party research in this way came to be known as soft dollar brokerage.

In contrast to the brokerage industry, the mutual fund industry flourished. Since then, with a minor exception in 2002, mutual fund assets have grown continuously to \$8.9 trillion in 2005, a trend no doubt furthered by the advent of tax deferred retirement plans.⁴⁹ Along with the downward trend in commissions came a dramatic rise in portfolio turnover. The available evidence indicates that a sustained increase in soft dollar use accompanied the increase in turnover. Several commentators have estimated

section 6(e) and also prompted the SEC to adopt Rule 19b-3. Adoption of Rule 19b-3, Exchange Act Release No. 11,203, [1974-1975 Transfer Binder] Fed. Sec. L. Rep. (CCH) paragraph 80,067 (Jan. 23, 1975). Section 19(b) was the original source of the SEC's authority to review commissions, while section 6(e) specifically prohibited fixed commissions. Rule 19b-3, eliminating fixed commissions, was adopted by the SEC in anticipation of congressional passage of section 6(e). See Gordon v. New York Stock Exch., 422 U.S. (1975), at 675.

⁴⁸ Jarrell, at 294-97.

⁴⁷ Maher, at 19; see also Jarrell, at 277.

⁴⁹ Investment Company Institute Factbook, available at http://www.icifactbook.org/fb data.html#section1.

that by 1990 between 30% and 50% of all trades on the NYSE involved the provision of third-party research pursuant to some form of bundling arrangement, ⁵⁰ with the annual soft dollar component of brokerage commissions thought to be in excess of \$1 billion in 1989. Soft dollar use is now commonplace in financial markets throughout the developed world, whether by mutual fund advisers or other institutional portfolio managers. In the U.S., alone, they accounted for as much as half the \$12.7 billion in brokerage commissions institutional portfolios paid in 2002.⁵¹

The growth in soft dollar use was apparently anticipated by Congress. In addition to providing for freely negotiated commissions, the 1975 amendments added section 28(e), the so-called "paying up" amendment, to the SEA. Congress designed Section 28(e) as a safe harbor to allay widespread concern by investment advisers that their state common law and statutory fiduciary duties of best execution, and more likely criminal sanctions under the ICA for the accepting outside compensation, would limit them to paying only the lowest available commissions for portfolio brokerage regardless of execution quality or the value of any research services they received. Section 28(e) provides, in relevant part:

(1) No person [who exercises] investment discretion with respect to an account shall be deemed to have acted unlawfully or to have breached a fiduciary duty under State or Federal law . . . solely by reason of having caused the account to pay a member of an exchange, broker, or dealer an amount of commission . . . in excess of the amount of commission another member of an exchange . . . would have charged . . . if such person determined in good faith that it was reasonable in relation to the value of the brokerage and research services provided by such

⁵⁰ Kevin G. Salwen, *Brokerage Firms Slam Wall Street's Soft Dollar Deals*, Wall St. J., June 22, 1990, at C1; see also Soft Commissions: Hard Nuts to Crack, Economist, Sept. 16, 1989, at 87.

⁵¹ John Hechinger, *MFS Ends 'Soft Dollar' Payments on Concerns over Ethics*, Wall Street Journal, March 16, 2004, at C1. Hechinger cites Greenwich Associates, Inc., for this figure, while other sources relying on Greenwich report that soft dollars amounted to \$1.24 billion in 2003 and accounted for 11 percent of total institutional commission payments. The discrepancy no doubt results from imprecision over how to define soft dollars. The former figure probably includes the value of all research and other services bundled into institutional commission payments, while the latter probably refers exclusively to research supplied by third-party research vendors. See discussion, *infra* at?.

⁵² 2006 Guidance, at 41980-81. Industry concern over paying up was no doubt sparked by three celebrated fiduciary suits involving commission recapture that began in the late 1960s. See Moses v. Burgin, 445 F.2d 369 (1971); Fogel v. Chestnutt, 533 F.2d 731 (1975); and Tannenbaum v. Zeller, 552 F.2d 402 (1976); discussed more fully *infra* at?

member, broker, or dealer, viewed in terms of either that particular transaction or his overall responsibilities with respect to the accounts as to which he exercises investment discretion. . . .

- (2) A person exercising investment discretion with respect to an account shall make such disclosure of his policies and practices with respect to commissions that will be paid for effecting securities transactions, at such times and in such manner, as the appropriate regulatory agency, by rule, may prescribe as necessary or appropriate in the public interest or for the protection of investors.
- (3) For purposes of this subsection a person provides brokerage and research services insofar as he
 - (A) furnishes advice, either directly or through publications or writings, as to the value of securities, the advisability of investing in, purchasing, or selling securities, and the availability of securities or purchasers or sellers of securities;
 - (B) furnishes analyses and reports concerning issuers, industries, securities, economic factors and trends, portfolio strategy, and the performance of accounts; or
 - (C) effects securities transactions and performs functions incidental thereto (such as clearance, settlement, and custody) or required in connection therewith by rules of the Commission or a self-regulatory organization of which such person is a member ⁵³

Although Congress intended Section 28(e) to provide broad protection to fund advisers or their managers in allocating commissions business in exchange for brokerage and research services, any formal contractual commitment to patronize a particular broker necessarily falls outside its safe harbor. Exclusive dealing contracts are surely prohibited, but even in the absence of a formal agreement any fund adviser found to have placed an excessive share of his trades with a single broker risks legal action by the SEC and fund shareholders for breach of its fiduciary duty of best execution. The exact scope of section 28(e)'s protection of brokerage and research services has evolved over the years with a number of SEC no-action letters, cases, and administrative proceedings.

⁵³ 15 U.S.C. section 78bb(e) (1988) (as amended).

1. The Era of Industry Capture, More or Less

During much of its first 63 years, mutual fund regulation under the `40 Act was largely an administered process. The SEC worked cooperatively with prominent members of the industry to address problems as they arose through various exemptions, no-action letters, interpretations, and rulemakings. This should come as no surprise given that the fund industry played a heavy role in drafting the `40 Act. ⁵⁴ Standard capture by prominent advisory firms appears to have been at least a partial driver of the SEC's regulatory agenda under the `40 Act, ⁵⁵ with large investment institutions (so-called "buy-side" firms) gradually wresting political power from broker-dealers (so-called "sell-side" firms) and other exchange interests in the march toward commission deregulation. ⁵⁶

A notable artifact of industry capture is the dearth of `40 Act cases litigated in federal court compared to, for example, the many civil and criminal antitrust cases brought under the Sherman and Clayton Acts. By giving the SEC blanket exemptive authority from any of its provisions,⁵⁷ the ICA has ensured that few disputes end up in litigation. The SEC is free to exempt from regulation those parties likely to succeed in court if the exemption were to be denied, while those with weak cases can be denied an exemption without fear of litigation.⁵⁸ The implicit bargain the industry cut may have been relief from the plaintiff's bar in exchange for detailed regulatory oversight from the SEC.

One of the SEC's first rulings under section 28(e) was a 1976 interpretive release finding that the safe harbor applies only to research products that are not "readily and

⁵⁴ See Mathew P. Fink, *The Revenue Act of 1936: The Most Important Event in the History of the Mutual Fund Industry*, Financial History (Fall 2005), at 16-19.

⁵⁵ George J. Stigler, *The Theory of Economic Regulation*, 2 Bell J. Econ. & Mgmt. Sci. 3 (1971); Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J. Law & Econ. 211 (1976): Gary Becker, A *Theory of Competition Among Pressure Groups for Political Influence*, 98 Q. J. Econ. 371 (1983)

⁵⁶ See Johnsen, Yale Jnl. On Regulation (1994).

⁵⁷ See ICA, Section 6(c), 15 U.S.C 80a-6.

⁵⁸ Very recently this state of affairs was revealed when Philip Goldstein, after successfully challenging the SEC's hedge fund registration rule, threatened the SEC with litigation if his fund was not given an exemption from portfolio disclosure under SEA 13(f). See Business Week, Sept. 12, 2006: at http://www.businessweek.com/investor/content/sep2006/pi20060913_356291.htm.

customarily available . . . to the general public on a commercial basis." For many years this ruling nominally prohibited managers from receiving basic generic research inputs such as newspapers, magazines and periodicals, directories, computer facilities and software, government publications, electronic calculators, quotation equipment, office equipment including private direct telephone lines, airline tickets to conferences or to visit corporate managers, office furniture and business supplies, and other items helpful for effective portfolio management. By its terms, the interpretation favored the proprietary in-house research traditionally produced by full-service brokers in the form of stock picks and analyst reports.

In response, and no doubt with the help of evolving technology, market participants naturally begun packaging generic research inputs into more complex products and services to qualify for the not "readily and customarily available . . . to the general public" standard. Where there is value to be added, and hence money to be made — and shared — market participants are quite able to innovate while walking a legal In 1980, the SEC issued its Report of Investigation in the Matter of Investment Information, Inc. . . . condemning what appears to have been just such an arrangement. 60 Investment Information, Inc. (III) was a proprietary service offered to portfolio managers who agreed to send their commission business to any of a select group of "execution-only" brokers, as designated by III. Participating brokers retained half of their commission revenue and remitted the remainder to III. In turn, according to the SEC's later assessment, III took a fee for the "research" services it provided to money managers, "ostensibly for managing the client commission accounts." 61 III credited the remainder to the manager's account, either to be recaptured as cash by the portfolio or as third-party research services provided to the manager. The SEC found some of these research services — "such items as periodicals, newspapers, quotation equipment, and general computer services" — to have been generic in nature and therefore prohibited as

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61 2006 Guidance, at 41981.

⁵⁹ Interpretations of section 28(e): Use of Commission Payments by Fiduciaries, Exchange Act Release No. 12,251, [1975-1976 Transfer Binder] Fed. Sec. L. Rep. (CCH) paragraph 80,407 (Mar. 24, 1976).

⁶⁰ Report of Investigation in the *Matter of Investment Information, Inc. Relating to the Activities of Certain Investment Advisers, Banks, and Broker-Dealers, Exchange Act Release No. 16679, 19 SEC Docket 926* (Mar. 19, 1980) [hereinafter *III Release*].

readily and customarily available to the general public, even though the complete package III offered was proprietary.

These arrangements fell outside Section 28(e)'s safe harbor because, in the SEC words, participating brokers "in no significant sense provided the money managers with research services." The brokers were unaware of the specific services the money managers acquired from the third-party vendors and did not directly pay the bills for these services. They merely executed the transactions and paid a portion of the commissions to III. What is more, III was not a registered broker and performed no brokerage function in the securities transactions. As the SEC later summarized the *Report*, "[t]he Commission concluded that, although Section 28(e) does not require a broker-dealer to produce research services 'in-house,' the services must nevertheless be 'provided by' the broker-dealer."

Later that same year the SEC clarified the meaning of the phrase "provides brokerage and research services" [emphasis added], finding that section 28(e)(3) requires only that the broker retain the "legal obligation to a third party producer to pay for the research . . . regardless of whether the research is then sent directly to the broker's fiduciary customer by the third party or instead is sent to the broker who then sends it to its customer."

Amid growing unrest among institutional brokers and portfolio managers, in 1986 the SEC amended its 1976 "readily and customarily available" standard for the eligibility of safe harbor research. In response to the "changing array of research products and the impact of new technology on brokerage practices," and believing "that the issue is

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⁶² *III Release*, at 931-32.

⁶³ Discuss infra whether III might have engaged in monitoring execution quality. By building a wall between managers and brokers, III may have been able to reduce brokers' opportunities for frontrunning. It may also have been able to put participating brokers into a tournament situation in which they knew their performance was being carefully assessed. Why should an arrangement that allows specialized monitoring that reduces conflicts be prescribed. Until the SEC figures out that the appearance of one conflict is very likely to ameliorate other, perhaps hidden, conflict, its approach to protecting investors is as likely to punish them as to protect them. Of course, according to Campos none of this bears any relation to investor returns.

^{64 2006} Guidance, at 41981-82.

⁶⁵ See National Association of Securities Dealers, Inc., Exchange Act Release No. 17,371, [1980 Transfer Binder] Fed. Sec. L. Rep. (CCH) paragraph 82,705 (Dec. 12, 1980).

ultimately one of good faith on the part of the money manager"⁶⁶ best addressed through disclosure, the SEC relaxed the definition of research to include anything that "provides lawful and appropriate assistance to the money manager in the performance of his investment decision-making responsibilities."⁶⁷ This standard begs the question of exactly what type of assistance is or is not lawful and appropriate, but the SEC lifted it straight from the *Congressional Record* and so it seems to have taken on a weight disproportionate to its utility.

In the SEC's words, "[w]hat constitutes lawful and appropriate assistance in any particular case will depend on the nature of the relationships between the various parties involved and is not susceptible to hard and fast rules." The SEC made one other point clear from the *Congressional Record*, which is that "[t]he definition of brokerage and research services is intended to comprehend the subject matter in *the broadest* [emphasis added] terms." This ruling clearly allowed generic research inputs to be included in the safe harbor and was followed by considerable expansion in soft dollar brokerage, largely at the expense of established full-service brokerage houses.

Perhaps the most puzzling early SEC proceeding under section 28(e) was a 1990 No-Action Letter ruling in response to an inquiry from the Department of Labor (DOL). Before taking enforcement action in several pending cases under the Employee Retirement Income Security Act (ERISA) (1974), which regulates the management of private pension funds, the DOL requested the SEC's opinion on whether the safe harbor applies to fixed income securities and over-the-counter (OTC) stocks, including those listed on the National Association of Securities Dealers Automatic Quotation System (NASDAQ), which are traded primarily by dealers on a principal basis rather than by brokers on an agency basis. In contrast to the commissions brokers receive for acting as agents, when trading for their own account as dealers they earn a mark-up or mark-down

⁶⁶ 1986 Interpretative Release, at 13-14.

⁶⁸ 1986 Interpretive Release, at 3 and n. 9.

⁶⁷ 1986 Interpretative Release, at 4. It seems plausible that the SEC's new interpretation was inspired, at least in part, with a view toward the London Stock Exchange's concurrent deregulation of fixed commissions, a development that no doubt threatened U.S. markets with a loss of trading volume.

equal to the difference between the price at which they buy and the price at which they sell.

By its text, section 28(e) covers trades the manager sends to a "broker or dealer," but in reference to the trader's compensation it mentions only "commissions," not markups or mark-downs. In the narrow sense of the term, only brokers earn commissions, while dealers, as principals, earn mark-ups and mark-downs. Since Congress passed section 28(e) to mitigate problems owing specifically to the unfixing of *commissions*, the No-Action Letter found that the safe harbor does not apply to dealer transactions. This decision brought the burgeoning use of soft dollars in fixed income and OTC equity transactions to a grinding halt.

Reportedly at the behest of Morgan Stanley and Goldman Sachs, leading fullservice brokerage houses that had lost substantial business to soft dollar brokers, ⁶⁹ in 1995 the SEC published a proposing release titled Disclosure by Investment Advisers Regarding Soft Dollar Practices. It called for public comment on a proposal to require investment advisers to provide clients with annual reports containing enhanced disclosure of the adviser's brokerage allocation practices. The release noted that current disclosure is sufficient to inform clients that their advisers engage in soft dollar arrangements, but in light of the associated conflicts of interest it may provide insufficient detail to allow them to negotiate specific limits on soft dollar use. Under then current rules, all advisers subject to the IAA (including advisers to mutual funds regulated under the ICA) were required to provide their clients annually with Part II of Form ADV, the so-called "brochure," which must disclose in general terms "the nature of the adviser's soft dollar practices, including: (i) the services that the adviser obtains through soft dollar arrangements; (ii) whether clients may pay higher commissions ('pay up') as a result of the arrangements; (iii) whether soft dollar services are used to benefit all client accounts or only those accounts the brokerage of which was used to purchase the services; and (iv) any procedures that the adviser uses to allocate brokerage."⁷⁰

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⁶⁹ Jack Willoughby, Goldman and Morgan Bow Under Client Pressure on Soft Dollars; Deluge of Client Complaints Softens Get-tough Provisions, INVESTMENT DEALERS' DIGEST (August 21, 1995), at 3.

⁷⁰ See Disclosure by Investment Advisers Regarding Soft Dollar Practices, SEA Rel. No. 35375 (Feb. 14, 1995), 60 FR 9750, 9751 (Feb. 21, 1995) [1995 Disclosure Proposal], at 5 and n. 15.

The proposal outlined the conflicts of interest that arise from Section 28(e)'s modification of an adviser's strict fiduciary duty to act in the best interest of each client. First, soft dollar arrangements permit "an adviser to cause a client to pay higher commissions than otherwise are available to obtain research that may not be used exclusively for the benefit of the client or used to benefit the client at all." Second, they may "cause an adviser, in order to obtain soft dollar services, to violate its best execution obligations by directing client transactions to brokers who could not adequately execute the transactions." Third, they "may give advisers incentives to trade client securities inappropriately to generate credits for soft dollar services." Fourth, they may "diminish the ability of a client to evaluate the expenses it incurs in obtaining portfolio management services and may hinder the ability of the client to negotiate fee agreements, because the costs of soft dollar services are 'hidden' from investors in brokerage commissions." Fifth, by allowing "advisers to use their clients' transactions to pay for research services that they otherwise would have to purchase with 'hard dollars,' soft dollar arrangements permit advisers to charge fees that do not fully reflect the cost of portfolio management." Finally, "[a]dvisers that do not engage in soft dollar arrangements may be put at a competitive disadvantage if they pay for services with hard dollars and attempt to pass the cost of these services on to clients through higher fees."⁷¹ The proposed annual report would have required advisers to provide enhanced disclose, on an aggregate basis across all of their client accounts for the most recent fiscal year, consisting of

(1) the twenty brokers to which the adviser directed the largest amounts of commissions and certain other transaction-related payments (collectively, 'commissions'), (2) the three brokers substantially all of whose services for the adviser were execution services ('execution-only brokers') to which the adviser directed the largest amounts of commissions, (3) the aggregate amount of commissions directed by the adviser to each broker listed and the percentage of the adviser's total discretionary brokerage this amount represents, (4) the average commission rate paid to each broker listed, and (5) for each broker other than an execution-only broker, information concerning products or services obtained from the broker. The report would also disclose the percentages of the adviser's total

71 1995 Disclosure Proposal, at 4-5.

commissions that are directed to execution-only brokers, to other brokers, and at the request of clients. 72

In the cost/benefit analysis the SEC routinely provides with such proposals, it concluded that enhanced disclosure "would impose some additional costs on advisers required to prepare the report and deliver it to clients. . . . [but] because the report would need to be prepared and delivered only annually, the costs of preparing and delivering [it] should be minimized. In short, the Commission believes that the costs of the proposals [sic] would be outweighed by the benefits to advisory clients in receiving more useful information about their advisers' direction of client brokerage."

Members of the advisory and brokerage industry fiercely disagreed, seeing enhanced disclosure as a blunt attempt by established full-service sell-side firms, Morgan Stanley and Goldman Sachs, to hobble their smaller soft dollar rivals. As one industry trade publication put it, "[t]hough the tougher disclosure standards would put untold hardships on the small firms, they would mean nothing to the full service firm because their services [are] bundled together and, as such, [are] inseparable." Members of the buy-side investment advisory community also protested, pressuring Morgan and Goldman to recapitulate. They ultimately did, favoring a watered-down system of enhanced disclosure to the SEC as an alternative. One important reason for advisory firms' protest was the prospect of having to reveal sensitive proprietary information allowing rivals to free ride on their strategic brokerage allocation practices. The SEC abandoned the proposal.

During the same year, the SEC created the Office of Compliance Inspections and Examinations (OCIE), consolidating inspection and examination programs authorized by the SEA and ICA and previously performed by the Divisions of Investment Management

73 1995 Disclosure Proposal, at 18-19.

⁷² 1995 Disclosure Proposal, at 2.

⁷⁴ Jack Willoughby, *Goldman and Morgan Bow Under Client Pressure on Soft Dollars; Deluge of Client Complaints Softens Get-tough Provisions*, Investment Dealers' Digest (August 21, 1995), at 3.

⁷⁸ 2001 Interpretive Release, at 7.

and Market Regulation.⁷⁵ OCIE's first major published report was its 1998 *Inspection Report on the Soft Dollar Practices of Broker-Dealers, Investment Advisers and Mutual Funds*, in which it reviewed the results of an audit sweep of some 355 broker-dealers, advisers, and mutual funds. The *OCIE Report* described the range of products and services advisers were obtaining from their institutional brokers. Among other things, it raised concern about the products advisers were treating as research under 28(e), opining that many of them did not deserve safe harbor protection under the 1986 standard. It recommended that "the Commission provide further guidance on the scope of the safe harbor and require better recordkeeping and enhanced disclosure of client commission arrangements and transactions."

In its abandoned *1995 Disclosure Proposal*, the SEC affirmed the 1990 No-Action Letter finding that principal transactions on fixed income and OTC equity securities fall outside Section 28(e)'s safe harbor. Given that this release was never approved its legal status is unclear, but in any event the SEC largely reversed itself in its 2001 interpretive release *Commission Guidance on the Scope of Section 28(e) of the Exchange Act.* Noting that, to date, it had considered the term "commission" under the safe harbor to apply exclusively to transactions performed on an agency basis, the SEC conceded that reference to the term "dealer" in Section 28(e) "might suggest that the term "commission" includes fees paid to a broker-dealer acting in other than an agency capacity." To rationalize the ambiguity and at the same time to justify including certain dealer trades in its new interpretation, the SEC argued that "[t]he meaning of the term "commission" in Section 28(e) is informed by the requirement that a money manager relying on the safe harbor must determine in good faith that the amount of 'commission' is reasonable in relation to the value of research and brokerage services received. This requirement presupposes that a 'commission' paid by the managed account is

⁷⁵ Chairman Levitt Announces Two Initiatives to Improve Investor Protection: Creates Office of Compliance Inspections and Examinations to Coordinate SEC Inspection Programs; Creates Office of Municipal Securities, SEC NEWS RELEASE 95-50, 1995 WL 119773 (S.E.C.), Mar. 22, 1995.

⁷⁶ Office of Compliance Inspections and Examination, U.S. Securities and Exchange Commission, *Inspection Report on the Soft Dollar Practices of Broker-Dealers, Investment Advisers and Mutual Funds* 3 (Sept. 22, 1998), at 47-52 [*OCIE Report*] (available at http://www.sec.gov/news/studies/softdolr.htm).

⁷⁷ SEC Interpretation: Commission Guidance on the Scope of Section 28(e) of the Exchange Act, Exchange Act Release No. 45194 (Dec. 27, 2001), 67 FR 6 (Jan. 2, 2002) [2001 Interpretive Release].

quantifiable in a verifiable way and is fully disclosed to the money manager." At the time it issued its guidance in the 1995 release the spread cost on principal trades was neither quantifiable nor verifiable, precluding the manager from making the necessary reasonableness determination.

By 2001, changes in National Association of Securities Dealers (NASD) confirmation rules required so-called "riskless principal" transactions in OTC equity securities to be disclosed to the manager. In a riskless principal transaction, the manager informs the broker-dealer of his trading interest in advance. In a "buy" transaction, the dealer buys the security from another dealer for his own account and immediately re-sells it to the manager at a predetermined mark-up. With the mark-up formally reported, the manager is able to make the good faith reasonableness determination in relation to any research or other services he receives. Although this transparency rationale for Section 28(e) protection never appeared in the 1990 No-Action Letter or the 1995 Release, the SEC nevertheless used it to justify bringing riskless principal transactions in OTC equities within the safe harbor. Because fixed income markets had yet to develop sufficient transparency, dealer transactions in those securities continue to fall outside the safe harbor.

2. Regulatory Competition Emerges

In the wake of the widely-publicized *Global Settlement* by ten prominent members of the investment banking community for having allowed their research analysts to engage in conflicts of interest, ⁸⁰ the mutual fund industry was widely touted as being scandal free. Speaking at an Investment Company Institute conference on securities law developments in December, 2002, SEC Commissioner Paul S. Atkins had this to say: "I believe that one reason why the mutual fund industry has avoided the scandals plaguing other industries stems from the simple, fundamental properties of fund management: (1) limitations on affiliated transactions, (2) daily market valuations, (3)

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⁷⁹ 2001 Interpretive Release, at 7.

⁸⁰ See http://www.sec.gov/news/press/2003-54.htm.

oversight of funds by independent boards to eliminate conflicts of interest and prevent abuses, and (4) no taxpayer guarantees like the banking industry has."⁸¹

This perception helps explain why the SEC took little action on the recommendations of the 1998 *OCIE Report* until New York State Attorney General Eliot Spitzer uncovered apparent trading improprieties in various mutual fund families beginning in September 2003. What would quickly become known as the "mutual fund scandals" caught the SEC off-guard, as Spitzer, more nimble, repeatedly grabbed the media spotlight by using the threat of criminal prosecution under New York's onerous Martin Act to extract quick settlements and incriminating evidence from his expanding chain of targets. Facing intense regulatory competition from Spitzer, the SEC was

⁸¹ Speech by SEC Commissioner Paul S. Atkins: *Remarks Before the Investment Company Institute 2002 Securities Law Developments Conference*, December 9, 2002, at http://www.sec.gov/news/speech/spch120902psa.htm.

- 1. It shall be illegal and prohibited for any person, partnership, corporation, company, trust or association, or any agent or employee thereof, to use or employ any of the following acts or practices:
- (a) Any fraud, deception, concealment, suppression, false pretense or fictitious or pretended purchase or sale;
- (b) Any promise or representation as to the future which is beyond reasonable expectation or unwarranted by existing circumstances;
- (c) Any representation or statement which is false, where the person who made such representation or statement: (i) knew the truth; or (ii) with reasonable effort could have known the truth; or (iii) made no reasonable effort to ascertain the truth; or (iv) did not have knowledge concerning the representation or statement made; where engaged in to induce or promote the issuance, distribution, exchange, sale, negotiation or purchase within or from this state of any securities or commodities, as defined in section three hundred fifty-two of this article, regardless of whether issuance, distribution, exchange, sale, negotiation or purchase resulted.

As one commentator characterized Spitzer's actions:

The purpose of the Martin Act is to arm the New York attorney general to combat financial fraud. It empowers him to subpoena any document he wants from anyone doing business in the state; to keep an investigation totally secret or to make it totally public; and to choose between filing civil or criminal charges whenever he wants. People called in for questioning during Martin Act investigations do not have a right to counsel or a

⁸² Specifically, Spitzer found evidence of undisclosed late trading, market timing, and sticky asset agreements between fund advisers and certain large investors in their managed funds that arguably violated New York's Martin Act prohibiting financial fraud. *See, e.g.*, Marcia Vickers, Mara Der Hovanesian, and Amy Borrus, *How to Make the SEC Look Stodgy*, BUSINESS WEEK, September 15, 2003, Pg. 40.

⁸³ The Martin Act is found in New York Consolidated Laws, General Business Law Article 23-A: ARTICLE 23-A: FRAUDULENT PRACTICES IN RESPECT TO STOCKS, BONDS AND OTHER SECURITIES. Section 352-c. Prohibited Acts Constituting Misdemeanor Felony, reads in part:

compelled to do *something* to appear vigilante. The old administered equilibrium between the SEC and the fund industry was over. Although there was no evidence of significant or mounting improprieties in the soft dollars arena, they were an obvious target for further scrutiny and possible regulatory action, including SEC advice to Congress that it repeal the nettlesome Section 28(e) safe harbor.⁸⁴

a. The SEC Considers Transaction Costs

In response to a number of then-recent academic studies showing low-return mutual funds tend to have high-expenses, ⁸⁵ in December 2003 the SEC published its *Concept Release: Request for Comments on Measures to Improve Disclosure of Mutual Fund Transaction Costs.* ⁸⁶ The *Concept Release* solicited outside comments on whether, and to what extent, mutual funds should be required to report the cost of transacting

right against self-incrimination. Combined, the act's powers exceed those given any regulator in any other state.

Now for the scary part: To win a case, the AG doesn't have to prove that the defendant intended to defraud anyone, that a transaction took place, or that anyone actually was defrauded. Plus, when the prosecution is over, trial lawyers can gain access to the hoards of documents that the act has churned up and use them as the basis for civil suits. "It's the legal equivalent of a weapon of mass destruction," said a lawyer at a major New York firm who represents defendants in Martin Act cases (and who didn't want his name used because he feared retribution by Spitzer). "The damage that can be done under the statute is unlimited."

Nicholas Thompson, *The Sword of Spitzer*, LEGAL AFFAIRS, May/June 2004 (available at http://www.legalaffairs.org/issues/May-June-2004/feature_thompson_mayjun04.msp). See, also, Robert A. McTamaney, *New York's Martin Act: Expanding Enforcement in an Era of Federal Securities Regulation*, LEGAL BACKGROUNDER (Washington Legal Foundation), Vol. 18, No. 5, February 28, 2003 (available at http://www.clm.com/pubs/2-28-03mctamaney.lb.pdf).

WSJ on Cox Letter, *supra*, at n. ?. See *Testimony Concerning The Mutual Funds Integrity And Fee Transparency Act Of 2003*, H.R. 2420, Paul F. Roye, Director, Division of Investment Management, U.S. Securities & Exchange Commission, Before the House Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, Committee on Financial Services (June 18, 2003).

⁸⁵ See, e.g., Mark Carhart, On the Persistence in Mutual Fund Performance, 52 J. Fin. 57 (1997); John C. Bogle, Re-Mutualizing the Mutual Fund Industry--the Alpha and the Omega, 45 B.C. L. REV 391 (2004). The results of these and other studies have since been called into question. See, e.g., Russ Wermers, Mutual Fund Performance: An Empirical Decomposition into Stock-Picking Talent, Style, Transaction Costs, and Expenses, 50 J. Fin. 1655 (2000); Robert Kosowski, Allan Timmerman, Russ Wermers, and Hal White, Can Mutual Fund "Stars" Really Pick Stocks? New Evidence from a Bootstrap Analysis, 61 J. Fin. 2551 (2006).

⁸⁶ Concept Release, at 74820-21.

portfolio securities.⁸⁷ As of that time, funds were already required to report various fees, expense ratios, annual portfolio turnover, and annual brokerage commissions for the most recent three years. In the introduction to the *Concept Release* the SEC correctly points out that brokerage commissions are only one component of the costs of transacting securities. In addition, executing portfolio trades gives rise to implicit and difficult-to-measure transaction costs, including spread costs, "price" or "market" impact, and the opportunity cost of delay, which together can easily overwhelm brokerage commissions.

Specialists, who make markets on the floor of the NYSE and other exchanges, and market-makers on the NASDAQ and other OTC markets, occupy the crossroads — whether real or virtual — where securities traders meet to execute their clients' trades. These dealers post the bid and ask prices at which they stand ready to buy or sell an identified number of shares of a given security for their own account. Their public charge is to provide liquidity by making an orderly market. They would not be in business for long unless they made enough money buying and selling to compensate them for their forgone opportunities. At any moment, therefore, the posted price the market maker "asks" to sell the security will always be slightly greater than the price he "bids" to buy it. The difference is known as the "spread." A hypothetical trader who buys and immediately resells a small block of stock, as in a riskless principal transaction, would pay an easily calculated spread — in addition to any brokerage commission paid to an agent or mark-up or mark-down paid to in intermediate dealer to search for the most advantageous opportunity to trade. But because many round-trip trades are completed over the course of time it is normally impossible to know the exact spread cost.

The real problem is that it is extremely difficult to distinguish adverse changes in bid and ask prices owing to noise from those that result from an informed trader's presence in the market. Market-makers, specialists, and other market participants are ever watchful for evidence that privately-informed traders — those who seek to trade mispriced securities — have entered the market to trade a particular security. So-called

⁸⁷ Both the *Concept Release* and the great majority of finance scholars use the term "transaction costs" to refer to the costs of trading securities, rather than the cost of economic organization more generally. The former is a subset of the latter. Harold Demsetz, a prominent practitioner of transaction cost economics, was the first to analyze the cost of trading securities. Harold Demsetz, *The Cost of Transacting*, 82 Q.J.E. 33 (1968).

"frontrunners" will try to trade ahead of informed traders. They will buy the security in advance of informed buyers, who, by definition, know the current price is too low, and sell — or sell short if they do not already own the security — in advance of informed sellers. One category of such frontrunners are disloyal brokers, who either trade for their own account in advance of their informed clients' trades or tip associates as to the pending opportunity for a near-riskless profit. Another category consists of traders who wait patiently for careless brokers to signal their informed clients' presence in the market and then trade ahead of the broker.

Market-makers and specialists versed in the art of trading will be on guard to adjust their bid and ask prices to avoid being taken advantage of by informed traders and frontrunners. Any trader who shows undue haste to have an order executed, including those who seek to trade in relatively large blocks, is likely to cause the market-maker or specialist to adjust the bid or ask price in an adverse direction. The same is true of any significant or sustained order imbalance from seemingly disparate sources. When the price of a security changes as a result of the effort to purchase or sell it, the result is price impact. The Concept Release recognizes price impact as a large component of implicit transaction costs and one the portfolio manager can influence through careful trading.

Among other methods, a manager can reduce price impact by breaking a trade into smaller orders and stretching their execution out over time. At some point delaying the completion of a trade will lead to an offsetting cost. Imagine, for example, a manager who has concluded that Security X, which he holds in his portfolio, is overpriced and that Security Y is underpriced. He decides to sell a large block of X and then buy Y with the proceeds. He can reduce price impact on X by delaying, but he risks the possibility that Y will increase before he has the capital from the sale of X to buy it. This represents a forgone opportunity from delay. A prudent manager will optimize over price impact and the opportunity cost of delay. Indeed, he will optimize over explicit and implicit transaction costs, neither minimizing nor maximizing either.

The *Concept Release* seeks comment on whether, and how, implicit transaction costs might be disclosed to fund shareholders. It concedes that completely accurate disclosure is impossible, among other reasons because it is too costly to disentangle price

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changes owing to noise from those owing to price impact. As the SEC quotes one commentator, "transaction cost measurement is as much an art as a science. It's very difficult to accurately measure implicit trading costs. Not all companies use the same methodology, and there's no commonly accepted standards [sic] as to how to measure price impact."88 To its credit, the SEC has thus far declined to take any action requiring fund advisers to disclose implicit transaction costs.

b. The Safe Harbor Reconsidered

Amid the gathering political storm inspired by Spitzer's fund scandals, Congress held hearings to further consider regulation of fund advisers and their institutional brokerage arrangements. Two emergent bills were the Mutual Fund Transparency Act of 2003, aimed at improving disclosure of fees and brokerage commissions, 89 and the Mutual Fund Transparency Act of 2004, among other things aimed at prohibiting soft dollar brokerage. 90 In the words of then Senator Fitzgerald (R-Illinois), a prominent critic of soft dollar brokerage and co-sponsor of the 2004 Bill, "a mutual fund will cut a deal with a broker that will allow the brokerage to charge higher-than-market commissions on trades – soft-dollar commissions – in return for the brokerage firm buying, for example, computer terminals or research for the fund company. These costs are passed on to the fund company's customers without ever showing up in the expense ratio. It's wrong.",91

In this charged political environment, the SEC's requested the National Association of Securities Dealers (NASD) to form a task force to provide it with guidance on how to "improve the transparency of mutual fund portfolio transaction costs and distribution arrangements." Composed of senior executives from the NASD, prominent advisory firms, broker-dealers, and representatives of the legal and academic

⁸⁸ Concept Release, n. 23.

⁸⁹ S. 1822, 108th Cong. (2003).

⁹⁰ H.R. 4505, 108th Cong. (2004).

⁹¹ Jon Birger, Mr. Fitzgerald Leaves Washington, MONEY, Dec., 2004, at 80A. The costs of soft dollar research show up in the portfolio's net returns, which will necessarily be lower than otherwise, all else being equal.

communities, in November 2004 the Task Force issued its *Report*. Among other things, it found that "the safe harbor for soft dollar practices set forth in Section 28(e) is an important element in the current system for providing research and remains valid . . . [But that the] advantages of [soft dollar research] must be balanced against the need to address the potential conflicts of interest and disclosure issues as they raise." Noting that the SEC's 1998 *Inspection Report* had found that relatively small advisory firms were relatively heavy users of third-party research, the Task Force emphasized that investors will be best served if proprietary and third-party research are treated equally under 28(e), so that research is readily available to all portfolio managers.

The *NASD Report* went on to recommend that the scope of research services be narrowed to exclude services that principally benefit the adviser. Specifically, it suggested that safe harbor protection be limited to "brokerage services as described in Section 28(e)(3) and the 'intellectual content' of research," which it defined as "any investment formula, idea, analysis or strategy that is communicated in writing, orally or electronically and that has been developed, authored, provided or applied by the broker-dealer or third-party research provider." Excluded from protection should be the means by which intellectual content is provided, such as publications in general circulation, computer hardware, online news services, phone lines, data transmission lines, portfolio accounting services, proxy voting services unrelated to research, and travel expenses to meet with corporate managers. ⁹⁵

Almost a year later the SEC put forth its proposing release *Commission Guidance Regarding Client Commission Practices Under Section 28(e) of the Securities Exchange Act of 1934*, ⁹⁶ which it adopted largely intact in July 2006. ⁹⁷ Occupying 17 pages of the

⁹² NASD, (Nov. 11, 2004) [NASD Report] (available at http://www.nasd.com/web/groups/rules-regs/documents/rules-regs/ nasdw-012356.pdf.).

⁹³ NASD Report, at 4.

⁹⁴ NASD Report at 6-7.

⁹⁵ NASD Report, at 7.

⁹⁶ Exchange Act Release No. 52635 (Oct. 19, 2005), 70 FR 61700 (Oct. 25, 2005).

⁹⁷ 2006 Guidance, supra n.?

The SEC adopted this release with an eye to recent developments in the United Kingdom. In July 2005, the U.K.'s Financial Services Authority (FSA) adopted final client commission rules that describe "execution" and "research" services and products eligible to be paid for by client commissions. It also specified a number of "non-permitted" services that must be paid for with hard dollars, such as "computer hardware, telephone lines, and portfolio performance measurement, and valuation services,"

Federal Register, the release begins by noting that the term "soft dollars" has become increasingly ambiguous. It originally referred to the explicit bundling of third-party research into premium brokerage commissions. Eventually one scholar, and then regulators, came to recognize that whatever conflicts arise with soft dollars are actually the result of bundling and not the provision of third-party research, per se. ⁹⁸ The implicit bundling of in-house proprietary research into premium brokerage commissions, as illustrated by the diagonal arrow in Figure 1, is subject to the exact same alleged conflicts of interest. It increases managers' incentive to trade, to use research, and to show increased loyalty to participating brokers. ⁹⁹ To ensure equal treatment of third-party and in-house research, the release notes that the SEC now uses the phrase "client commissions" to refer to any situation in which the manager receives bundled brokerage and research services protected under the Section 28(e) safe harbor. ¹⁰⁰

Citing Section 216 of the *Restatement (Second) of Trusts*, the release emphasizes that fiduciary principles require "the adviser to act in the best interest of his client [and preclude] the adviser from using client assets for the adviser's own benefit or the benefit of other clients, at least without client consent." According to the SEC's reasoning, client commissions are assets of the client. A manager who uses client commissions to pay for brokerage and research services he or she would otherwise have paid out of pocket receives a personal benefit. Ergo, a manager who receives brokerage or research services ineligible for safe harbor protection under 28(e) faces a conflict of interest that may constitute a breach of fiduciary duty. A manager's receipt of benefits falling outside of 28(e) may also constitute a criminal violation of ICA Section 17(e), which prohibits

acknowledging that some products and services may be permitted or non-permitted depending on how they are used by the money manager. In the SEC's words, "we have taken the FSA's work into account in developing our position in this release, while recognizing the significant differences in our governing law

28(e)." 2006 Guidance, at 41983.

and rules, such as the fact that the United Kingdom does not have a statutory provision similar to Section

⁹⁸ D. Bruce Johnsen, *Property Rights to Investment Research, supra* n. ?, at 109-10. To the best of my knowledge, this was the first scholarly article to recognize that the popular criticisms of soft dollars apply equally to proprietary in-house research. The first indication that the SEC recognized the equivalence appears in its 1995 disclosure release, where it first uses the more even-handed phrase "client commissions" to describe bundled-in research.

⁹⁹ See supra, at?, citing 1995 Disclosure Proposal.

¹⁰⁰ 2006 Guidance, at 41978.

¹⁰¹ 2006 Guidance, at 41978.

agents, other than brokers, from accepting outside compensation when buying or selling property for a registered investment company.

The release explains that in light of various market developments the SEC is revising its 1986 interpretation of the scope of "brokerage and research services" under the safe harbor, even though it will continue to rely on the "lawful and appropriate standard" more generally. The resulting framework for analysis requires the manager to make three determinations. First, "whether the product or service falls within the specific statutory limits of Section 28(e)(3) (*i.e.*, whether it is eligible 'research' under Section 28(e)(3)(A) or (B) or eligible 'brokerage' under Section 28(e)(3)(C))." Second, "whether the eligible product or service actually provides lawful and appropriate assistance in the performance of [the manager's] investment decision-making responsibilities," with mixed-use products and services requiring "a reasonable allocation of the costs of the product according to its use." Third, tracking the language of 28(e), whether the manager believes in "good faith [that] the amount of client commissions paid is reasonable in light of the value of products or services provided by the broker-dealer." 102

Much of the release discusses how to determine the eligibility of specific types of brokerage and research services. Foremost in the discussion is the SEC's finding that, to qualify as eligible *research*, "advice, analyses, and reports" must reflect an "expression of reasoning or knowledge." This includes "order management systems," "pre- and post-trade analytic software," and "other products that depend on market information to generate market research, including research on optimal execution venues and trading strategies." Products or services that reflect no expression of reasoning or knowledge, with the sole exception of market data services, fall outside the safe harbor. Eligible research includes "reports concerning issuers, industries, securities, economic factors and trends, portfolio strategy, and the performance of accounts," as specifically mentioned in the safe harbor. It also subsumes other topics such as "political factors" that can influence any of the enumerated subjects. 104

¹⁰² 2006 Guidance, at 41985.

¹⁰³ 2006 Guidance, at 41987.

¹⁰⁴ 2006 Guidance, at 41985.

Mass marketed publications, inherently tangible items such as computer terminals, telephone lines, and office furniture, and travel to seminars and meetings with corporate executives reflect no expression of reasoning or knowledge and are more properly considered overhead than advice, analyses, or reports. As such, they are ineligible for safe harbor protection as research services. The sole exception, according to the SEC, may be for certain market and other data services that are "lawful and appropriate," such as stock quotes, last sale prices, trading volumes, economic data, and company financial data, that contain "substantive content." In the SEC's words,

"this approach will promote innovation by money managers who use raw data to create their own research analytics, thereby leveling the playing field with those money managers who buy finished research, which incorporates raw data, from others. Additionally, we believe that excluding market data from the safe harbor could become meaningless if it encouraged purveyors of this information to simply add some minimal or inconsequential functionality to the data to bring it within the safe harbor." ¹⁰⁵

In defining eligible *brokerage* services, the release notes that Section 28(e)(3)(C) protects any person who "effects securities transactions." It goes on to observe that the "technological explosion" has led to a proliferation of state-of-the-art computer and communications systems to facilitate the execution of trades. The use of client commissions to pay for such tangible items may present advisers with difficulty distinguishing between eligible brokerage services and ineligible overhead. To help advisers distinguish between the two, the SEC points out that the "execution of transactions is a process." From this, the release identifies what it characterizes as a "temporal standard" for defining eligible brokerage services, according to which "brokerage begins when the money manager communicates with the broker-dealer for the purpose of transmitting an order for execution and ends when funds or securities are

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¹⁰⁵ 2006 Guidance, at 41987-88.

delivered or credited to the advised account or the account holder's agent." This standard excludes activity on the front-end and back-end of an order, as well as overhead.

In addition to protecting those who effect securities transactions, Section 28(e)(3)(C) protects functions incidental thereto, such as "clearance, settlement, and custody," or that are required "in connection therewith by rules of the Commission or a self-regulatory organization." Whereas connectivity services that transmit research are separable and therefore excluded from safe harbor protection, the transmission of orders to brokers has always been "considered a core part" of brokerage services and is therefore eligible under the safe harbor. The release identifies the following laundry list of incidental functions eligible as brokerage services under the temporal standard: "connectivity service [such as] dedicated lines between the broker-dealer and the money manager's order management system, . . . dedicated lines providing direct dial-up service between the money manager and the trading desk at the broker-dealer[,] message services used to transmit orders to broker-dealers for execution, . . . trading software used to route orders to market centers, software that provides algorithmic trading strategies, and software used to transmit orders to direct market access ("DMA") systems "107 Telephones, computer terminals, including those used in connection with order management systems, and software used for quantitative analytics, recordkeeping, administration, and portfolio modeling are ineligible because they are insufficiently related to order execution and fall outside the temporal standard. They therefore constitute ineligible overhead.

Also falling outside the category of eligible brokerage services are those allowing managers to meet their compliance and reporting responsibilities. Compliance tests that analyze the quality of brokerage executions over time for the purpose of assessing best execution or portfolio turnover are excluded, as are assessments of the comparative performance of similarly managed accounts to detect favoritism, misallocation of investment opportunities, or other breaches of fiduciary duty.

¹⁰⁶ 2006 Guidance, at 41989.

¹⁰⁷ 2006 Guidance, at 41989.

So-called "mixed-use" items confront managers with special problems. An example of a mixed use item is a computer or other hardware that performs eligible brokerage services and ineligible research services. Even with regard to software, for example, if the manager uses "account performance analyses for both marketing purposes and investment decision-making, [he] may use client commissions only for the allocable portion of the item attributable to use of investment decision-making" The manager must perform a "good faith, fact-based analysis" of how the product or service is used to determine how its cost should be allocated between eligible and ineligible uses. In doing so, he or she may rely on such factors as "the amount of time the product or service is used for eligible purposes versus non-eligible purposes, the relative utility (measured by objective metrics) to the firm of the eligible versus non-eligible uses, and the extent to which the product is redundant with other products employed by the firm for the same purpose."

Relying on a 1975 House Report on Section 28(e) finding that a manager who receives brokerage and research would "of course . . . stand ready and be required to demonstrate that such expenditures were *bona fide*," ¹⁰⁹ the release concludes that the burden of proving good faith rests with the manager. The manager must therefore maintain sufficient books and records documenting its allocations to be able to make the required good faith showing. ¹¹⁰

The *Guidance* correctly observes that "specialization and innovation in the financial industry have resulted in the functional separation of execution and research" — what economists call *vertical dis-integration*. In many though by no means all cases, managers now receive research, largely in the form of inputs, from third-party vendors they select largely outside the purview of the executing broker. This raises the ongoing issue of the relationship between Section 28(e)'s requirements that the broker "*provides* brokerage and research" and "*effects* securities transactions" [emphasis added]. According to the SEC, in the new era of specialization a manager may rely on the safe

¹⁰⁸ 2006 Guidance, at 41990, n. 133.

¹⁰⁹ 2006 Guidance, at 41991.

¹¹⁰ 2006 Guidance, at 41991.

¹¹¹ 2006 Guidance, at 41993.

harbor only if the broker "effecting" the trade performs at least one of four functions and takes steps to ensure the other functions have been "reasonably allocated" to one of the other brokers in the arrangement in a way fully consistent with their obligations under existing rules. The four functions are: "(1) [t]aking financial responsibility for all customer trades until the clearing broker-dealer has received payment (or securities), *i.e.*, one of the broker-dealers in the arrangement must be at risk for the customer's failure to pay; (2) making and/or maintaining records relating to customer trades required by Commission and SRO rules, including blotters and memoranda of orders; (3) monitoring and responding to customer comments concerning the trading process; and (4) generally monitoring trades and settlements."

Finally, the release announces that the SEC is modifying its interpretation of "provided by" from its 1986 Release. On one hand, the SEC understands the benefits of specialization and the attendant pressure to separate brokerage and research. On the other hand, it expresses concern that money managers might use the associated arrangements to "conceal the payment of client commissions to intermediaries (including broker-dealers) that provide benefits only to the money manager." Accordingly, it finds the safe harbor is available to the manager only if the broker "pays the research preparer directly" and actively engages in monitoring "to assure itself [that any client commissions] the manager directs it to use to pay for such services are used only for eligible brokerage and research." 113

IV. A TRANSACTION COST ANALYSIS OF INSTITUTIONAL BROKERAGE

The seminal contribution of transaction cost economics is that it introduces the equivalent of friction into the neoclassical model of impersonal exchange of goods whose

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¹¹² 2006 Guidance, at 41994.

¹¹³ 2006 Guidance, at 41994-95. This requirement would seem to impose on the broker the duty to render a legal conclusion regarding the SEC's likely interpretation of 28(e) with respect to specific research services. Brokers do not have the wherewithal to render such judgments. Indeed, the SEC's wherewithal is doubtful. It has now re-interpreted the Section 28(e) safe harbor at least four times, abandoned a major soft dollar disclosure proposal, and abandoned its suggestion with the *Concept Release* that implicit transaction costs might be disclosed.

quality is easily evaluated at the moment trade occurs. ¹¹⁴ In the neoclassical model, the act of exchanging, itself, is costless, and competition ensures price is equal to marginal production cost. There is no need to rely on specialized agents, and no conflicts of interest arise because all dimensions of the exchange can be fully specified, *i.e.*, all goods are "search" goods. Once transaction costs are introduced, among other things buyers must evaluate quality, sellers must evaluate buyers' ability to pay, and trade is often supported by legally-enforceable contracts, reputational capital, long-term relationships, and various forms of economic organization that rely on specialized agents imperfectly motivated. Price cannot equal marginal production cost because transaction costs drive a wedge between the price the buyer pays and the net compensation the seller receives. Conflicts of interest are inevitable.

This does not mean unjust enrichment occurs on any significant scale, because the parties have strong incentives to avoid it. In 1976, Jensen & Meckling published the seminal work on principal-agent conflicts. Their positive (descriptive) analysis relies on "agency costs" (a form of transaction costs) to explain how the parties organize their business affairs to maximize the gains from trade. Agency costs consist of "monitoring costs" incurred by the principal, "bonding costs" incurred by the agent, and "residual losses." The principal can limit divergence from his interest by establishing appropriate organizational incentives for the agent, such as sharing profits or other benefits, and by incurring monitoring costs designed to limit harmful activity by the agent. In many situations it will pay the agent to spend resources bonding himself against actions that would harm the principal. In many agency relationships the parties incur both monitoring and bonding costs (non-pecuniary as well as pecuniary). In addition, it is inevitable that some beneficial trade does not occur that would have occurred absent agency costs. These are the residual losses. As long as residual losses persist, the parties have an

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¹¹⁴ Johnnie L. Roberts and Richard Gibson, *'Friction' Theorist Wins Economics Nobel*, Wall Street Journal, Oct. 16, 1991, Section B, page 1, supra at?.

¹¹⁵ Michael C. Jensen and William H. Meckling, *supra* n. ?, 3 J. FIN. ECON. 305 (1976). For other notable works see Stephan Shavell, *Risk Sharing and Incentives in the Principal and Agent Relationship*, 10 BELL J. ECON. 55 (1979); Sanford J. Grossman and Oliver D. Hart, *An Analysis of the Principal-Agent Problem*, 51 ECONOMETRICA 1 (1983); Yoram Barzel, *The Entrepreneur's Reward for Self-Policing*, 25 ECON. INQ. 103 (1987).

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interest in innovating new forms of organization to reduce them, that is, to increase the gains from trade. The cost of transacting inhibits this process.

A. Institutional Brokerage as an Experience Good

¹¹⁶ From the *Concept Release*: Footnote 32 "Virtually all the major institutions have a transaction-cost measuring system in place. They compare their actual execution costs to pre-trade benchmarks from models or peer comparisons from different firms. That puts pressure on the trading desks to control costs. So the guys who aren't doing it are being left behind." Sahoo, <u>supra</u> note?? (quoting Ananth Madhavan). ". . . [M]ore pension funds and investment managers are measuring transaction costs -- either by using proprietary systems or third party services Since the wrenching bear market of 2000 - '02, institutions have learned that transaction costs can be a significant drag on performance, and they have begun managing them as intently as they research stocks." See, also, Schack, *supra* note 10, at 32; and See, e.g., Stephen A. Berkowitz et al., The Total Cost of Transactions on the NYSE, 43 J. Fin. 97, 98 (1988).

117 D. Bruce Johnsen, Property Rights to Investment Research, *supra* n.?.

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agent relations. 118 His work, and indeed the entire field of transaction costs economics, is

¹¹⁸ See, especially, Ronald H. Coase, Payola in Radio and Television Broadcasting, 22 Journal of Law & Economics 269 (1979).

practices merely because they give rise to conflicts of interest. The cure is likely to be

If the cost of legally verifying the quality of broker executions was reasonably low, managers could enter into binding warranties with their brokers and seek money damages on behalf of the portfolio against those whose carelessness or greed led to excessive price impact. Absent egregious conduct by a broker — frontrunning being a potentially verifiable example 119 — it is impossible for a manager to seek legal recourse against a careless broker because the cost of verifying mere carelessness to an outside party in such a noisy setting is prohibitive. The best the manager can do to protect the portfolio is to terminate brokers whose execution quality proves to be sub-par over an extended series of trades.

B. Adverse Selection and Quality Assurance

The problem of assuring the quality of experience goods is one economists have examined in detail. Various economic models demonstrate the effectiveness of reputational capital, long-term relationships, performance bonding, hostages, screening, and other forms of organization at overcoming the moral hazard and adverse selection problems experience goods present. The solution often requires the buyer to pay a premium price that provides the seller with a surplus, or economic rent, for honoring his quality commitment. This should come as no surprise. The average consumer routinely buys hundreds of experience goods for which he happily pays a premium price to assure quality — gasoline, golf balls, fine perfume, and even garden-variety aspirin are just a few

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¹¹⁹ Frontrunning occurs when a broker or his tipee purposely trades a security ahead of the client's trades in anticipation of a price correction. The inevitable result is price impact.

¹²⁰ See, e.g., Klein & Leffler, supra n. ?; Charles J. Goetz and Robert E. Scott, Principles of Relational Contracts, 67 VA. L. REV. 1089 (1981); Oliver E. Williamson, Credible Commitments: Using Hostages to Support Exchange, 73 (4) Am. Econ. Rev. 519 (1983); George Baker, Robert Gibbons, Kevin J. Murphy, Relational Contracts and the Theory of the Firm (forthcoming Q.J.E.).

such goods. No serious golfer facing an important round would buy used or X'ed-out balls, even though they may be perfectly adequate and their price is a fraction of what a new sleeve of top-quality balls would cost. Few drivers of late-model cars buy off-brand gasoline, and aspirin buyers often pay a premium price for branded tablets, although the generic equivalent is far cheaper. Studies suggest that even those consumers who buy generic aspirin for themselves tend to favor branded aspirin over generic for their children, where quality assurance is considered particularly important.¹²¹

If people acting on their own behalf often "pay up" for goods so they can be confident of quality, it is reasonable that agents acting on others' behalf should do the same. Those who condemn fund managers for using investors' money to pay premium commissions for trades claim identical execution can be found for as little a penny per share. The inference is that any excess commission payment above this amount provides no compensating benefit to investors, serving merely to unjustly enrich managers. This is a normative claim that has little or no foundation in positive economic theory. A simple adverse selection model familiar in the economics literature easily shows why, under plausible assumptions, investors would suffer if the fund manager was required to pay the lowest available brokerage commission and why they are better served if he instead pays up for brokerage in exchange for soft dollar research and other beneficial inputs. 122

Imagine a fund adviser facing an indefinite series of identical trading rounds. Each round consists of two fiscal quarters in which he must choose between alternative brokerage arrangements, depicted in Table I. At the beginning of each quarter he must select an unfamiliar broker to execute a million-share block trade, which will yield a gross gain per quarter of 10 cents per share, or \$100,000, before deducting transaction costs. For convenience, the discount rate is zero and all parties are assumed to be risk neutral. There are two brokers from which to choose. One does high-quality (HQ) trades and the other low-quality (LQ) trades, but the adviser cannot tell the two apart. He knows the HQ broker must charge at least four cents per share to cover his execution

See K&L, at n. 18 (in 1978 the market share of generic aspirin for children was less than 1% compared to a 7% share for generic adult aspirin) and http://www.econlib.org/Library/Enc/BrandNames.html.

¹²² It is possible to introduce any number of complications and refinements such as moral hazard by brokers, but this would add little to the example.

costs, while the LQ broker must charge at least two cents per share. He also knows price impact on HQ trades is zero, but on LQ trades it is 12 cents, so that total transaction costs to the portfolio on LQ trades is 14 cents per share. As in any economic model, brokers' cost reflects a normal return on all foregone opportunities.

At the beginning of each round the adviser announces the brokerage commission he is willing to pay for the entire round and any terms and conditions he requires. This constitutes the solicitation of an offer from the brokers. If both brokers offer to trade on the announced terms, the adviser chooses randomly between them. If the adviser accepts a broker's offer he is legally bound to employ him for the first quarter at the announced commission rate. Although the adviser does not know either broker's type at the outset, he knows the probability of selecting the HQ broker is one-half. Broker quality is revealed only at the end of the first quarter, at which time the adviser can switch brokers for the second quarter but cannot adjust the brokerage commission.

To maximize investor returns, the adviser must decide the price he is willing to pay for brokerage. As shown in Panel A, if he sets a price of two cents per share (or is compelled by regulation to set the lowest available commission) to minimize brokerage commissions the HQ broker will never accept his offer, in essence withdrawing from the market. Only the LQ broker can afford to trade at that price and will be the only one to make an offer to the adviser. The portfolio will pay only \$20,000 per quarter in commissions but will suffer an additional \$120,000 per quarter in price impact. Total transaction costs during the round will be 14 cents per share for a total of \$280,000 (14 cents times 2 million shares). The portfolio will suffer a loss of \$80,000. Being able to anticipate this result, the adviser will choose not to trade and investors are deprived of a potential trading gains. This is the standard adverse selection result.

The first-best solution, would be for the adviser to offer four cents per share and trade only through the HQ broker, but owing to search costs (a form of transaction cost) he cannot identify the HQ broker. As shown in Panel B, there are two possible outcomes that result from following a four-cents-per-share trading policy, each of which carries a probability of .5. In Outcome 1 the adviser correctly picks the HQ broker and employs

¹²³ In reality, even HQ brokerage is likely to lead to some price impact. For the purposes of this example, price impact on LQ brokerage can be thought of as the excess above what would occur on HQ brokerage.

him for both quarters. Commission costs are \$40,000 in both quarters and total transaction costs for the round are \$80,000. Investors enjoy a total trading gain of \$120,000.

Over a series of rounds, the adviser selects the HQ broker in the first quarter only half the time. The remainder leads to Outcome 2, in which he selects the LQ broker. At four cents per share, the LQ broker is happy to trade. With execution costs of only two cents per share, he stands to earn a surplus in excess of his execution costs of \$20,000 before being terminated at the end of the first quarter. In Outcome 2 the adviser pays \$40,000 in brokerage commissions during the first quarter, but the portfolio suffers price impact of \$120,000. Total transaction costs are \$160,000, and investors suffer a trading loss of \$60,000. In the second quarter the adviser switches to the HQ broker and pays \$40,000 in commissions with zero price impact. Total transaction costs with Outcome 2 are \$200,000.

If the adviser sets the commission at four cents per share round after round, half the time total transaction costs will be \$80,000 and half the time they will be \$200,000, for an average of \$140,000, or seven cents per share. At the start of any round, this represents the adviser's expected transaction cost from following a four-cent per share commission strategy. Although less than ideal, this solution keeps the HQ broker in the market and allows the portfolio to benefit from his superior execution at least 75 per cent of the time. Investors earn an expected gain of \$60,000.

The adviser can do better. As shown in Panel C, he can offer to pay seven cents per share — to pay up — and condition acceptance on the broker's willingness to post a \$60,000 performance bond paid in cash to the portfolio at the start of the first quarter. Were the manager to select the LQ broker, he would discover the broker's type by the end of the quarter and terminate him in favor of the HQ broker. This strategy completely screens out the LQ broker, who stands to earn a trading surplus in the first quarter of only \$50,000 (seven cents per share minus his execution cost of two cents per share times a million shares). There is no way the LQ broker can earn back a \$60,000 up front bond.

¹²⁴ The manager's problem would be even worse if he had a large number of brokers from which to choose. With LQ and HQ brokers evenly distributed, he would by no means be assured of picking a HQ broker in the second quarter.

The LO broker will withdraw from the market. The adviser will invariably choose the HQ broker, who, after paying \$60,000 for the privilege of trading, earns a surplus above his variable execution costs in each quarter of \$30,000, exactly earning back his up-front bond by the end of the round. At seven cents per share, total brokerage commissions for the round are \$140,000 with zero price impact. Even if the adviser were to pocket the entire \$60,000 up-front bond investors would be no worse off than above, where the adviser pays four cents per share in commissions.

Assuming for the moment that the manager recaptures the bond in the form of cash (recall III), investors earn a trading gain of at least \$30,000 per quarter for a total of \$60,000 and also enjoy the benefit of \$60,000 in cash paid to the portfolio, for a total of \$120,000.125 The portfolio is clearly better off paying up for a quality-assuring performance bond. This mechanism is a reflection of reciprocity, a characteristic of human interaction so fundamental that for years it went unrecognized until economists, cognitive psychologists, and others identified its power and importance in all manner of trading relationships. 126

C. Soft Dollars as a Quality-Assuring Performance Bond and Efficient Research Subsidy

The use of a quality-assuring performance bond is subject to three competitive conditions that soft dollar brokerage clearly meets. 127 First, the bond must be large enough relative to expected commissions that the HQ broker earns no surplus and merely covers his forgone opportunities. Second, the bond must be nonsalvageable in the sense that the broker cannot recover it once he has paid it. Finally, the bond must take the form that provides the greatest possible value to the portfolio. With soft dollars the first condition is met because, holding the brokerage commission constant, brokers compete

¹²⁵ Cash commission recapture appears to occur in most cases only after the associated trades when the manager has failed to exhaust the performance bond in the form of brokerage and research services.

D. Bruce Johnsen, The Formation and Protection of Property Rights Among the Southern Kwakiutl

Indians, 15 JOURNAL OF LEGAL STUDIES 41 (1986); Elizabeth Hoffman et al., Behavioral Foundations of Reciprocity: Experimental Economics and Evolutionary Psychology, 36 ECON. INQUIRY 335, 338 (1998); D. Bruce Johnsen, Customary Law, Scientific Knowledge, and Fisheries Management among Northwest Coast Tribes, 10 N.Y.U. ENVIRONMENTAL LAW JOURNAL 1 (2001); Yoram Barzel, Michel A. Habib, and D. Bruce Johnsen, *Prevention is Better Than Cure: The Role of IPO Syndicates in Precluding Information* Acquisition (forthcoming, J. Bus. 2008). 127 Klein & Leffler.

vigorously for managers' business by offering larger soft dollar research payments. The second condition is met because the manager can insist the broker provide soft dollars up front 128 — whether in the form of third-party or in-house research — and any "commitment" he makes to use a particular broker's services is legally unenforceable as contrary to his fiduciary duty of best execution. A broker who is terminated for poor execution quality will lose its up-front bond. The remaining question is whether soft dollar research provides the greatest possible value to the portfolio. The answer is that investors benefit *more* if the bond takes the form of soft dollar research provided to the manager rather than an equivalent amount of cash paid into the portfolio.

To see this it is important to identify the main conflict of interest the manager faces. The extensive literature on the economics of agency uniformly recognizes that agents whose compensation is based on a fractional share of benefits to the principal have too little incentive to produce gains for the principal if they are required to pay the entire expense out of their own account. It is therefore in the principal's interest to subsidize inputs that complement the agent's labor effort in producing gains. Few corporate managers or other agents pay for their own business travel, office space and furniture, computers, telephone calls, copies, etc., because these and other inputs enhance their productivity. An alternative might be to increase their compensation by the expected cost of such inputs and to require them to bear the input expense directly. But unless the board can directly monitor their expenditures this would very likely lead them to be inefficiently frugal, to the detriment of corporate shareholders. Following this logic, in mutual funds investors' concern is not that managers will over-use brokerage and research services but that they will under-use them if required to pay the entire expense out of their own account. 129

¹²⁸ "The traditional soft dollar arrangement works on a simple formula: The soft dollar house provides research or other services to a trader in exchange for a certain amount of trading business *in the future*. The arrangement is normally defined by a ratio: say two dollars' worth of trading commissions for every dollar's worth of research." Jack Willoughby, *Autranet Angers Rivals Again with Soft Dollar Proposal; Suggests SEC Ban Commission Commitments*, Investment Dealers' Digest (February 20, 1995), at 5

Even an individual principal will decline to spend a dollar monitoring his agent if the benefits from improved agent decision making are less than a dollar, but the situation becomes especially acute where the principal consists of a securities portfolio whose investors are numerous and dispersed.

Contrary to prevailing wisdom, the critical conflict of interest for fund managers is that they will tend to spend too little on raw research, devote too little labor effort to identifying mispriced securities, and do too few profitable trades. ¹³⁰ If spending a dollar out of his own pocket on research yields a two-dollar increase in portfolio wealth but the manager receives only fifteen cents as his fractional share, he may decline to spend the dollar. The limiting case is known as "closet indexing," in which the manager collects a hefty fee for active management but instead indexes the entire portfolio, saving the cost of researching mispriced securities. This kind of underinvestment is generally known in the agency literature as the "shirking" problem. ¹³¹

The efficiency of the soft dollar research subsidy in overcoming the manager's tendency to shirk is illustrated in Figure 2. MC shows the marginal cost of active management inputs, consisting of the optimal combination of raw research inputs, manager labor effort to identify mispriced securities, and broker executions. As the manager increases management inputs, marginal cost rises while the increment to portfolio wealth declines, shown by ΔNAV. As a conflict-free benchmark, if the manager owns the entire portfolio and pays all the costs of generating profitable trades he continues providing management up to M^* , where $MC = \Delta NAV$, and total portfolio wealth is maximized. But because he receives only a small fractional share, θ , of ΔNAV he instead provides management inputs only up to M° , 132 where MC equals $\theta\Delta NAV$. This outcome fails to maximize the parties' joint wealth. Transaction costs to portfolio investors from monitoring the manager to ensure he refrains from shirking are prohibitive.

¹³⁰ They may also engage in sub-optimal monitoring of execution quality, but the use of a quality-assuring performance bond reduces this problem.

131 See Jensen & Meckling, *supra* n. ?.

¹³² It is important to note that managers' share of the portfolio residual is substantially larger than their periodic management fee for at least two reasons. First, they receive a recurring fee so that any permanent increase in portfolio wealth provides them with an increase in compensation equal to the present value of the increase in future fees. Second, several studies indicate that flows into funds (which increase total fees) are positively related to past performance Richard A. Ippolito, Market Solutions to Low Quality Producers: Evidence from the Mutual Fund Industry, 35 J. LAW & ECON. 45 (1992); Erik R. Sirri and Peter Tufano, Costly Search and Mutual Fund Flows, 53 J. FIN. 1589 (1998); and Judith Chevalier and Glen Ellison, Risk Taking by Mutual Funds as a Response to Incentives, 105 J.P.E. 1167 (1997)); Wermers (2001). As a result, managers tend to receive future benefits from performing well, but in any case, they are likely to underinvest in research if they are required to pay all research costs even after considering the effects of fund flows.

It is unsurprising that the beneficiaries of managed portfolios — whether fund investors, trust beneficiaries, or pension plan sponsors — routinely subsidize their managers' use of brokerage and allow them to bundle the cost of research and other services into the brokerage commission through some form of soft dollar arrangement. By paying brokerage commissions covering pure execution costs, the portfolio causes the manager's cost of inputs to fall, say, to MC-E, in which case he increases management to M[†]. By also allowing the manager to bundle the cost of research into the brokerage commission, the portfolio further reduces his management costs, say to MC-E-R. This encourages him to increase management inputs, perhaps all the way to M^{*}. With increased management, including research, the manager is likely to identify more profitable trading opportunities and to have good reason to order more portfolio trades. ¹³³

Managers earn no expected surplus as a result of the research subsidy because competition bids down their fees so they just cover their opportunity cost. The important point regarding incentive alignment is that, at the margin, bundling adjusts relative prices to encourage managers to do more research and more trading for the benefit of portfolio investors, ¹³⁴ and, at least where the manager receives the research up front, bundling specifically reduces the manager's cost of monitoring execution quality by raising the penalty the broker suffers from cheating.

It is entirely plausible soft dollars constitute a self-enforcing bond to assure high-quality brokerage execution and efficiently subsidize manager research. Given the subsidy, the possibility remains, of course, that managers use too much research and execution, perhaps going beyond M* in Figure 2. Where the manager receives third-party research in the form of generic inputs he has little to gain from overuse, however, because generic research has no intrinsic value unless he provides his own labor effort to transform it into conclusions regarding mispriced securities. Indeed, it may be that managers overuse full service brokers' in-house research, which often comes in the form

¹³³ See Tae-Young Paik and Pradyot K. Sen, *Project Evaluation and Control in Decentralized Firms: Is Capital Rationing always Optimal?*, 41 MGMT. SCI. 1404 (1995), whose results suggest that if research inputs, labor effort, and broker executions are complementary and normal inputs in portfolio management, subsidizing any single input will encourage managers to use more of all inputs.

This form of organization is known as a "two-part tariff in the economics literature. Walter Y. Oi, A Disney Land Dilemma: Two-Part Tariffs for a Mickey Mouse Monopoly, 85 Q.J. Econ. 77 (1971); Richard Schmalense, Monopolistic Two-Part Pricing Arrangements, 12 Bell J. Econ. 445 (1981).

of conclusions about which securities to buy or sell. Here, the *broker* provides the labor effort to identify mispriced securities, thereby allowing the manager to conserve his own resources. This suggests yet another conflict of interest managers may face, though it does not necessarily result in actual bad conduct or unjust enrichment. Conflicts of interest abound.

As reflected in the *Concept Release*, the SEC focus has been on fund expenses. It has steadfastly resisted any notion that shareholders' can assess manager performance and discipline bad behavior by redeeming their shares and taking their money elsewhere. That fund shareholders can do so was first proposed by Fama & Jensen, who saw the redemption option as akin to a partial "takeover" of fund capital. Theoretical and empirical work since then has uniformly demonstrated that fund flows are extremely sensitive to performance, that advisers and their managers actively compete on the basis of fees and other expenses, and that organizational innovation in the fund industry is alive and well. That few many fund shareholders have little actual knowledge of their manager's brokerage allocation decisions, or the total cost of transacting, is virtually irrelevant.

V. INVESTOR WELFARE

The preceding section relies on the unassailable assumption that institutional securities brokerage is not a standardized commodity whose attributes can be easily evaluated at the point of sale and whose price can be expected to equal marginal production cost. Rather, it is in an experience good. Transactions involving experience goods ordinarily require some measure of trust between the parties to a long-term relationship in which the temporal flow of reciprocal benefits is carefully designed to provide high-powered incentives. The price of an experience good must exceed marginal production cost to provide a premium sufficient to induce the seller to fulfill its implicit

¹³⁶ See articles cited *supra* n. ?, as well as Coates, John C., and R. Glenn Hubbard, *Concentration in the Mutual Fund Industry: Evidence and Implications for Policy* (John M. Olin Center for Law & Business, Harvard University, discussion paper No. 592, August 2007) and D. Bruce Johnsen, A Closer Look at Mutual Fund Advisory Fees (GMU School of Law Working paper).

¹³⁵ Fama & Jensen, *supra* n. ?

promise to provide high quality. As Judge Posner explicitly recognized in *Wsol v. FMA* (2001), ¹³⁷ cutting commissions to the execution-only rate is not an option available to the parties.

Statements by former Senator Fitzgerald (R-Illinois), the SEC, and others arguing that portfolio managers could realistically pay the lowest available brokerage commissions with no loss to investors are based on a naïve and out-dated economic model of exchange of standardized commodities in which the cost of transacting is assumed to be zero. The SEC's repeated expression of hope that the execution of institutional securities trades can be completely unbundled from research and other services is similarly misguided. It fails to recognize that the parties to institutional securities brokerage have every incentive to eliminate bundling if it fails to maximize the gains from trade, net of transaction costs. That they routinely decline to do so in such an intensely competitive industry suggests they are constrained by significant transaction costs.

Once the cost of transacting is considered, soft dollars appear to provide managers and brokers with high-powered incentives to properly act on investors' behalf. The arrangements can be structured in a way that forces brokers to assure execution quality by posting an up-front performance bond whose payback is conditional on manager satisfaction. A soft dollar research bond appears likely to benefit investors by efficiently subsidizing managers to research profitable portfolio trades and to efficiently execute those trades. Conditional on the broker providing an up-front bond, investor welfare is

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¹³⁷ Wsol v. Fiduciary Management Associates, Inc., and East West Institutional Services, Inc., 266 F.3d 654 (Seventh Circuit, 2001) ("In either case, FMA, which is to say the fund, would have paid 6 cents a share per trade; that is the standard fee and there is no proof that FMA could have obtained comparable trading services for less").

There is no doubt market participants are attempting to move to unbundling. Massachusetts Financial Services, Fidelity Management and Research, American Century Funds, and several other large advisory firms have stated their intent to pay an execution-only rate for brokerage and to bear the entire cost of portfolio research out of their own account. See John Hechinger, *MFS Ends 'Soft Dollar' Payments on Concerns over Ethics*, Wall Street Journal, March 16, 2004, at C1, *supra* n. ? Gregg Greenberg, Fidelity Continues Unbundling, The Street.com, December 20, 2005, at http://www.thestreet.com/yahoopi/funds/funds/10258409.html?cm_ven=QUIGO&cm_cat=FREE&cm_ite=NA. But there is also no doubt their success at doing so relies heavily on their refined ability to accurately assess execution quality using various proprietary methods. These methods are unavailable to many smaller advisory firms. Regulation that artificially mandates unbundling will put these firms at a competitive disadvantage and very likely injure investors.

served as long as the manager spends each soft dollar on items that, in his good faith belief, yield more than a dollar in expected benefits to investors. Investor welfare is served if cash commission recapture occurs only after all such beneficial opportunities have been exhausted. Certain brokerage and research services clearly qualify for this "net benefit" test. This is no doubt why Congress saw fit to provide managers with a statutory safe harbor where the increased commission they pay is "reasonable in relation to the value of the brokerage and research services" they receive. It is probable, however, that products and services falling outside the interpretation set out in the *Guidance* also meet the net benefit test. If Section 28(e) is truly a safe harbor, such items are not necessarily illegal or civilly actionable.

The effect of soft dollars and other forms of research bundling on investor welfare is ultimately an empirical question, on which only limited published work has been done. One study purports to measure the difference in transaction costs between soft dollar brokers and other kinds of institutional brokers. 139 They find the total transaction costs for soft dollar brokers - including explicit brokerage fees, price impact, and the opportunity cost of delayed execution — are generally higher than for other institutional brokers after adjusting for trade difficulty (order size) and other factors. Absent evidence regarding the relative benefits of the research managers and investors receive from each of these forms of bundled brokerage, they are unwilling to conclude soft dollar brokerage harms investors on net balance. More to the point, their database only crudely differentiates soft dollar brokerage from these other forms of brokerage because all institutional brokers do a substantial amount of their business pursuant to soft dollar arrangements and in any event routinely bundle in-house research into a single premium brokerage commission. 140 At best their analysis addresses the merits of third-party research relative to in-house research. It simply fails to address the critical question, which is whether or not bundling research into brokerage commissions harms investors.

¹³⁹ Jennifer. S. Conrad, Kevin M. Johnson, and Sunil S. Wahal, S., Institutional Trading and Soft Dollars, 56 J. Fin. 397 (2001).

¹⁴⁰ At best, their results suggest that vertically disintegrating the production of private information from the brokerage house to the management firm (supported by third-party research products) leads to an increase in the transaction costs of securities trading. But no one has criticized soft dollars because they result in vertical disintegration, only because soft dollar bundling maligns managers' incentives. These results completely fail to address the effects of bundling, *per se*, on transaction costs or investor welfare.

More recently, Horan & Johnsen examine the effect of paying up for brokerage on a sample of private money managers' portfolio returns. After adjusting for various factors likely to affect execution costs and returns, they find that managers who pay higher premium commissions per dollar under management generate higher portfolio returns. They also find that management fees do not decline as a manager's use of premium commissions increases, contrary to the concern the SEC expressed in its *1996 Disclosure Proposal*. If soft dollars allow managers to unjustly enrich themselves, consistent with the SEC's concern in its *1995 Disclosure Proposal*, the associated rents would be competed away in the managerial labor market, leading to lower fees. Both of these empirical findings are consistent with the hypothesis that bundling benefits investors by assuring the quality of brokerage executions and efficiently subsidizing manager research. They are inconsistent with the hypothesis that bundling harms investors by allowing managers to unjustly enrich themselves.

The policy favored by a chorus of soft dollar critics, including SEC Chairman Cox, would be to eliminate the Section 28(e) safe harbor entirely. This would very likely raise at least two countervailing conflicts of interests. First, it would lead portfolio managers either to shift toward low-quality brokerage that increases price impact more than the reduction in brokerage commissions or to spend added time and attention monitoring brokers at the risk of missing trading opportunities. Second, it would lead to an increase in advisory fees to compensate managers for their higher out-of-pocket research costs but would weaken their marginal incentives to identify profitable trades for the benefit of investors. If, as the analysis in this paper suggests, soft dollar bundling is an efficient research subsidy the increase in fees would exceed the expected cost of bundled-in research. Both sacrifice investment performance.

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¹⁴¹ Stephen M. Horan and D. Bruce Johnsen, *Can Third-Party Payments Benefit the Principal: The Case of Soft Dollar Brokerage*, INTL. REV. LAW & ECON. (forthcoming, 2008). Private money managers consist primarily of pension fund managers, but also include the managers of private trusts, hedge funds, private equity funds, etc.

¹⁴² See supra at?

¹⁴³ "Advisers that do not engage in soft dollar arrangements may be put at a competitive disadvantage if they pay for services with hard dollars and attempt to pass the cost of these services on to clients through higher fees."

A. The 2006 Guidance: Salient Points, Economic Irrelevance

The SEC's long awaited 2006 Guidance helps credit it with having done something in response to the Spitzer-inspired mutual fund scandals, but as a laundry list of formalistic rules unsupported by economic analysis it provides little in the way of demonstrable benefits to investors. On many issues it flatly contradicts itself, the statute, existing common law, and the SEC's prior findings of Congressional intent in passing 28(e). Perhaps more important, by requiring managers to document their good faith in allocating brokerage it completely negates the safe harbor's primary purpose, which is to raise a presumption that managers have acted properly and to impose the burden of proof on those who might claim otherwise. Though by no means exhaustive, this subsection reviews several of the Guidance's more salient deficiencies in light of the economic analysis from Section IV.

1. The Common Law Antecedents of 28(e)?

Recall the SEC's 1986 Interpretive Release expanding the scope of the safe harbor. It observed that the looming abolition of fixed commissions in May, 1975, led money managers and institutional brokers to express concern to Congress that they would be exposed to suits for breach of fiduciary duty if managers continued to pay brokers more than the lowest available commission. In the SEC words,

"[t]his concern was based on the traditional fiduciary principle that a fiduciary cannot use trust assets to benefit himself. The purchase of research with the commission dollars of a beneficiary or a client, even if used for the benefit of the beneficiary or the client, could be viewed as also benefiting the money manager in that he was being relieved of the obligation to produce the research himself or to purchase it with his own money." ¹⁴⁴

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¹⁴⁴ 1986 Interpretive Release, at around nn. 3-4, supra n. ?.

To justify narrowing the safe harbor in its 2006 Guidance, the SEC went one step further, finding that money managers who pay up for brokerage face significant conflicts of interest prohibited under the common law of trusts. Citing Section 170 of the Restatement, Second, of Trusts for the proposition that trustees must act "solely in the interest of the beneficiaries," the Guidance concludes that "[t]he fundamental obligation of the adviser to act in the best interest of his client . . . generally precludes the adviser from using client assets for the adviser's own benefit or the benefit of other clients, at least without client consent." It concludes that soft dollar bundling would violate trust law absent safe harbor protection.

This conclusion is baffling for its failure to mention other relevant passages from the *Restatement*, as well as other sources of relevant law. The comments following Section 170 make clear that the nature of the precluded "benefits" to which it refers involves situations in which the trustee "profit[s] at the expense of the beneficiary [or] . . enter[s] into competition with him." A representative example includes sale by the trustee of trust property to himself, either directly or indirectly. Even ignoring the likely benefits investors enjoy from soft dollars as a result of the economic incentives they provide, it is implausible to suggest they ordinarily allow managers to "profit" at investors' expense in the sense covered by Section 170.

This is obvious from the language of Section 244, which the SEC fails to acknowledge. It states that "[t]he trustee is entitled to indemnity out of the trust estate for expenses properly incurred by him in the administration of the trust." Comment b to Section 244 goes on to explain that

"[i]f the trustee properly incurs a liability in the administration of the trust, he is entitled to indemnity out of the trust estate either by way of exoneration, that is by using trust property in discharging the liability so that he will not be compelled to use his individual property in discharging it, or by way of reimbursement, that is if he has used his individual

¹⁴⁵ Section 170 reads "Duty of Loyalty [as Revised]: (1) The trustee is under a duty to administer the trust solely in the interest of the beneficiaries. (2) The trustee in dealing with a beneficiary on the trustee's own account is under a duty to deal fairly and to communicate to the beneficiary all material facts the trustee knows or should know in connection with the transaction." *Restatement (Second) of Trusts* (1959).

¹⁴⁶ Citing Restatement (Second) of Trusts (1959), 2006 Guidance, at n. 3 (FR 41978)

property in discharging the liability, by repaying himself out of trust property." ¹⁴⁷

Bundled-in research provides managers with a benefit only to the extent it relieves them of the burden of paying for the same research out of their own pockets. Section 244 squarely contradicts the SEC's claim that receipt of such benefits is contrary to trust law. Unless managers receive benefits to the *exclusion* of investors, as where the broker provides the managers with personal benefits that have no *bona fide* business purpose, no self dealing has occurred and no suit for fiduciary breach is warranted under the common law of trusts. The SEC and others have identified instances in which soft dollars were used for such self dealing. This doubtless happens from time to time, but there is no evidence in the public record to suggest it presents a systemic problem sufficient to require either a narrowing of the safe harbor or its total elimination. In any organization, self seeking people press the limits and step over the line of propriety from time to time. Some even steal. But these actions are normally punished internally, and in any event the SEC's *2006 Guidance* does not even attempt to target such conduct. It targets conduct otherwise considered "lawful and appropriate."

The rules requiring trust beneficiaries to indemnify trustees out of trust assets is by no means peculiar, having a close parallel in the common law of agency. Section 428 of the *Restatement, Second, of Agency* observes that

"(1) A principal is under a duty to indemnify the agent in accordance with the terms of the agreement with him; (2) In the absence of terms to the contrary in the agreement of employment, the principal has a duty to indemnify the agent where the agent, (a) makes a payment authorized or made necessary in executing the principal's affairs or, unless he is officious, *one beneficial to the principal* [emphasis added], or, (b) suffers a loss which, because of their relation, it is fair that the principal should bear."

Comment b to this section, titled "Reimbursement, exoneration, and subrogation," continues on to find that

¹⁴⁷ Restatement (Second) of Trusts (1959)

¹⁴⁸ See *1998 OCIE Report*; WSJ article on Cox letter, *supra*; Kara Scannell, Susanne Craig, and Jennifer Levitz, *'Gifts' Case Nabs a Star*, WALL STREET JOURNAL, Thursday, March 6, 2008, at C1..

"[t]he agent's right of indemnity always includes a right to reimbursement for amounts properly paid or losses suffered without his fault in transactions authorized by the principal. This right arises at the time when the agent makes an authorized payment, or suffers a loss, without his fault. In some cases, he has only a right of reimbursement, as where he specially agrees to use his own assets to pay claims arising against himself or the principal, or where such an agreement can be inferred by the *customs of business* [emphasis added] or prior dealings between the parties. . . ."

General corporate law principals, which derive from the common law of agency, are thought to provide fiduciaries with greater leeway than trust law, and they are a more appropriate guide for assessing active portfolio managers' fiduciary duty to generate profitable securities trades and to otherwise manage portfolio assets. Trustees' primary charge is to preserve the corpus of the trust by taking care with investor assets, while both the managers of operating corporations and active portfolio managers are expected to increase the corpus by making risky investments. With risky investments there is always a substantial chance a bad state of the world will come to pass and the investment will fail.

To avoid hindsight bias in suits for breach of fiduciary duty, state common law provides corporate managers with protection under the business judgment rule. It raises a rebuttable presumption managers made their decisions in good faith, acted with due care,

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"[i]n general, the duties of a trustee to trust beneficiaries, such as loyalty, good faith, and due care, while broadly similar to those of a corporate director to his corporation, are different in significant respects. Corporate directors are responsible for often complex and demanding decisions relating to the operations of business institutions. The nature of business competition insures that these directors will often be required to take risks with the assets they manage. Indeed, an unwillingness to take risks prudently is inconsistent with the role of a diligent director. The trustees role is quite different. The role of the trustee is prudently to manage assets placed in trust, within the parameters set down in the trust instrument. The classic trusteeship is not essentially a risk taking enterprise, but a caretaking one."

Cinerama, Inc. v. Technicolor, Inc., 663 A.2d 1134 (1994). Being called on to perform investment research and make risky investment decisions, managers should not be held to the same strict standard as a trustee. Given that the Restatement of Trusts explicitly allows a trustee to deduct expenses from the trust by way of either exoneration or reimbursement, the same should apply to investment managers absent specific agreement to the contrary, especially where doing so is consistent with established business custom or the parties' prior dealings.

¹⁴⁹ As Chancellor Allen aptly put it,

had no interest in the subject matter of the decision, were informed to the extent they reasonably believed appropriate under the circumstances, and rationally believed the decision to have been in the best interest of the corporation. It is up to the party challenging the fiduciary's conduct to rebut any one or all of these business judgment rule presumptions. Nowhere in the common law does the fiduciary have any burden of proof *ab initio*. And in any event once an adverse party rebuts any of the business judgment rule presumptions the fiduciary has the ability to avoid liability by proving entire fairness. Isl

Needless to say, the managers of operating corporations are free to charge virtually all the expenses of management to the firm, either by way of exoneration or reimbursement. Doing so in no way removes business judgment rule presumptions. There is no doubt a fund adviser (and the fund manager) is a fiduciary under the ICA, and nothing in the Act suggests the business judgment rule is in any way superseded. Notwithstanding the ICA's statutorily imposed fiction the advisory firm is legally separate from the mutual fund, it is difficult to see how a portfolio manager who pays up in exchange for broker-provided benefits he sincerely believes will improve portfolio performance would violate a fiduciary duty, especially if he acts within policies established by the fund's board. This conclusion holds even in the absence of Section 28(e)'s safe harbor and irrespective of the SEC's interpretation of its scope.

Ordinarily, whether the manager's receipt of benefits violates a fiduciary duty depends on what the advisory contract or board policy explicitly authorizes. To the extent the advisory contract and board policy are silent on the subject, established business custom and the prior dealings of the parties are used to determine the legitimacy of managers' conduct. It is beyond question that paying up for research and other benefits was a longstanding business custom well before the deregulation of fixed commissions, very likely dating back to the dawn of securities trading. That the broker's provision of research can be used to bond the quality of his executions while discouraging the manager from spending too little on investment research strongly

¹⁵⁰ Charles R.T. O'Kelley and Robert B. Thompson, *Corporations and Other Business Associations: Cases and Materials* (Aspen, 5th Ed., 2006: New York), at 236.

¹⁵¹ See., e.g., Cede & Co. v. Technicolor, Inc., 884 A.2d 26 (Del. S. Ct., 2005)

reinforces the conclusion that there is nothing actionable under the common law about paying up for broker-provided items reasonably expected to benefit the fund.

Rather than a detailed list of specific contractual rules, the fiduciary duty constitutes a broad standard of conduct that economizes on transaction costs by filling gaps resulting from the prohibitive cost of complete contracting. The economic function of the fiduciary duty is to relieve the parties, both principal and agent, from the burden of having to contract over every detail of their ongoing relationship. Possible breaches are assessed ex post only when a bad outcome finds the agent and principal in an adversarial setting. It makes little sense to hold fund advisers to a fiduciary duty if the SEC is going to prescribe every detail of the adviser-fund-investor relationship. Contracting with and monitoring the advisor is the function of the fund's board of directors, at least 40% of which must be independent of the advisory firm under Section 10(a) of the ICA. That investors quickly move their money out of poorly performing funds suggests that competitive forces will favor funds whose boards engage in efficient contracting and monitoring and punish those that do not.

2. Research Services: Outputs versus Inputs

The *Guidance* expresses the intent to treat proprietary in-house research and research supplied by independent third-party venders equally under the safe harbor. Yet it goes on to find, with only one exception, that protected "research services" are limited to "advice," "analyses," and "reports" reflecting the expression of "reasoning or knowledge." This interpretation comprehends the phrase "brokerage and research services" in the narrowest possible terms rather than in the "broadest possible terms," which plainly contradicts the SEC's recitation of Congressional intent in its *1986 Interpreting Release*. Advice, analyses, and reports are in the nature of *outputs* resulting from the combination of raw research *inputs* and the *broker's* labor effort, traditionally produced and supplied as in-house research. Research inputs, on the other hand, are

¹⁵² See Frank H. Easterbrook and Daniel R. Fischel, The Economic Structure of Corporate Law (Harvard University Press: London, Cambridge, 1991).

¹⁵³ 15 U.S.C. § 80a-10(a)

disproportionately produced by independent third-party research vendors and supplied to fund managers by full-service and soft dollar brokers alike. The *Guidance* explicitly excludes from safe harbor protection a host of generic but potentially useful research inputs such as subscriptions to mass marketed publications, travel to conferences and to visit corporate offices, and inherently tangible products or services such as computer hardware and dedicated telephone lines used exclusively to transmit research.

Research that reflects the expression of reasoning and knowledge falls on a continuum, with exclusive access to a full-service broker's in-house stock picks at one extreme and generic research inputs such as mass marketed publications at the other. 154 A parallel continuum is one involving the manager's labor effort. A manager who gains exclusive access to a full-service broker's stock picks need not put much of his own labor effort into the investment decision making process to generate adequate portfolio returns. This could be regarded as a countervailing conflict of interest to the extent the manager pays up for research to avoid the labor effort necessary to arrive at profitable stock picks. 155 At the other end of the continuum, a manager who relies exclusively on generic inputs must put forth a great deal of his own labor effort in the investment decision making process to generate the same returns. He has nothing to gain by ordering generic research inputs if he has no intention of contributing his own labor effort, unless of course the research has value to him apart from the investment decision making process. In that case the manager would risk running afoul of agency law, trust law, and any of the SEC's past or present interpretations of Section 28(e)'s scope. The pressing concern is that the Guidance screens out too much, forcing managers to leave money on the table and depriving investors of the associated benefits.

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¹⁵⁴ In theory, it is possible that third-party vendors will try to sell stock picks. The problem is that the buyer never knows where he stands on the vendor's priority list. Did he receive the first call from the vendor or the last call? What is called the "favoritism problem" reflects a fundamental conflict of interest in transacting conclusory investment research in the spot market. Even if the research is potentially profitable the manager must make the associated trades without too much price impact, for which the research vendor would appear to have no responsibility. By seeking research in the form of stock picks from full-service brokers who will also execute the associated trades, the manager better aligns the brokers' incentives to generate profitable trades net of transaction costs.

¹⁵⁵ In extreme cases, such shirking may be civilly actionable under state law. "Sloth could certainly be an appropriate addition to that incomplete list if it constitutes a systematic or sustained shirking of duty." In re the Walt Disney Company Derivative Litigation, 907 A.2d 693 (2005). The problem with such claims is that judicial measurement costs may be overwhelming.

The single exception to the generic input exclusion is for "market data" provided through tangible media such as Quotron machines or Bloomberg terminals (descendants of the original "ticker-tape" machine). The Guidance claims this exception levels the playing field between managers who use raw data to generate their own stock picks and those who receive stock picks through full-service brokers' in-house research. While it is true that this exception moves in the direction of leveling the playing field, the SEC gives no explanation why this is the appropriate stopping point. Why not other kinds of useful computer hardware? Why not subscriptions to mass-marketed publications that contain stock price quotes and other relevant news? Why not travel to meet with operating company managers or to conferences? Any suggestion that market data terminals are unique because they have been historically supplied by brokers is economically irrelevant, especially in light of the SEC's view that innovation in the field of research provision will, and presumably should, occur. It also fails to acknowledge that in the vast majority of principal-agent relations, principals subsidize their agents' use of such inputs. Indeed, this is the default rule under the common law of agency and trusts, as we have already seen.

If the *protected* brokerage and research services a manager receives fail to exhaust the broker's performance bond, the manager should be encouraged to spend the remaining soft dollars on any inputs that provide investors with net benefits. Only if he has exhausted such opportunities is it in investors' interest for him to recapture the bond in the form of cash. This conclusion holds regardless of whether the inputs in question can be characterized as "overhead" expenses for accounting purposes or whether the advisor is a legally separate firm. Note that to the extent investors subsidize such inputs, over the long run advisory fees will adjust downward to ensure managers earn only a competitive wage. But to the extent managers would otherwise underinvest in such inputs (*i.e.*, a subsidy is efficient) the reduction in brokerage commissions will fall short of the increase in management fees.

The distinction between research inputs that constitute overhead and those that do not is economically misguided, especially given the SEC's acknowledgement that the form in which brokerage and research services are delivered is more or less malleable,

what biologists and some economists refer to as "plasticity." Recall the arrangement in *Investors Information Incorporated*, for example, in which, as a third-party vendor, III packaged brokerage selection services with various generic research inputs excluded from safe harbor protection under the then-current "readily and customarily available . . . to the general public on a commercial basis" standard. Early on, this demonstrated market participants' remarkable ingenuity at designing products and services around an existing legal standard. Recall, also, the SEC's finding that excluding market data from safe harbor protection might encourage "purveyors of this information to simply add some minimal or inconsequential functionality to the data to bring it within the safe harbor."

Abstracting from questions regarding the scope of safe harbor protection, managers are generally indifferent to the form in which they receive research services; their concern is with the underlying substance. Market participants have tremendous latitude in selecting the form, especially over the long run. In economics, one such choice is whether to generate a given level of output by incurring large up-front fixed costs (so-called "overhead") and low ongoing variable costs or, instead, to incur low fixed costs and high variable costs. By excluding overhead from safe harbor protection, the *Guidance* encourages advisers to make socially inefficient substitution decisions when contemplating the trade-off between fixed and variable costs. Nothing in the *Guidance* suggests the SEC is even aware of this conflict of interest, let alone that it adequately considered it when arriving at its interpretation.

Suppose a manager has the opportunity to invest \$10 on equipment the *Guidance* would exclude as overhead. The manager would have to pay this expense out of his own pocket. Suppose, also, that this investment would reduce by \$100 the discounted present value of the broker-provided research services protected under the *Guidance*. At the margin, the *Guidance* tips the manager in favor of substituting low-overheard-high-variable-cost research for more efficient high-overhead-low-variable-cost research.

¹⁵⁶ See, e.g., Jack Hirshleifer, Economics from a Biological Viewpoint, 20 J. LAW & ECON. 1 (1977).

¹⁵⁷ It is well-settled in economics that holding real income constant people consumers (producers) will substitute away from goods (productive inputs) whose relative price increases.

Investors suffer.¹⁵⁸ There is no way to escape economic substitution and no way to hold the manager responsible for failing to make an investment that he never formally considered or even bothered to identify because it was not in his interest to do so. Because of the inability of either boards of directors or the SEC to identify alternative actions not taken, managers must be given a zone of discretion to optimize on shareholders' behalf. This is exactly what the safe harbor (and the business judgment rule) was designed to protect.

Having the SEC prescribe the details of managers' decisions in a dynamic business environment can hardly be conducive to investor welfare. At some point, the SEC must recognize and rely on the market's ability to punish indiscrete manager actions with poor performance and shareholder redemptions.¹⁵⁹

3. Brokerage Services

The *Guidance* establishes what it describes as a "temporal standard" for determining the eligibility of "brokerage services" for safe harbor protection. According to this standard, "brokerage begins when the money manager communicates with the broker-dealer for the purpose of transmitting an order for execution and ends when funds or securities are delivered or credited to the advised account or the account holder's agent." This standard is contradicts the statue and is economically irrelevant. First, it fails to recognize the underlying reality of managers' trading strategies, which often involve breaking information-based trades of a given size into smaller orders. To

marginally away from it. This cannot possibly benefit fund shareholders.

The substitution problem applies to virtually the entire laundry list of brokerage and research services excluded under the *Guidance*. Travel to meet with the operating corporation executives is a powerful case on point. Under some circumstances, "face time" with corporate executives can be one of the most beneficial investments a portfolio manager can make on behalf of his fund. Yet many people view travel as personally tiring, tedious, distracting, and even scary -i.e., it comes at a high personal cost to the manager. By excluding travel expenses from safe harbor protection the *Guidance* will cause managers to adjust

¹⁵⁹ The same applies to the SEC's finding in its *2001 Interpretive Release* that only transactions in which the dealer spread is quantifiable are eligible for safe harbor protection. There is no doubt that over the course of repeated transactions with a broker a prudent manager can assess the reasonableness of any excess spread in relation to the value of the brokerage and research services he receives even if he is unable to quantify the exact spread in any given trade. Managers who fail in this regard will suffer poor fund performance and shareholder redemptions compared to those who succeed.

¹⁶⁰ *2006 Guidance*, at 41989.

disguise his intentions, a prudent manager will often parse these orders out to different brokers over a span of days or even weeks. Any suggestion that his receipt of services in connection with each separate order must meet the temporal standard contradicts Section 28(e), which protects a manager's brokerage allocation decision in "either that particular transaction or his overall responsibilities with respect to the accounts as to which he exercises investment discretion." The plain meaning of "overall responsibilities" surely contemplates both multiple accounts under the manager's control and the manager's intertemporal strategic brokerage allocation decisions with respect to each account.

Second, the temporal standard fails to recognize the importance of the manager-broker relationship, what economists and others have characterized as "relational contracts." ¹⁶¹ By definition, a relational contract is no contract at all because the parties' mutual obligations are too difficult to verify to a court of law. Instead, the parties' perform their obligations sequentially. Trade in experience goods is facilitated by a long course of repeat interactions in which the flow of reciprocal benefits cannot be uniquely attributed to any specific transaction or time period. Rather than assessing price impact on each order executed by a given broker, prudence requires the manager to trust his brokers and instead assess their performance over an extended trading relationship. The up-front bond inherent in soft dollars facilitates such a strategy.

When transacting experience goods through relational contracts, the parties must expect a reciprocal flow of economic rents that gives them something to lose from termination, that ensures they will refrain from cheating by delivering deceptively low quality, and that, in general, they will cooperate on a host of difficult-to-specify dimensions of their long-term relationship. The economic reality under such circumstances is that managers must have a zone of discretion within which their conduct cannot be second-guessed. And yet the SEC appears intent on adhering to the misguided belief that institutional brokerage is a standardized commodity — a *search* good — whose dimensions can be easily assessed at the point of sale and that investors uniformly benefit from detailed regulatory prescriptions. The parallel assumption is that any long-term

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¹⁶¹ Charles J. Goetz and Robert E. Scott, *Principles of Relational Contracts*, 67 VA. L. REV. 1089 (1981); George Baker, Robert Gibbons, Kevin J. Murphy, *Relational Contracts and the Theory of the Firm* (forthcoming Q.J.E.).

trust, loyalty, or reciprocity between the parties necessarily comes at investors' expense. Nothing could be further from the truth.

Finally, the temporal standard ignores the pervasive substitution problem. While it is true, as the *Guidance* asserts, that specialization has led to functional separation between brokerage and research in many settings — as with in-house and third-party research — in many settings the two are impossible to separate. The assumption implicit in the *Guidance* is that identifying mispriced securities is the singular goal of investment research. As the SEC's *Concept Release* makes clear, however, any potentially profitable trade (which will normally involve a large block of securities) is likely to suffer some measure of price impact. As the model in Part IV shows, paying up for brokerage can limit the problem. Both investment research and brokerage contribute to portfolio returns. They are complementary inputs subject to economic substitution, and it is therefore risky to treat them as distinct in all settings. Nothing in the *Guidance* suggests the SEC is aware of this risk in prescribing a formalistic laundry list of included and excluded brokerage and research services.

Two categories of services excluded under the temporal standard as "overhead" are compliance and error correction trades. The *Guidance* states that

"managers may not use client commissions under the safe harbor to meet their compliance responsibilities, such as: (i) Performing compliance tests that analyze the quality of brokerage executions (for the purpose of evaluating the manager's fulfillment of its duty of best execution), an analysis of the portfolio turnover rate, or an analysis of the comparative performance of similarly managed accounts (to detect favoritism, misallocation of investment opportunities, or other breaches of fiduciary responsibilities)" ¹⁶³

¹⁶² "Virtually all the major institutions have a transaction-cost measuring system in place. They compare their actual execution costs to pre-trade benchmarks from models or peer comparisons from different firms. That puts pressure on the trading desks to control costs. So the guys who aren't doing it are being left behind." . . . ". . . [M]ore pension funds and investment managers are measuring transaction costs -- either by using proprietary systems or third party services Since the wrenching bear market of 2000 - '02, institutions have learned that transaction costs can be a significant drag on performance, and they have begun managing them as intently as they research stocks." *Concept Release*, *supra* n. ?, at n. 32. ¹⁶³ 2006 Guidance, at 41990.

Having to pay the expenses associated with compliance out of their own pocket is likely to cause managers to inefficiently substitute away from such activity. More concretely, the conclusion that compliance expenditures are excluded from the safe harbor directly contradicts its clear terms. Section 28(3)(C) states that "brokerage and research services" include "functions incidental thereto . . . or *required in connection therewith by rules of the Commission*" [emphasis added]. The irony is worth noting; the *Guidance* compounds managers' compliance burden with respect to brokerage allocation and at the same time, contrary to the language of the statute, removes safe harbor protection for compliance expenditures.

It is unsurprising to hear that over the course of hundreds or even thousands of trades, a fund manager and an executing broker will miscommunicate about some attribute of a trade now and then, even if both exercise due professional care. The broker may trade a security for the manager that the manager did not intend to trade or fail to trade one the manager intended to trade. In the fast-paced institutional trading world, mistakes happen that cannot be attributed to anyone's *fault*. Given the extended trading relationship soft dollar brokerage entails, one way for the parties to address this situation is for the broker to swallow the cost as an expression of reciprocity. He can do this by correcting the original trade at a price that is favorable to the portfolio at the time of the correction. This is likely to be costly for the broker, and in the past managers and brokers have agreed to charge some or all of the cost against the manager's soft dollar balance.

According to the *Guidance*, the cost of such error correction trades is excluded from Section 28(e)(3)(C) because they are "separate transactions to correct the manager's error, not to benefit the advised account, and thus . . . are properly characterized as "overhead," *i.e.*, part of the manager's cost of doing business." Not only does this ruling explicitly contradict the common law of trusts quoted above ("[i]f the trustee properly incurs a liability in the administration of the trust, he is entitled to indemnity out of the trust estate"), but it ignores the substitution problem and neglects the important role of long-term relations. Recall the SEC's *Concept Release*, which formally states that the "opportunity cost of delay" is one of the implicit transaction costs that can drag down

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¹⁶⁴ 2006 Guidance, at 41990.

portfolio performance. The last thing shareholders want is for their active portfolio manager to exercise too much administrative caution trading securities when there are better ways to handle trading errors such as relational trust. Excess caution by a manager will lead to missed opportunities to generate trading profits. In the limit, the manager might avoid all trading errors by never trading. Shareholders may therefore want to subsidize the correction of trading errors as long as the manager will not otherwise exhaust his soft dollar performance bond on other brokerage and research services. It is entirely plausible error correction meets the net benefit test. Managers who use error correction trades efficiently will generate higher portfolio returns than those who do not, and investors will favor them by subscribing to their funds.

4. Mixed Use Items and Good Faith

The *Guidance* states that managers who want to avail themselves of the safe harbor must "make a good faith determination that the commissions paid are reasonable in relation to the value of the brokerage and research services received. . . [T]he burden of proof in demonstrating this determination rests on the money manager." ¹⁶⁵ In reaching the conclusion that safe harbor protection requires the manager to prove his good faith determination, the *Guidance* cites a 1975 House Report stating that "[i]t is, of course, expected that money managers . . . would stand ready and be required to demonstrate that such expenditures were *bona fide*." ¹⁶⁶ Nothing in the language of the statute remotely suggests that the manager has the burden of proving his own good faith. Section 28(e)(2) gives the SEC discretion only to require that the manager disclose his "policies and practices." It is virtually impossible to affirmatively prove one's subjective state of mind. This interpretation of *bona fide* is completely contrary to the purpose of the safe harbor, which is to raise a presumption the manager acted in the best interest of investors as long as various objective criteria are met, such as that the services he receives are reasonably viewed as brokerage and research. A far more natural

¹⁶⁵ 2006 Guidance, at 41991.

¹⁶⁶ 2006 Guidance, at 41991.

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interpretation of the term "bona fide" in the House Report is that a reasonable man would conclude the services in question provide a plausible net benefit to the portfolio, that is, they are not an obvious sham intended to benefit the manager at shareholders' expense. 167

The Guidance requires that the manager make a good faith reasonable allocation of the cost of mixed use items as well. Where the adviser uses analyses of account performance for both investment decision-making and for the purpose of marketing fund shares to investors, for example, he may use client commissions to pay only for the investment decision-making aspect and must pay for the marketing component out of his own account. The Guidance repeats this good faith allocation requirement throughout its laundry-list of mixed-use items. Yet, in economics there is no proper way to allocate costs between jointly produced outputs — in this case the analysis of account performance (the input) for investment decision-making (an output) as opposed to the marketing of fund shares (also an output).

A manager may be able to state in good faith that "but for" his use of the analysis of account performance for investment decision-making he would not have ordered it. If so, its after-the-fact or incidental use for marketing purposes is nonrivalrous and involves a zero marginal cost — it is, essentially, a free good with respect to the marketing of fund shares, costing investors nothing. 168 Making any such allocation in an economically meaningful way is as much art as science. This, again, is exactly why managers must be given a zone of discretion in making such decisions, quite possibly according to policies determined in advance and policed by the board of directors. The SEC neither has the practical business experience nor the resources to properly prescribe such decisions in a dynamic marketplace.

B. Legal Status of the Guidance

¹⁶⁷ Female escorts and bags of illegal drugs are a recent case in point. See Kara Scannell, Susanne Craig, and Jennifer Levitz, 'Gifts' Case Nabs a Star, WALL STREET JOURNAL, Thursday, March 6, 2008, at C1. ¹⁶⁸ This conclusion is consistent with the SEC's reasoning in its 1995 Disclosure Proposal, at n. 46.

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It may be, as the SEC observed in its 1986 Interpretive Release and reiterated in the 2006 Guidance, that support from advisers and brokers for the safe harbor arose out of an excess of caution given uncertainty regarding the contours of managers' fiduciary duty when freely negotiated commissions loomed in 1975. 169 Perhaps market participants were legitimately concerned that paying up for research would be considered by courts to constitute an exclusive benefit that would negate their business judgment rule presumption of good faith. Perhaps the safe harbor was designed as a redundant check on strike suits hoping to overcome business judgment rule presumptions. Far more likely as a cause for concern is the onerous specter of criminal sanctions under Section 17(e) of the ICA. Addressing conflicts of interest in agency transactions, it reads in relevant part:

"It shall be unlawful for . . . any affiliated person . . . acting as an agent, to accept from any source any compensation (other than a regular salary or wages from such registered investment company) for the purchase or sale of any property to or for such registered investment company or any controlled company thereof, except in the course of such person's business as an underwriter or broker . . . "170

As one federal judge noted early on, "Section 17(e) is far from a model of clarity." ¹⁷¹ According to the analysis presented here, anything managers receive from brokers that provides plausible net benefits to the fund should not be treated as "compensation" under 17(e), but the issue has yet to be tested. The prospect of criminal liability together with the legal uncertainty this provision raises was very likely an important driver of market participants' desire for safe harbor protection.

Because Section 28(e) is merely a safe harbor, however, a manager that accepts benefits falling outside its protection does not necessarily violate agency or trust law. The SEC recognizes that some such conduct risks criminal sanctions under Section 17(e). 172 but in its many interpretations of the scope of the safe harbor, including its

¹⁶⁹ 1986 Interpretive Release quoted in text, supra at?

¹⁷⁰ 15 U.S.C. §§ 80a-17(e) (1964).

¹⁷¹ U.S. v. Deutsch, 451 F.2d 98 (1971).

¹⁷² See 2006 Guidance, at 41981.

Guidance, it has never given detailed attention to the scope of Section 28(e) vis-à-vis Section 17(e). Is it the SEC's position that all conduct falling outside the safe harbor automatically violates Section 17(e)? Or is there a range of conduct involving paying up for benefits that falls outside the safe harbor but short of violating Section 17(e)?

The extent to which Sections 28(e) and 17(e) dovetail is a critical issue, and one that may be ripe for legal challenge. Given that the SEC has changed its interpretation of Section 28(e)'s scope over the years, it would be hard pressed to suggest that the two provisions exactly dovetail. Though the SEC clearly has authority to state its interpretation of the safe harbor as a forecast of conduct it intends to challenge, it has no authority to expand or retract the reach of 17(e) in the process. This suggests there is a range of conduct that falls outside the *Guidance* but short of violating 17(e). To avoid judicial condemnation such conduct must plausibly provide net benefits to investors even though it fails under the SEC's interpretation. This view is in keeping with trust and agency law. Were the SEC to challenge such conduct, one can only speculate about how a federal court would resolve the issue. The reduced deference federal courts have recently shown to the SEC's rulemaking suggests the *Guidance's* questionable legal and economic analysis would fare poorly. 173

VI. CONCLUDING REMARKS

Most generally, this paper makes the point that it is impossible to fairly judge conflicts of interest in an economic vacuum. Careful consideration must be given to the transaction costs market participants face in choosing between alternative forms of economic organization, each with its own vector of conflicts. Rather than summary condemnation of any particular conflict, sound investor protection requires a careful

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¹⁷³ The SEC has recently suffered a troubling string of defeats in federal court on other matters that suggests the *Guidance* could plausibly be challenged. Chamber of Commerce v. SEC I, 412 F.3d 133 (2005) (SEC failed to adequately determine the cost of two exemptive conditions regarding mutual fund board composition); Chamber of Commerce v. SEC II, 443 F.3d 890 (2006) (SEC improperly relied on materials not in the rulemaking record by failing to afford an opportunity for public comment, to the prejudice of the Chamber); Goldstein v. SEC, 451 F.3d 873 (2006) (SEC's hedge fund registration rule found arbitrary, vacated and remanded) and Financial Planning Associations v. SEC, 482 F.3d 481 (2007) (SEC exceeded its authority when it exempted brokers from the IAA who receive special compensation for giving investment advice). See footnote?, *supra*.

balancing of countervailing conflicts. The following statement by then SEC Commissioner Roel C. Campos before the 2007 Mutual Fund Directors Forum completely misses the mark:

"It is incredible to me that I still hear this argument. Let me clarify — the SEC is not is *not* in the business of improving [investment] performance. We are not an agency of investment analysts or professionals. Moreover, no other rule or regulation that I know of has ever been characterized as deficient from an investor protection standpoint because it does not improve performance or returns on investment. Again, the purpose [of the mutual fund governance rules] is not to improve performance, but to eliminate a glaring conflict of interest." ¹⁷⁴

The SEC cannot eliminate all conflicts of interest. Simply to declare a conflict of interest, even a "glaring conflict," is insufficient justification for prohibiting the activity in question. Even assuming a given conflict of interest will result in agent self-dealing, which is normally unlikely, it makes little sense to protect investors from self-dealing that would cost them only fifty cents if it reduces expected investment performance by a dollar. Just as in antitrust law, where a consensus has emerged that alternative legal rules can be judged only by their likely effect on consumer welfare, ¹⁷⁵ the inevitable trade-offs between alternative SEC rules can be judged only by their effect on investor welfare. And there is no doubt risk-adjusted "performance" net of any residual losses from agent self-dealing is ultimately what investors believe determines their welfare.

The SEC must learn to address these trade-offs in light of established economic theory and to eschew the kind of imperious rhetoric — what might be termed "condemnation by characterization" — Commissioner Campos apparently considered appropriate. In no sense does this require the SEC to be "an agency of investment analysts." It simply requires a serious assessment of the likely effect of alternative legal rules on the cost of transacting, something antitrust courts have been doing for decades.

Writing in 1968, Oliver Williamson's observations regarding the importance of transaction cost economics to antitrust enforcement is uncanny for its relevance to the

¹⁷⁴ Coral Gables, Fla: February 28, 2007, at http://www.sec.gov/news/speech/2007/spch022807rcc.htm.

Robert H. Bork, The Antitrust Paradox: A Policy at War with Itself (1978). See, e.g., Leegin Creative Leather Products v. Kay's Shoes, 127 S. Ct. 2705 (2007).

SEC's current regulation of conflicts of interest in financial markets. In his words, "if neither the courts nor the enforcement agencies are sensitive to [transaction cost] considerations, the system fails to meet a basic test of economic rationality. And without this the whole enforcement system lacks defensible standards and becomes suspect."¹⁷⁶

It has long been recognized in antitrust that legal rules are subject to error. 177 Rules that try too hard to protect investors will also screen out activity that benefits them. Where a particular market activity is subject to competitive pressures and yet is pervasive, it necessarily provides investors with some measure of benefits. The proper regulatory objective is not to minimize the possibility of injury to investors from conflicts of interest, but to optimize over both the potential harm and the potential benefit. A middle course between completely ignoring conflicts and completely prohibiting them is to use transaction costs analysis to provide a more articulate understanding of when specific conflicts benefit or harm investors on net balance. This is the equivalent of the Rule of Reason from antitrust law, under which novel business arrangements are

The economic theory relied on here — primarily transaction cost economics — is standard fare in antitrust law, well understood and rigorously applied by antitrust regulators and federal courts. Because the *Guidance* is an interpretation, rather than a rule, the SEC was not required to do any kind of cost-benefit analysis or to assess the likely effect on competition, efficiency, and capital formation. A striking example of the SEC's failure to take economic theory seriously in its cost-benefit analysis comes from its abandoned *1995 Disclosure Proposal*, which sought to require fund managers to provide detailed disclosure in annual reports regarding their brokerage allocation

¹⁷⁶ Oliver E. Williamson, *Economics as an Antitrust Defense: The Welfare Tradeoffs*, 58 Am. ECON. REV. 18 (1968).

¹⁷⁷ See Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEXAS L. REV. 1, 3, 10, 15 (1984). See, also, Charles J. Goetz and Fred S. McChesney, ANTITRUST LAW: INTERPRETATION AND IMPLEMENTATION (Foundation Press, 3rd ed., 2006), at 66-68 (Type I errors involve screening out actions that benefit investors, while Type II errors involve failing to screen out actions that harm investors).

decisions. In the SEC's facile words, enhanced disclosure "would impose some additional costs on advisers required to prepare the report and deliver it to clients. . . . [but] because the report would need to be prepared and delivered only annually, the costs of preparing and delivering [it] should be minimized. In short, the Commission believes that the costs of the proposals [sic] would be outweighed by the benefits to advisory clients in receiving more useful information about their advisers' direction of client brokerage."

All but a few prominent members of the industry protest that this disclosure would have required them to reveal sensitive proprietary information. Economic costs include far more than the out-of-pocket expenses an adviser incurs in preparing and delivery an annual report to shareholders. These expenses are trivial in comparison to two important opportunity costs. First, as virtually everyone including the SEC recognizes, more detail in the annual report is likely to overload investors and end up being *less* informative. ¹⁷⁹ More important, being forced to reveal proprietary information regarding brokerage allocation could easily force managers to share hard-found innovative trading strategies with competitors, much to the detriment of their investors. Indeed, serious consideration must be given to the possibility that in many settings investors do not want managers to disclose material proprietary information, even if it means they must forgo the information themselves. 180 The resulting reduction in the resources managers and advisers would devote to organizational innovation could have a devastating negative effect on their fund's performance and, over time, on the market itself. The value of this forgone opportunity is a substantial cost that must weigh heavily in any cost-benefit analysis. That the SEC failed even to mention this cost in its 1995 Disclosure Proposal is alarming.

Admittedly, sound cost-benefit analysis is very difficult to do. Many economists hesitate to undertake the hazy work of quantifying costs and benefits. Their tendency is to emphasize marginal analysis — so-called "comparative statics" — in which they

¹⁷⁸ 1995 Rule Proposal, at 18-19.

¹⁷⁹ See, e.g., TSC Industries, Inc. v. Northway, Inc., 426 U.S. 438, 448-49 (1976).

¹⁸⁰ See, e.g., Exxon v. Burgin ???

compare two alternative states of the world (either hypothetical, across time, or across settings at a given moment in time), in which all relevant conditions are roughly identical except the activity or event in question.

Where the parties regularly interact in a functioning market, transaction cost economics suggests a workable alternative to standard cost-benefit analysis. As a positive body of theory, transaction cost economics makes the following abstract prediction: in the face of so-called "market failures" that reduce the parties' joint wealth (i.e., "social efficiency"), they will adopt the form of organization that minimizes the associated wealth losses. 181 The literature on transaction cost economics is filled with analyses showing how parties overcome market failure through organizational innovation. This process is constrained only by the cost of transacting, and it applies, by definition, to all affected parties. 182 A formulation of cost-benefit analysis consistent with this theory begins by identifying the relevant market failure — whether a free rider problem, a collective action problem, an agency problem, a moral hazard or adverse selection problem, etc. — and the nature of the transaction costs that inhibit the parties from overcoming it. The next question is whether and how the proposed regulation reduces the relevant cost of transacting, thereby assisting the parties in overcoming the market failure as part of their natural maximizing behavior. Compared to standard costbenefit analysis, this methodology reduces the information burden on regulators. It requires information only about marginal differences in one particular category of costs transaction costs — between alternative legal rules. What is more, because it harnesses market participants' admittedly self-serving cooperative behavior it does not require detailed information about benefits or a host of other costs. Balancing and influencing these benefits and costs is left to market participants to resolve.

The inexorable tendency in U.S. financial markets is toward *pareto*-improving organization in which all parties are made better off compared to the alternative form of organization. Turning this proposition on its head, the observation of persistent conflicts

¹⁸¹ "Wealth" is defined as the discounted present value of future net benefits. See D. Bruce Johnsen, *Wealth is Value*, 15 J. LEG. STUD. 263 (1986)

¹⁸² If some parties preferences are not taken into account, it is because transaction costs inhibit them from being communicated.

of interest in institutional securities brokerage probably demonstrates the remarkable effectiveness of economic organization at averting disloyalty by highly specialized agents while maintaining high-powered incentives, rather than widespread market failure or rampant agent self-dealing. This is not to suggest agents never engage in self-dealing or that there is no way regulators, courts, or lawmakers can improve the legal environment. Rather, it suggests that any truly workable solution must specifically account for the transaction costs the parties face in balancing myriad, subtle, and invariably countervailing conflicts. It also suggests agents must be allowed to share in the gains from *pareto*-improving organizational innovation that reduces the cost of transacting. ¹⁸⁴

Candid recognition by the SEC that transacting in the market entails frictions and that suspect business practices can be evaluated only relative to the next best alternative form of organization would go a long way toward improving its regulatory oversight of institutional brokerage. If the Federal Trade Commission, the Antitrust Division of the Department of Justice, and federal courts can do this, surely the SEC can be expected to do so as well.

¹⁸³ The large number of investors who place their money in mutual funds no doubt feel substantially more comfortable with the many conflicts of interest fund managers face than with the conflicts inherent in retail brokerage accounts or the systematic discounts from net asset value characteristic of closed-end funds.

Any number of state law cases have recognized the right of corporate fiduciaries to benefit disproportionately from implementing *pareto* improving organizational innovation. See Wilkes v. Springdale Nursing Homes, Inc., 353 N.E.2d 657 (Massachusetts, 1976); Toner v. Baltimore Envelope Co., 498 A.2d 642, 652 (Maryland, 1985); and Nixon v. Blackwell, 626 A.2d 1366, 1376 (Delaware 1993).

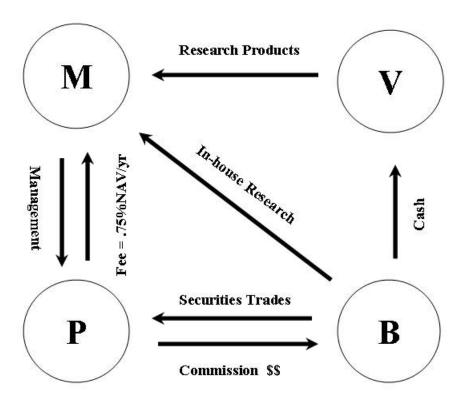


Figure 1
Relations Between the Parties

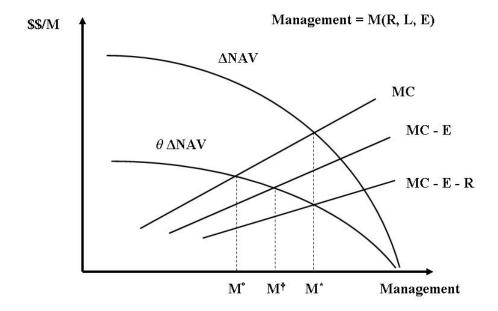


Figure 2

The Agency Problem in Delegated Portfolio Management

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TABLE I

ALTERNATIVE BROKERAGE ARRANGEMENTS

Gross Gain Per Share @ 10¢/sh	\$100,000	\$100,000	\$200,000
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Total Commissions @ 2¢/sh	\$20,000	\$20,000	\$40,000
_	LQ Broker	LQ Broker	
Broker Cost	\$20,000	\$20,000	\$40,000
Broker Surplus	0	0	0
Price Impact	\$120,000	\$120,000	\$240,000
Total Transaction Cost	\$140,000	\$140,000	\$280,000
Trading Gain/(Loss)	(\$40,000)	(\$40,000)	(\$80,000)
Total Commissions @ 4¢/sh	\$40,000	\$40,000	\$80,000
Outcome 1	HQ Broker	HQ Broker	
Broker Cost	\$40,000	\$40,000	\$80,000
Broker Profit	0	0	0
Price Impact	0	0	0
Total Transaction Cost	\$40,000	\$40,000	\$80,000
Trading Gain	\$60,000	\$60,000	\$120,000
Outcome 2	LQ Broker	HQ Broker	
Broker Cost	\$20,000	\$40,000	\$40,000
Broker Surplus	\$20,000	0	0
Price Impact	\$120,000	0	\$120,000
Total Transaction Cost	\$160,000	\$40,000	\$200,000
Trading Gain	(\$60,000)	\$60,000	0
Expected Outcome			
Expected Transaction Cost			\$140,000
Expected Trading Gain/(Loss)			+\$60,000
Total Commissions @ 7¢/sh	\$70,000	\$70,000	\$140,000
	HQ Broker	HQ Broker	
Broker Cost	\$40,000	\$40,000	\$80,000
Broker Surplus	\$30,000	\$30,000	\$60,000
Price Impact	0	0	0
Total Transaction Cost	\$70,000	\$70,000	\$140,000
Trading Gain	\$30,000	\$30,000	\$60,000
HQ Broker Bond	+\$60,000		+\$60,000
Total Gain			+\$120,000

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Property Rights to Investment Research: The Agency Costs of Soft Dollar Brokerage

D. Bruce Johnsen†

Securities regulators and policy commentators have questioned so-called "soft dollar" arrangements, in which fund managers promise portfolio trades to participating brokers in exchange for investment research. Johnsen examines the money management and brokerage industries, focusing on the agency costs associated with soft dollar arrangements. While many argue that soft dollar brokerage leads to the unjust enrichment of fund managers at the expense of fund beneficiaries, Johnsen concludes that soft dollars are efficient. He describes them as a vehicle that allows managers and brokers to align incentives and thereby reduce agency costs to the benefit of fund investors. Thus, this Article provides a counterpoint to the current support for either increased regulation or outright prohibition of soft dollar arrangements.

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Introduction

This Article examines the law and economics of soft dollar brokerage, an arcane yet controversial practice in the United States securities industry. Soft dollar brokerage evolved from the old fixed commission system that prevailed on the New York Stock Exchange (NYSE) until 1975. Under fixed commissions, the NYSE prohibited its broker-dealers from competing for brokerage business by offering their customers lower commissions. In lieu of lower commissions, brokers offered various non-price concessions to large institutional clients, such as mutual and pension funds. One popular form of non-price concession was the research rebate, through which the broker would make its in-house research available to institutional managers free-of-charge. With the deregulation of fixed commissions in 1975, brokerage commissions became freely negotiable and the average level of commissions fell substantially. Yet, curiously, most broker-dealers, led by the many new entrants to the industry, continued to bundle the cost of research and portfolio trades into a single commission. This arrangement came to be known as soft dollar brokerage.

Certainly, poor understanding of soft dollar brokerage accounts for the controversy surrounding the practice. Soft dollars depart from the textbook norm of cash consideration between anonymous traders. Rather, they constitute a form of in-kind rebate received by the professional portfolio manager.³

^{1.} Securities Acts Amendments of 1975, Pub. L. No. 94-29, 89 Stat. 97, 97-170 (1975),

^{2.} Philip Maher, Why Wall Street Can't Bank on Soft Dollars, INVESTMENT DEALERS' DIG., Oct. 23, 1989, at 19; see also Gregg A. Jarrell, Change at the Exchange: The Causes and Effects of Deregulation, 27 J.L. & ECON. 273, 274 (1984).

^{3.} Other types of institutional portfolios that use soft dollars include investment companies, bank trusts, insurance companies, and thrift institutions. GREENWICH ASSOCIATES, Warning: Tricky Undercurrents, GREENWICH REP. 63 (1989).

Moreover, soft dollar brokerage occurs almost exclusively in the principal-agent context of professional portfolio management. The beneficiaries of these funds hire managers as their agents to research, identify, and execute profitable portfolio trades. Having identified a likely trade, a manager uses fund assets to hire a broker to execute it.⁴ In a typical soft dollar arrangement the broker agrees to prepay the manager's research expenses in proportion to the future brokerage commissions the manager promises to pay the broker.⁵ The manager receives research inputs up front from third-party "research originators," whom the broker pays in cash. If all goes as planned, the manager then directs future portfolio trades to the broker, generating the promised commissions.⁷

As in any principal-agent setting, fund beneficiaries face a collective action problem in monitoring their managers. Since the gains from monitoring are shared equally by all fund beneficiaries, no individual beneficiary has sufficient incentive to monitor the manager's brokerage practices. Thus, the manager's use of soft dollars is virtually invisible. Perceptions that soft dollar use is entirely surreptitious account for the widespread hostility among the financial press, academic commentators, and securities market regulators toward soft dollar brokerage.⁸

^{4.} Fund managers distribute their trades among traditional full-service brokers, soft dollar brokers (also known as "conduit" brokers), and occasionally, no-frills discount brokers.

^{5.} Where the broker prepays the manager's research expenses, the manager is said to run an account debit with the broker. That is, the broker has account receivables for future commission business from the manager. In some cases, it appears the manager actually runs an account credit, having generated commissions prior to receiving the associated research. Unless otherwise indicated, however, this Article will assume the manager runs an account debit.

^{6.} One industry observer lists the following categories of research purchased with soft dollars: performance measurement services, third-party research, fundamental data bases, technical analysis software, portfolio modeling software, stock quote systems, political or economic analyses, and computers and terminals. GREENWICH ASSOCIATES, New Ball Game?, GREENWICH REP. 29 (1989). In addition, a recent empirical study lists the following categories of third-party research purchased with soft dollars in descending order of the frequency of use: fundamental research, data on expected earnings, macroeconomic services, computer software, technical research, portfolio consulting services, computer hardware, educational services, and office support activities. Marshal E. Blume, Soft Dollars and the Brokerage Industry, FIN. ANALYSTS J., Mar.-Apr. 1993, at 37.

^{7.} As one commentator describes soft dollar arrangements, "[t]he usual soft dollar arithmetic is expressed in terms of a ratio. For instance, a 2-to-1 ratio means the [manager] promises to direct two dollars in trading commissions to the [broker] for each one dollar the [manager] receives in research tools." Maher, supra note 2 at 20.

^{8.} See, e.g., Goodrich Securities, Inc., Exchange Act Release No. 28,141, 1990 SEC Lexis 1253 (June 25, 1990); Investment Information, Inc., Exchange Act Release No. 16,679, [1979-1980 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 82,481 (Mar. 19, 1980) (report of investigation); Fund Monitoring Services, SEC Staff Reply, [1978 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 81,607, at 80,423 (May 11, 1978); Investors Research Corporation, Exchange Act Release No. 14,721, [1978 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 81,586 (May 1, 1978); DENNIS E. LOGUE, MANAGING CORPORATE PENSION PLANS 269-73 (1991); Stephen A. Berkowitz & Dennis E. Logue, The Portfolio Turnover Explosion Explored, 13 J. PORTFOLIO MGMT., Spring 1987, at 38, 44; Lee B. Burgunder & Karl O. Hartmann, Soft Dollars and Section 28(e) of the Securities Exchange Act of 1934: A 1985 Perspective, 24 AM. BUS. L.J. 139 (1986); Robert C. Pozen, Money Managers and Securities Research, 51 N.Y.U. L. REV. 923 (1976); A Quiet Sort of Plunder, ECONOMIST, Jan. 11, 1992, at 13 [hereinafter Quiet Plunder]; A Soft, Small Voice, ECONOMIST, Jan. 11, 1992, at 67; Soft Commissions in London; You Pay, We'll Take the Refund, ECONOMIST, July 13, 1991, at 85; Jonathan R. Laing, Soft Dollars and Hard Cases, BARRON's, May 16, 1988, at 6; Letter from Richard G. Ketchum,

Some critics of the practice argue that soft dollars tempt the manager to enrich himself at the expense of fund beneficiaries and encourage him to churn his portfolio, pay excessively high commissions, and monitor brokers indifferently. Essentially, the argument is that soft dollars compromise the manager's fiduciary duty to fund beneficiaries by bundling the costs of investment research and portfolio trades into a single brokerage commission. Other critics believe that the fund manager "pays up" for brokerage in order to compensate for the research inputs he receives at the broker's expense. Still others claim that having received research in advance, the manager may develop a misplaced sense of obligation to continue using a broker whose execution quality falls below an acceptable level. Since the manager is unwilling to terminate the broker, he may invest inadequate time and attention monitoring the quality of the broker's executions.

To the alarm of its critics, soft dollar use has grown considerably during the past decade, perhaps to as much as \$1 billion annually in the United States alone. Calls for further regulation and even outright prohibition have mounted in response to this growth. Most importantly, the United States Securities and Exchange Commission (SEC) recently has identified soft dollars as one of the subjects it will investigate in its upcoming "Market 2000" study. Market 2000"

This Article examines the law and economics of soft dollar brokerage from a transaction cost perspective, focusing specifically on agency costs. Part I reviews the institutional history of securities brokerage and investment management, describes their current institutional structure, and suggests possible sources of agency costs. Part II outlines the "unjust enrichment" hypothesis,

Director of Market Regulation, U.S. Securities and Exchange Commission, to Charles Lerner, Esq., Director of Enforcement, Pension and Welfare Benefits Administration, U.S. Department of Labor (July 25, 1990) (on file with author) [hereinafter Ketchum letter].

^{9.} See Police Retirement System of St. Louis v. Midwest Investment Advisory Service, Inc., 940 F.2d 351 (8th Cir. 1991), for a recent civil case based, in part, on the alleged misuse of soft dollars by a pension plan fiduciary.

^{10.} See, e.g., James F. Jorden, "Paying Up" for Research: A Regulatory and Legislative Analysis, 1975 DUKE L.J. 1103, 1109 (1975).

^{11.} The available evidence suggests that the quality of execution varies considerably between brokers at a given moment in time and over time for a given broker. Moreover, the effects on fund performance of consistently poor execution quality can be substantial. See, e.g., LOGUE, supra note 8, at 271; Stephen A. Berkowitz et al., The Total Cost of Transactions on the NYSE, 43 J. FIN. 97 (1988).

^{12.} Maher, supra note 2, at 20; see also Julie Rohrer, The Great Rate Shake-Up, INSTITUTIONAL INVESTOR, Feb. 1985, at 51. Soft dollars are also used widely in England. E.g., Quiet Plunder, supra note 8.

^{13.} See, e.g., Quiet Plunder, supra note 8; Rawlins Slates Soft Deals, TIMES BUS. NEWS, Feb. 29, 1992, at B1 [hereinafter Rawlins Slates]; see also Letter from Stephen D. Hickman, Secretary, National Association of Securities Dealers to Marianne K. Smythe, Director, Division of Investment Management, and William H. Heyman, Director, Division of Market Regulation, U.S. Securities and Exchange Commission (Sept. 25, 1991).

Advance Notice of Possible Commission Action and Request for Information and Public Comment, Exchange Act Release No. 30,920, 1992 SEC Lexis 1689 (July 14, 1992).

which I have distilled from academic commentaries, the financial press, and several administrative rulings by the SEC. Part III presents an alternative explanation for soft dollar brokerage that I characterize as the "incentive alignment" hypothesis. The incentive alignment hypothesis accounts explicitly for agency costs across multiple dimensions and asserts that soft dollars serve to subsidize profitable investment research, bond execution quality, and encourage the specialized production of securities brokerage and investment research by entirely separate firms. Part IV examines the predictive power and policy implications of the incentive alignment hypothesis.

I. The Institutional Setting

During most of the history of the United States securities industry,¹⁷ investment research¹⁸ was produced primarily by the small number of full-service brokerage firms that dominated the New York Stock Exchange (NYSE).

Another important function is brokerage, the process of searching for better prices and executing trades. In the broadest sense, securities "brokerage" refers to any trading through specialized intermediaries. In a narrower sense, however, the intermediary function can be performed by either a broker or a dealer, and many intermediaries routinely act in both capacities. A broker is an agent who acts on behalf of his principal in performing "agency" trades, while a dealer buys and sells out of his own account in performing "principal" trades. A broker earns a per share commission and bears little or no capital risk, while a dealer earns a mark-up or mark-down, often taking ownership and bearing the associated capital risk in the process of performing a trade.

18. In addition to calling into question the propriety of soft dollar brokerage, many commentators have questioned whether investment research, in its entirety, has any redeeming social value. The conclusion that it does not was supported early on by several empirical studies finding that risk-adjusted returns on actively managed mutual funds did not differ significantly from those of a passively managed market index such as the Dow-Jones Industrial Average. For an excellent review of the literature on this subject, see Richard A. Ippolito, On Studies of Mutual Fund Performance, 49 Fin. Analysts J. 42 (1993). If these studies are correct, all investment research represents pure waste, and the conclusion is inescapable that soft dollars necessarily make fund beneficiaries worse off. Recent empirical work contradicts these findings, however, increasingly converging toward a consensus that actively-managed funds earn risk-adjusted returns at least sufficient to cover the added research and management costs. See id.; Richard A. Ippolito, Efficiency with Costly Information: A Study of Mutual Fund Performance, 1965-1984, 114 Q. J. ECON. I (1989) [hereinafter Mutual Fund Performance]. This conclusion supports the view that some amount of investment research does indeed have redeeming social value and that soft dollar brokerage may well make fund beneficiaries better off on net balance.

^{15.} See D. Bruce Johnsen, Hard on Soft Commissions, FIN. TIMES, Mar. 24, 1992, at 20; D. Bruce Johnsen, A Hard Look at Soft Dollars, CHIEF EXECUTIVE, May 1992, at 63; D. Bruce Johnsen, Opposing Views of Soft Commissions, LONDON STOCK EXCHANGE Q., Spring 1992, at 9.

^{16.} Underlying this hypothesis is the proposition that enforcing property rights to investment research is problematic, and that the extent of the firm in securities brokerage and investment management largely has been a function of the evolving solutions to the problem. For similar studies in the evolution of property rights, see D. Bruce Johnsen, *Property Rights to Cartel Rents: The Socony-Vacuum Story*, 34 J.L. & ECON. 177 (1991) [hereinafter Cartel Rents]; D. Bruce Johnsen, *The Formation and Protection of Property Rights Among the Southern Kwakiutl Indians*, 15 J. LEGAL STUD. 41 (1986).

^{17.} The securities industry performs a number of conceptually distinct functions, the most obvious of which is ownership, or risk bearing. One important attribute of ownership is the right to transfer. Many securities trades are motivated by investors' beliefs that the current price of a security is an inaccurate reflection of its future price. However prescient, these judgments are not without cost; an investor must spend resources gathering information to identify mispriced securities. I refer to this information gathering as the investment research function.

These firms bundled the costs of investment research and brokerage together into a single, regulated commission. It was not until the late 1960s, with the rise of professional portfolio management, that investment research and portfolio brokerage began to be vertically disintegrated and the dominance of the full-service brokerage houses over securities trading began to wane. Brokerage commissions on the NYSE were entirely deregulated in May 1975, and vertical disintegration began to occur in earnest with the rise of soft dollar brokerage and third-party research. The deregulation of fixed commissions, therefore, marks an important turning point in the organization of the securities industry.

A. A Brief Institutional History

Formal restrictions on securities trading began in the United States in 1792 with the formation of the Buttonwood Agreement, an association of stockbrokers that eventually developed into the New York Stock Exchange. Several commentators have noted that this agreement, which survived largely intact until 1975, functioned very much like a naked price-fixing agreement, providing explicitly for minimum commissions and preference to NYSE members in all transactions. 19 Any doubt about the compatibility of NYSE minimum commissions with the antitrust laws was laid to rest by the passage of the Securities Act of 1933,²⁰ the Securities Exchange Act of 1934,²¹ and the creation of the SEC shortly after the stock market crash of 1929.22 Through these acts, Congress placed supervision of the NYSE and other self-regulatory organizations (SROs) in the hands of the SEC. Within the decade, Congress had provided for creation of the National Association of Securities Dealers (NASD) to conduct over-the-counter (OTC) trading. The SEC came to supervise the NASD and the OTC dealer market just as it had supervised other SROs.²³ By the end of the decade, Congress had passed the Investment Advisors Act of 1940²⁴ and the Investment Company Act of 1940²⁵ to regulate professional portfolio management.

Throughout the early history of the industry, most securities were held and traded by private investors through individual brokerage-house accounts. With

^{19.} HANS R. STOLL, REGULATION OF SECURITIES MARKETS: AN EXAMINATION OF THE EFFECTS OF INCREASED COMPETITION (1971); Jarrell, supra note 2, at 273; Jonathan R. Macey & David D. Haddock, Shirking at the SEC: The Failure of the National Market System, 1985 U. ILL. L. REV. 315, 316-17 (1985); see also, J. Harold Mulherin et al., Prices are Property: The Organization of Financial Exchanges from a Transaction Cost Perspective, 34 J.L. & ECON. 591, 596 (1991).

^{20. 15} U.S.C. § 77e (1988) (as amended).

^{21. 15} U.S.C. §§ 78a-78kk (1988) (as amended).

^{22.} It was not until the eve of deregulation that the U.S. Supreme Court finally ruled that fixed commissions were immune from the antitrust laws. Gordon v. New York Stock Exch., 422 U.S. 659 (1975).

^{23.} The NASD was formed under § 15A of the Securities Exchange Act and added by Congress in 1938. 15 U.S.C. § 78o-3 (1988). Section 15A is also known as the Maloney Act.

^{24. 15} U.S.C. § 80b (1988) (as amended).

^{25. 15} U.S.C. § 89a-35(b) (1988) (as amended).

passage of the Investment Company Act, securities ownership by "open-end" investment companies, generally known simply as "mutual funds," grew considerably.²⁶ Between 1940 and 1975, open-end funds grew in total dollar value from approximately \$448 million to approximately \$49 billion.²⁷ Pension funds experienced similar growth, increasing in total dollar value from approximately \$18 billion in 1950 to nearly \$400 billion in 1975.²⁸ Moreover, the share of outstanding U.S. corporate common stock held by these institutions increased from about 23% in 1955 to over 33% in 1980.29 No doubt the growth of institutional ownership was made possible, in part, by emerging opportunities in investment research brought on by the ever accelerating "electronics revolution." Possibly due to scale economies in trading, institutional portfolio managers tended to trade in relatively large blocks, for which per share execution costs are believed to have been substantially lower than average.³¹ By the late 1960s, large block trading by investment institutions began to transform the industry. As Greg A. Jarrell notes, "[B]efore 1960, less than 2% of NYSE volume resulted from block trades (transactions involving more than 10,000 shares). By 1980 block trading accounted for about 27% of NYSE share volume."32

The trend toward institutional ownership was instrumental in the deregulation of fixed commissions. As institutional managers became less dependent on Wall Street's full-service firms for in-house investment research, brokers increasingly turned to alternative nonprice competition as a response to fixed minimum commissions. Indeed, in the fifteen years preceding deregulation, nonprice competition by NYSE brokers in the form of "give-ups" and "reciprocals" (including various types of research rebate) proliferated. This activity accounted for roughly "60 percent of commissions on institutional-sized orders." In addition, many institutions simply bypassed the NYSE altogether, either by trading NYSE-listed securities on various regional exchanges through

^{26.} Open-end funds stand ready at all times to redeem their shares at net asset value, a value calculated according to generally accepted accounting principles, and they are free to create an unlimited number of shares.

^{27.} WIESENBERGER INVESTMENT COMPANIES SERVICE, INVESTMENT COMPANIES 12 (1988) [hereinafter WIESENBERGER (1988)]. In most cases, mutual funds belong to a complex of funds operating under a central investment advisor, which is often a publicly traded corporation. Unless otherwise indicated, this Article ignores the distinction between the fund advisor and the fund manager and between the fund complex and the individual fund.

^{28.} Carolyn K. Brancato & Patrick A. Gaughan, *The Institutional Investor Project* (Sept. 1991) (unpublished working paper, on file with the Center for Law and Economic Studies, Columbia University School of Law).

^{29.} Id. at Table 9.

^{30.} Macey & Haddock, supra note 19, at 319, 321.

^{31.} RICHARD W. JENNINGS, JR. ET AL., SECURITIES REGULATION: CASES AND MATERIALS 556 (1992).

^{32.} Jarrell, *supra* note 2, at 277. Data on the volume of block trades underestimates the market effects of institutional trading because institutions often purposely accumulate or sell large blocks in piecemeal fashion.

^{33.} Id. at 279 n.14.

what is known as the Third Market or by arranging direct trades with other institutions through proprietary trading systems on what is known as the Fourth Market.³⁴

In 1968, at the behest of the SEC, the NYSE responded to the loss of trading volume by allowing a 7% discount "on orders exceeding 1000 shares."35 At the same time, however, the NYSE prohibited its members from providing give-ups or engaging in off-board trading in NYSE-listed stocks. The response by many mutual funds was to integrate vertically into brokerage by acquiring exchange memberships or member affiliates in an effort to capture the full benefits of block trading. The trend toward vertical integration further eroded the NYSE's grip on the industry and resulted in a series of SEC rulings prescribing negotiated commissions on the portion of an order above a set minimum dollar value. Over the years the SEC successively lowered this minimum until commissions were made entirely negotiable in May 1975 as part of the Securities Acts Amendments to the Securities Exchange Act of 1934.36 The result was a dramatic drop in the level of brokerage commissions and a surge in trading volume.³⁷ While the unfixing of commissions slowed the trend toward vertical integration by institutions, this trend was further retarded by the inclusion of section 11(a) in the Securities Acts Amendments. Section 11(a) prohibits anyone who exercises "investment discretion" over a managed account from "effecting" trades on the NYSE or any other exchange.³⁸

In addition to providing for negotiated commissions, the 1975 amendments also added section 28(e), the so-called "paying up" amendment, to the Exchange Act.³⁹ Section 28(e) was designed to allay widespread concern by investment managers that their common law and statutory duties of best execution would limit them to paying only the lowest available commissions for

^{34.} Macey & Haddock, supra note 19, at 340; JENNINGS ET AL., supra note 31, at 559.

^{35.} Jarrell, supra note 2, at 280-84.

^{36.} Securities Acts Amendments of 1975, Pub. L. No. 94-29, § 7, 89 Stat. 11 (codified as amended at 15 U.S.C. § 78k-1(a)(2) (1988)). This legislation amended § 19(b) of the Exchange Act with § 6(e) and also prompted the SEC to adopt Rule 19b-3. Adoption of Rule 19b-3, Exchange Act Release No. 11,203, [1974-1975 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 80,067 (Jan. 23, 1975). Section 19(b) was the original source of the SEC's authority to review commissions, while § 6(e) specifically prohibited fixed commissions. Rule 19b-3, eliminating fixed commissions, was adopted by the SEC in anticipation of congressional passage of § 6(e). See Gordon v. New York Stock Exch., 422 U.S. at 675.

^{37.} Jarrell, supra note 2, at 280-84; JENNINGS ET AL., supra note 31, at 556.

^{38.} Rule 11a-1, adopted by the SEC in 1979, limits the application of § 11(a)(1) to transactions that occur on the exchange floor. Adoption of Rule 11a-1, Exchange Act Release No. 7,330, [1961-1964 Transfer Binder] Fed. Sec. L. Rep. (CCH) § 77,001 (June 2, 1964). A broker affiliate of an investment company can therefore act as an initiating broker in bringing the trade to the exchange floor so long as he routes the trade through an unaffiliated broker for final execution. Lee A. Pickard & Mari-Anne Pissarri, Establishment of Affiliated Broker-Dealer for Execution of Portfolio Trades, in Trading Practices, The Portfolio Execution Process, AND SOFT DOLLAR BROKERAGE ARRANGEMENTS 56-57 (Lee A. Pickard ed., 1989) [hereinafter Trading Practices].

^{39. 15} U.S.C. § 78bb(e) (1988) (as amended).

portfolio brokerage regardless of execution quality or the value of any research services they received.⁴⁰ Part (1) of section 28(e) provides, in relevant part:

No person [who exercises] investment discretion with respect to an account shall be deemed to have . . . breached a fiduciary duty . . . solely by reason of having caused the account to pay a member of an exchange, broker, or dealer an amount of commission . . . in excess of the amount of commission another member of an exchange . . . would have charged . . . if such person determined in good faith that [it] was reasonable in relation to the value of the brokerage and research services provided 41

Although section 28(e) mandates fairly broad protection to fund managers in allocating brokerage, any formal contractual commitment to patronize a particular broker necessarily falls outside its safe harbor. Exclusive dealing contracts are surely prohibited; but even in the absence of a formal agreement, any fund manager found to have placed an excessive share of his trades with a single broker risks legal action by the SEC and fund shareholders. The exact scope of section 28(e) protection has evolved over the years with a number of SEC letter rulings, cases, and administrative releases. This evolution has had substantial influence on the current institutional structure of securities brokerage and investment management.

B. Current Institutional Structure

With deregulation, Wall Street suffered a sobering shake-out. Commissions declined considerably, from perhaps forty cents per share to between five and ten cents per share. And NYSE seat prices declined in value by roughly 50% in spite of a tremendous increase in trading volume. The brokerage industry experienced an alarming merger wave, although by any reasonable standard industrial concentration remains fairly low. The full-service houses began to diversify away from the "equity agency business"—the brokering of common stock. Among those hardest hit by deregulation were the medium-sized firms that had specialized in providing in-house research to institutional clients.

^{40.} SENATE COMM. ON BANKING, HOUSING AND URBAN AFFAIRS, SECURITIES ACTS AMENDMENTS OF 1975, S. REP. No. 75, 94th Cong., 1st Sess. 69-71 (1975) [hereinafter SENATE REPORT].

^{41. 15} U.S.C. § 78bb(e) (1988) (as amended).

^{42.} For an example of how someone placed a disproportionate share of fund portfolio transactions with a single broker, see Investors Research Corporation, *supra* note 8.

^{43.} Maher, supra note 2, at 19; see also Jarrell, supra note 2, at 277.

^{44.} Jarrell, *supra* note 2, at 294-97.

^{45.} Id. at 302-03.

^{46.} Id. at 302.

^{47.} Id. at 303.

As Jarrell observes, "the reduction in the demand for [in-house] research services that accompanied deregulation caused the demise of these research firms." Leading the move toward lower commissions was a proliferation of no-frills discount brokers, who provide little or no research with their executions. Over the next few years, discount brokers' market share increased from less than 0.5% to roughly 6%. Additionally, protected from fiduciary suits by section 28(e)'s safe harbor, mutual and pension fund managers began to use soft dollar brokerage to acquire third-party research on a significant scale. On the second section 28 (e) is safe harbor, mutual and pension fund managers began to use soft dollar brokerage to acquire third-party research on a significant scale.

In contrast to the brokerage industry, the investment management industry flourished following deregulation. Total pension fund assets rose to nearly \$2.5 trillion by 1990, while total investment company assets grew to more than \$1 trillion.⁵¹ Institutional holdings of corporate common stock surpassed 50%.⁵² The decline in commissions not only brought a predictable increase in trading volume and asset holdings by institutional investors, it also triggered a dramatic rise in portfolio turnover, which more than tripled between 1975 and 1984.⁵³

The available evidence indicates that with higher turnover came further growth in soft dollar use. Several commentators have estimated that by 1990 between 30% and 50% of all trades on the NYSE involved the provision of third-party research pursuant to some form of soft dollar arrangement,⁵⁴ with 1989 annual soft dollar brokerage commissions thought to be in excess of \$1 billion.⁵⁵ The steady rise in soft dollar use and the associated decline in commissions were correlated with an increase in the ratio of research to brokerage included in soft dollar commissions.⁵⁶

One of the SEC's first post-deregulation rulings under section 28(e) was a 1976 interpretive release finding that the safe harbor does not apply to research products that are "readily and customarily available... to the general public on a commercial basis." Although the SEC has since amended this

^{48.} Id.

^{49.} JENNINGS ET AL., supra note 31, at 560 n.17; see also Jarrell, supra note 2, at 311.

^{50.} According to § 28(e)(1), the safe harbor is exclusive and plenary, overriding state common law and state and federal statutory law as it existed at the time of § 28(e)'s passage. SENATE REPORT, supra note 40, at 70.

^{51.} Data for pension funds are taken from Brancato & Gaughan, *supra* note 28, at Table 8, while data for investment companies are taken from WIESENBERGER INVESTMENT COMPANIES SERVICE, INVESTMENT COMPANIES 12 (1992).

^{52.} Brancato & Gaughan, supra note 28, at Table 21.

^{53.} Berkowitz & Logue, supra note 8, at 40.

^{54.} Kevin G. Salwen, Brokerage Firms Slam Wall Street's Soft Dollar Deals, WALL St. J., June 22, 1990, at C1; see also Soft Commissions: Hard Nuts to Crack, ECONOMIST, Sept. 16, 1989, at 87.

^{55.} Jeffrey M. Laderman & Tim Smart, Wall Street Falls in Love with 'Soft Dollars', BUS. WK., Apr. 24, 1989, at 127; see also Maher, supra note 2, at 20; Roher, supra note 12, at 51.

^{56.} Ratios as high as one dollar of research for every \$1.20 in commissions have recently been reported. Maher, *supra* note 2, at 20.

^{57.} Interpretations of § 28(e): Use of Commission Payments by Fiduciaries, Exchange Act Release No. 12,251 [1975-1976 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 80,407 (Mar. 24, 1976).

interpretation, for many years the ruling prohibited managers from receiving basic research tools such as Quotron machines, computer hardware, some forms of computer software and databases, and other items necessary for effective portfolio management. By its terms, the interpretation would appear to have excluded most generic research products sold in the market by third-party research generators.

The SEC's next important ruling considered section 28(e)'s limitation to those who exercise "investment discretion" on behalf of a managed account. In *Foley & Lardner*, 58 the SEC staff ruled that a corporate pension plan sponsor (the corporation itself) receives no safe harbor protection when it directs its investment managers to send portfolio brokerage to a specific soft dollar broker in exchange for research services to be received by the plan sponsor. The SEC reached this decision because the plan sponsor was found to have exercised no investment discretion over pension assets. 59

Shortly after this decision, the SEC clarified the meaning of the phrase "provides research and brokerage" in section 28(e), settling lingering uncertainty over whether the broker must produce the research in-house. According to the SEC, it is necessary only that the broker retain the "legal obligation to a third-party producer to pay for the research (regardless of whether the research is then sent directly to the broker's fiduciary customer by the third party or instead is sent to the broker who then sends it to its customer)."⁶⁰

It was not until 1986 that the SEC amended its "readily and customarily available" standard for the eligibility of safe harbor research. In response to the "changing array of research products and the impact of new technology on brokerage practices," the SEC relaxed the definition of research to include anything that "provides lawful and appropriate assistance to the money manager in the performance of his investment decision-making responsibilities." This ruling clearly allowed generic research products to be included in the safe

^{58.} Foley & Lardner, SEC Staff Reply, [1976-1977 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 80,925 at 87,440-41 (Dec. 3, 1976); see also Capital Institutional Services, Inc., SEC No-Action Letter, [1984-85 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 78,107 at 76,528-32 (May 1, 1985).

^{59. 15} U.S.C. § 78c(a)(35) (1988). This section defines the term "investment discretion" as it is used throughout the Act. Subsection (c) specifically allows the SEC to extend the operation of the section to anyone who exercises sufficient influence over a managed account. Since the plan sponsor is responsible for monitoring its investment managers, and since it retains the right to terminate them for poor performance, including the plan sponsor in safe harbor protection would seem like a reasonable interpretation. This view is especially compelling where the research services sought by the plan sponsor consisted of software designed to allow the sponsor to monitor the investment performance of its managers.

^{60.} National Association of Securities Dealers, Inc., Exchange Act Release No. 17,371, [1980 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 82,705 (Dec. 12, 1980).

^{61.} Interpretation concerning the scope of § 28(e), Exchange Act Release No. 23,170, 51 Fed. Reg. 16,006 (Apr. 30, 1986) [hereinafter Scope of § 28(e)]. This language more closely tracks that contained in SENATE REPORT, *supra* note 40, at 71.

harbor and was followed by considerable expansion in soft dollar brokerage and third-party research, largely at the expense of the full-service houses.⁶²

The most significant recent SEC decision under section 28(e)'s safe harbor was a 1990 letter ruling in response to an inquiry from the Department of Labor (DOL). Before taking enforcement action in several pending cases under the Employee Retirement Income Security Act (ERISA), the DOL requested the SEC's opinion on whether the safe harbor applies to OTC stocks and fixed income securities, which are traded primarily by dealers on a principal basis. By its text, section 28(e) covers trades sent by the manager to a "broker or dealer," but in reference to the trader's compensation it mentions only "commission[s]," not mark-ups or mark-downs. In the narrow sense of the term, only brokers earn commissions, while dealers, as principals, earn mark-ups and mark-downs. Since Congress passed section 28(e) to mitigate problems due specifically to the unfixing of commissions, the SEC found that the safe harbor does not apply to dealer transactions. This decision brought the burgeoning use of soft dollars in fixed income and OTC equity transactions to a grinding halt. 65

These rulings under section 28(e) define a limited refuge for those interested in using soft dollars to bundle brokerage and third-party research together into a single commission. Prior to deregulation, this kind of bundling was a predictable response to fixed minimum commissions. The question is then: "Why bundle? Why not price and transact brokerage and research separately?" As then Commissioner Joseph Grundfest asked during a 1989 SEC Roundtable discussion on soft dollars, "Why is it that in this situation, the folding green stuff most of us are familiar with appears not to work?"

C. Agency Costs

The widespread criticism of soft dollars relies implicitly on what the law and economics and finance literatures describe as an agency cost problem. The problem arises because an agent, such as a mutual or pension fund manager, has only a partial stake in the profitability of the principal's enterprise, while the costs to the principal of monitoring the agent's activity are high, or even prohibitive. As a result, the agent may shirk or consume too many of the principal's resources in the form of perquisites, and the parties' joint wealth will fall short of what it would be otherwise.

^{62.} See Memorandum from the Division of Market Regulation to the Securities Exchange Commission C3, C9-10 (June 6, 1990) (on file with author) [hereinafter SEC Action Memorandum].

^{63.} See Ketchum letter, supra note 8.

^{64. 29} U.S.C. § 1132 (1988) (as amended).

^{65.} Philip Maher, Principal Soft Dollar Trades in Disarray after SEC Ruling, 56 INVESTMENT DEALERS' DIG., May 6, 1990, at 7.

^{66.} Maher, supra note 2, at 21; SEC Action Memorandum, supra note 62, at C5.

As with all agency arrangements, agency costs limit the advantages of professional portfolio management and reduce the wealth of fund beneficiaries. Whenever agency costs exist, however, the parties can increase their joint wealth by structuring their relationship more efficiently. Excessive or careless trading by a fund manager surely constitutes one source of agency costs, but there are other sources as well. Virtually all agency arrangements create value on a variety of interrelated dimensions; price, quality, and timeliness are just a few of the dimensions that are normally subject to an agent's discretion. An agent who pays a higher-than-average price on behalf of his principal may also receive higher quality or more timely performance. Conduct that appears to be a source of agency costs when evaluated on one dimension might actually reduce aggregate agency costs when its effects are summed across all dimensions. Indeed, I argue that soft dollars constitute just such a solution to the agency problem in professional portfolio management. Accordingly, further regulation is likely to injure fund beneficiaries rather than help them.

Most managers' compensation is based on a percentage of the net market value of their portfolio—normally between 20 and 200 basis points. Thus, even the highest-paid fund managers receive just a small share of any wealth increase they generate for the fund. If they were required to pay the entire research bill out of their own pocket they would have too little incentive to do well-researched trades. This problem constitutes a second source of agency costs. One way for fund beneficiaries to reduce the attendant losses is to subsidize the manager's use of research. By bundling the costs of research and execution into a single trading commission paid by fund beneficiaries, soft dollars may provide the ideal solution. They not only increase the manager's incentive to trade, but they also provide him with the research necessary to identify profitable trades.

Of course, profitable trading requires that the manager monitor his brokers—who are also agents of fund beneficiaries—to ensure that they provide the best execution possible and that their search activity has a minimum adverse impact on the price of the security. But execution quality, and especially "price impact," are notoriously difficult to assess in the short run. An inept, indolent, or opportunistic broker could cheat the manager (and fund beneficiaries) by doing a shoddy job of execution, thereby saving the added costs of properly working the trade. This monitoring problem is a third source of agency costs. Again, soft dollars may provide the ideal solution. Having already received research at the soft dollar broker's expense, the commissions a manager "owes" the broker bond the quality of the broker's executions. Since the manager's promise to use the broker's services is legally unenforceable, the broker risks being terminated with his account balance unpaid if he cheats the manager. Rather than diluting execution quality, soft dollars may therefore guarantee it, much to the advantage of fund beneficiaries.

II. The Unjust Enrichment Hypothesis

The unjust enrichment hypothesis is based on the normative assertion that the fund manager should bear all of the costs of investment research out of his own pocket, paying for it in cash. The assumption is that the manager's advisory fee provides him with full compensation for the costs of investment research. His ability to use soft dollars covertly to transfer these costs to the fund therefore compromises his duty of loyalty to fund beneficiaries. Proponents of the unjust enrichment hypothesis claim that a fund manager faces a conflict of interest when he uses soft dollars to pay for investment research. The conflict can manifest itself in a number of different ways. First, the manager might treat the research products purchased with soft dollars as a free good and overuse them. Second, the manager might churn the account or agree to excessively high brokerage commissions to pay the research bill he instead should have paid out of his own pocket. Finally, the manager might direct trades to soft dollar brokers to whom he is indebted for research, even though these brokers may provide poor execution quality.

There is a general consensus among financial market commentators that many of the research products managers receive through soft dollar arrangements are virtually worthless.⁶⁷ This is the view expressed by Dennis Logue, who, in discussing transaction costs as a pressing issue in pension fund management, observes that:

[Soft dollars] make buying a lot of wild and useless analysis very nearly painless, because the true value of the service is masked. Given that the commissions are going to be generated anyway, the purchaser may treat what is purchased as essentially free, [so that] the product or service does not pass a cost-benefit standard on its own.⁶⁸

Logue emphasizes that "commissions are only one part of transaction costs." "Market impact costs," he correctly points out, must also be included in the calculus. ⁶⁹ The failure of a pension plan sponsor or fund manager to account for these costs can have a substantial effect on total transaction costs and ultimately on fund performance. According to Logue:

The costs of extremely poor trade executions can far exceed the cash value of the research service. Thus in many instances it is likely true that paying cash for what is truly needed and systematically selecting

^{67.} See, e.g., Claire Makin, What Will Happen to Research?, INSTITUTIONAL INVESTOR, Feb. 1985, at 57.

^{68.} LOGUE, supra note 8, at 270.

^{69.} Id.

the broker likely to produce the lowest total transaction cost may be far less costly than the soft-dollar arrangements that may push a sponsor [or manager] to deal with a brokerage firm which has very high market impact costs.⁷⁰

Others would no doubt take issue with Logue's assumption that "the commissions are going to be generated anyway." A number of commentators have insisted that soft dollars give the manager an incentive to churn the portfolio to generate additional brokerage commissions and the soft dollar rebates that go with them. According to Robert Pozen, writing shortly after the deregulation of brokerage commissions, "money managers have an incentive to make an excessive number of trades for their clients' accounts under soft dollar payments. . . . [and to] maximize the flow of securities research at their clients' expense." More recently, Lee Burgunder and Karl Hartmann have described the churning problem in cost-benefit terms:

In an environment without section 28(e), research would be purchased until the last hard dollar spent for the research equalled the value of that research to the clients. Any additional research would benefit the clients less than its cost, and thus would be an unreasonable expenditure. Thus, if one argues that managers are more willing to buy additional research with soft dollars than they would using hard dollars, then one admits that the purchases are unreasonable in relation to their cost.⁷²

Consistent with the widespread consensus among financial market commentators, the SEC seems to have settled on the belief that soft dollars create real conflicts of interest, tempting managers to churn their portfolios to pay their research bills, thus enriching themselves at the expense of fund beneficiaries. A clear statement by the SEC on this issue is found in *Fund Monitoring Services*, *Inc.* (*FMS*), ⁷³ another SEC letter ruling. Fund Monitoring Services, Inc. was a third-party research originator that had developed a service to evaluate the investment performance of individual fund managers. FMS set up soft dollar accounts for pension plan sponsors and the advisors of fund complexes to provide them with this evaluation service. The agreement required that each fund manager direct a minimum amount of commission business over the course of the accounting year to any of the brokers on the FMS approved

^{70.} Id. at 271.

^{71.} Pozen, supra note 8, at 956.

^{72.} Burgunder & Hartmann, *supra* note 8, at 176. Others note an additional reason why soft dollars have led to churning in the years following deregulation: "As commission rates fall, more and more volume must be done to reach the designated dollar amount." Berkowitz & Logue, *supra* note 8, at 44.

^{73.} Fund Monitoring Services, supra note 8.

list. The managers were free to negotiate commissions with the chosen broker, who would provide brokerage services and in turn negotiate with FMS over the percentage of the commission FMS was to receive in cash. Any manager who failed to do sufficient business with the designated brokers would be required to make up the difference through a lump sum cash payment directly to FMS. The FMS arrangement, therefore, placed a floor on some combination of research and portfolio trading by the managers. According to the SEC, the arrangement appeared to create a conflict of interest, because it could provide an improper inducement to excessive trading by a money manager and could improperly influence the amount of commissions paid on behalf of the managed account. In spite of the purpose of the research—to identify the kind of substandard portfolio performance that could result from excessive trading by fund managers—the SEC found the arrangement outside the section 28(e) safe harbor.⁷⁴ Elsewhere, in discussing the protections afforded by section 28(e), the SEC has emphasized a manager's common law and statutory fiduciary duty to "exercise the utmost care to avoid improperly enriching himself at the expense of his client."75

Although the unjust enrichment hypothesis is based on the normative assertion that fund managers, rather than shareholders, should pay for investment research, it can also be formulated as a positive hypothesis based on agency costs. Agency costs are likely to arise whenever a principal delegates discretion to an agent. According to Jensen and Meckling, authors of the seminal article on the subject, agency costs consist of monitoring costs by the principal, bonding costs by the agent, and residual loss:

The principal can limit divergence from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent. In addition, in some situations it will pay the agent to expend resources (bonding costs) to guarantee that he will not take certain actions which would harm the principal or to ensure that the principal will be compensated if he does take such actions. However, it is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal's viewpoint. In most agency relationships the principal and the agent will incur positive monitoring and bonding costs (non-pecuniary as well as pecuniary), and in addition there will be some divergence between the agent's decisions and those decisions which would maximize the welfare of the principal. The dollar equivalent of the reduction in welfare experi-

^{74.} The staff of the SEC reiterated its concern over churning in its July 1990 letter ruling to the Department of Labor. Ketchum letter, supra note 8.

^{75.} Investment Information Inc., supra note 8, at 83,009.

enced by the principal due to this divergence is also a cost of the agency relationship, and we refer to this latter cost as the "residual loss." ⁷⁶

Due to the agency costs of institutional management, it is possible that managers will overuse research, pay excessively high commissions, or churn their portfolios to pay the research bill that they would otherwise have to pay out of their own pocket. Jensen and Meckling place a manager's consumption of fund assets in this fashion in the general category of perquisites.⁷⁷ Because monitoring and bonding are costly, past some point it will not be in the interest of beneficiaries to spend an additional dollar on monitoring and bonding to save ninety cents worth of perquisites. Fund managers, however, will not earn a windfall. Knowing they will be able to consume perquisites on the job in the form of free investment research, they will compete for coveted positions by offering to work for a lower management fee than they would accept otherwise. Labor market competition will bid down the management advisory fee until managers' total compensation, including the value of any perquisites they consume, provides them with only a competitive wage. Due to this competition, there will be no unjust enrichment over the long run. Nevertheless, it would be a mistake to conclude out-of-hand that managers should be left unconstrained in their use of investment research. Indeed, an important function of law is to eliminate destructive forms of competition, which necessarily reduce social wealth. 78 The imposition of a fiduciary duty on agents is a relevant case in point. It would be ill-advised, however, to further restrict or even eliminate the section 28(e) safe harbor, as many observers suggest, without considering other sources of transaction and agency costs and alternative hypotheses that explicitly take them into account. This is because behavior that increases the agency problem on one dimension might actually reduce aggregate agency costs across all dimensions. If so, further analysis is warranted to determine the likely effects of proposed regulations.

III. The Incentive Alignment Hypothesis

To understand how soft dollars might reduce aggregate agency costs, it is important to address the issue of property rights to investment research. Many commentators have criticized the old fixed commission system from a normative position, arguing that the NYSE was nothing more than an exclusive club whose primary functions were to exclude outsiders and to perpetuate the

^{76.} Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305, 308 (1976).

^{77.} Id. at 313.

^{78.} See, e.g., D. Bruce Johnsen, Wealth is Value, 15 J. LEGAL STUD. 263 (1986).

spoils of government protection on behalf of its members.⁷⁹ My position is largely positive—to understand how the system enforced property rights to investment research and to determine how this bears on the incentive alignment hypothesis.

A. Property Rights to Investment Research

Under the old system, full-service brokers produced investment research in-house and bundled their research conclusions together with brokerage services, charging a single commission to cover the costs of both functions. Since good research conclusions have always been scarce, brokers with a large group of clients had to determine how to allocate this research. It is common knowledge that under the old system—and to some extent under the new system—full-service brokers discriminated in favor of preferred clients, calling them first with news of the most recent trading opportunities. Although some clients were favored over others, those clients had to pay more to gain favor. The inevitable favoritism of individual brokerage-house accounts led clients to compete to be favored in the allocation process. With regulatory restrictions on competition between brokers, we would expect clients to have entirely dissipated any surplus value they stood to receive. Few individual clients had the bargaining power to command above-normal returns, and the transaction costs of forming bargaining coalitions were prohibitive.

Aside from favoritism, the property rights problem has at least two additional manifestations. The first, a measurement problem, arises due to the high

In the old days, Wall Street research was a more exclusive affair, and institutions had a greater need to keep close trading ties with brokers to stay informed. Whenever a broker unearthed a new investment insight, it was the customers who generated the most commission revenue who were assured of the "first call."

Today, with instantaneous communications, computerized information services and automated trading systems, research doesn't stay proprietary for very long. That means not only that it's harder and more expensive to stay ahead in the Wall Street research game, but also that the resulting product tends to be a more perishable, less lucrative commodity.

, Barbara Donnelly, Street Squabble: Who Controls Research?, WALL ST. J., June 11, 1991, at C1.

Indeed, one of today's popular research products is known as "First Call." Autranet to Cease Soft Dollar Operations, WALL ST. LETTER, Nov. 5, 1990, at 1. Although anyone can subscribe to First Call, the name evokes a striking image of the way investment research was once allocated. The inference is inescapable that if some clients got the first call, other clients must have gotten the second call, the third call, and so on.

The obvious criterion for discriminating between clients would have been to favor those who generated the most commission business. A more subtle criterion would have been to favor those who provided bits of information in the investment research process. Allowing these clients to participate in the resulting trades was probably an extremely efficient way of compensating them because it tied their reward to the ultimate value of the information inputs they provided.

^{79.} See, e.g., CHRIS WELLS, THE LAST DAYS OF THE CLUB (1975).

^{80.} According to one journalist:

^{81.} See Steven N.S. Cheung, A Theory of Price Controls, 17 J.L. & ECON. 53 (1974).

cost to investors of assessing the value of investment research conclusions.⁸² The problem with trading this kind of information in a non-recurrent market setting is that the buyer can never know with certainty whether the trading opportunity has any value, and it is extremely difficult for the seller to provide a guarantee. To verify the value of the research, the buyer would have to devote considerable time and attention to measuring its value, and in the limiting case would have to completely reproduce it, thus eliminating any gains from specialization. The measurement problem makes it all but impossible to transact a good such as conclusory investment research in a nonrecurrent market setting.

The second problem is leakage. Once an investor acquires superior information, he wants to achieve anonymity in a trading environment filled with potential interlopers eager to mimic his trades. ⁸³ In the extreme case, the broker himself may frontrun the trade or purposely tip his associates. ⁸⁴ In the less extreme case, the interloper might be an astute and watchful market participant who is capable of taking advantage of the slightest sign of carelessness by the broker. Either way, the manager stands to lose some of the value of his investment research.

The old fixed commission system overcame these property rights problems by using extra-legal sanctions against interlopers. Club members, the full-service brokerage firms and their preferred clients, invested heavily in their business reputations and dealt repeatedly with other club members. Anyone caught interloping, leaking information, or selling worthless investment research risked being ostracized and faced losing the stream of benefits that otherwise would have accrued to continued membership and a long course of dealing. The old system was probably efficient at establishing property rights to investment research when compared to alternative systems.

Deregulation changed all that. The rise of investment companies and other professionally-managed portfolios in the 1950s and 1960s, and the advent of financial market deregulation changed these ways of doing business. In contrast to individual brokerage-house accounts, mutual funds have the remarkable

^{82.} Yoram Barzel, Measurement Costs and the Organization of Markets, 25 J.L. & ECON. 27 (1982).

^{83.} See, e.g., Kevin G. Salwen, Bill Would Divert Floor Trades Away From Independent Brokers, WALL St. J., May 15, 1991, at C1; James A. White, Wall Street Is Giving Big Clients Its Program-Trading Firepower, WALL St. J., May 1, 1991, at C1.

^{84.} Frontrunning occurs when the broker takes a forward position in the security or its derivative products in anticipation of a price change that he knows will be caused by his client's impending trade. Frontrunning allows the broker to capture a portion of his client's return and substantially increases the price impact of the trade. See, e.g., Lee A. Pickard & Judith W. Axe, Frontrunning: Regulatory Developments, in TRADING PRACTICES, supra note 38, at 21. This is not to say that all frontrunning is dishonest. In some cases, for example, a notoriously well-informed trader might have a completely uninformed trade to make that is certain not to cause any permanent price adjustment. If he knows that others are likely to mimic the trade he will also know that the price will temporarily adjust, followed by price reversion once the market discovers that he had no private information. This presents him with the opportunity to get even with the interlopers by authorizing a broker to frontrun the trade, first as the price adjusts in one direction and then as it reverts. In this way, the client may not only succeed in transferring wealth from the interlopers, but he will also deter them from future misconduct, thereby reducing price impact on his future trades.

advantage of averting the competition between clients to gain the favor of the investment researcher, in this case the fund manager. This advantage arises because fund beneficiaries have a common claim to an undivided pool of assets. There is virtually no way an investment manager can favor one investor over another in a given fund.⁸⁵ As a result there is no reason for investors to engage in costly competition.

The transaction-cost advantages that institutional managers enjoyed over small private investors gave them a distinct advantage in bargaining with fullservice brokers for give-ups, reciprocals, and other non-price concessions. Over time, institutional managers became less dependent on full-service brokers for in-house investment research. This independence allowed them to take advantage of low-cost, off-board trading on the regional exchanges and to capture the benefits of exchange membership. Additionally, the "electronics revolution" changed the fundamental character of investment research and accelerated the decline of full-service brokerage.86 Under the old system, investment research tended to be in the nature of an output; that is, conclusions concerning profitable trading opportunities, which were virtually impossible to transact separately in the market because of the problems involved in measuring their value and preventing leakage. Instead, information was assembled from private sources (club members) with the help of a relatively small number of well-heeled participants. Following deregulation, the investment research traded in the market has tended to be in the nature of inputs, such as computer software, hardware, and third-party research reports. Investment managers can assemble these in order to arrive at their own conclusions about profitable

^{85.} In some cases, a single pension manager operates multiple pension funds, and the problem of favoritism moves to a new level. In some of these cases, however, each fund has a pro rata claim to an undivided pool of assets. Also, the central advisor of a mutual fund complex operates a number of individual, legally separate funds and is in a position to favor one fund over the others. This problem is mitigated in some fund complexes by rules allowing shareholders to convert freely between the various funds within the complex. Finally, to the extent investment managers continue to rely on full-service brokers for some amount of in-house investment research, the favoritism problem still exists. The legislative history of § 28(e) indicates that safe harbor protection "does not require that the value of research and brokerage services be imputed to any specific account." SENATE REPORT, supra note 40, at 70 (emphasis added).

^{86.} The general consensus among commentators is that the electronics revolution and the "information age" it ushered in led to increased specialization and a notable dispersion of the information gathering function. See, e.g., Macey & Haddock, supra note 19, at 319-21; Henry R. Minnerop & Hans R. Stoll, Technological Change in the Back Office: Implications for Structure and Regulation of the Securities Industry, in Technology And the Regulation of Financial Markets 31 (Anthony Saunders & Lawrence J. White eds., 1988). The conclusion may therefore be inescapable that the electronics revolution was the driving force behind deregulation, whereas Jarrell identifies the rise of the regional exchanges as the driving force. Jarrell, supra note 2, at 273, 289. Yet, during its first 150 years the NYSE had faced recurrent competition from new entrants. Even with fixed minimum commissions it apparently succeeded in offering a superior product. One therefore has to ask why it took over 150 years for entry by competing exchanges to erode the NYSE's cartel. My belief is that the superior product was investment research and that only with the electronics revolution did viable alternatives to in-house research by full-service brokers appear. And only with the rise of professionally managed portfolios did efficient use of these alternatives begin to occur on a significant scale.

trading opportunities.⁸⁷ Under the new system, information is often gathered from widely dispersed sources, at least some of which are public in nature.

The rise of professional portfolio management is a striking example of widespread vertical disintegration of the firm, with institutional managers taking on many of the investment research functions that had in the past been performed exclusively by full-service brokers. Eventually, the vertical disintegration of research and its reintegration into investment management tipped the balance of competing political interests in favor of deregulation. The new system that has evolved out of deregulation allows investors to avoid the favoritism and measurement problems of the old system, but it probably aggravates the leakage problem and adds the problem of agency costs in investment management.

B. Aligning Managers' Incentives

The above discussion suggests that the transaction and agency costs associated with investment management arose as a direct result of changes in the structure of property rights to investment research. It is virtually impossible for fund beneficiaries to know the extent of agency costs at any given moment, or what the net returns from institutional investing are likely to be in the near future. Ambiguities exist, in part, because both mutual fund expenses and gross portfolio returns are subject to substantial noise; that is, they vary unsystematically in the short run. The agency costs of monitoring manager performance, although not infinite, are therefore substantial. In any event, agency problems under the current system notwithstanding, the large number of investors who favor professional portfolio management are at least as well off as they would be under the former system of fixed minimum commissions and individual brokerage-house accounts. Net returns under the former system served as a constraint on the level of agency costs in institutional portfolio management.

The unjust enrichment hypothesis demonstrates that one broad category of agency costs arises from an agent's consumption of perquisites. But a second broad category of agency costs arises from what Jensen and Meckling call "shirking" by the agent. Where the agent bears some of the input costs of the performance of a given activity, he will tend to do less than the principal would prefer. As with perquisites, monitoring by the principal and bonding by the agent will give the agent an incentive to perform the expected activity. However, some shirking will still take place, and some residual loss will persist.

^{87.} According to one commentator, "Many of the services provided by third-party brokers have been created in response to the technological changes that have shaken the investment world in recent years. They represent a dazzling array of computer-based services that have not, in large part, been available from the traditional full-service Wall Street firms." Julie Rohrer, Soft Dollars: The Boom in Third-Party Research, INSTITUTIONAL INVESTOR, Apr. 1984, at 73, 75 [hereinafter Soft Dollar Boom].

^{88.} Jensen & Meckling, supra note 76, at 309.

It is critical to understand that this residual loss provides the parties with an ever-present opportunity to increase their joint wealth by developing further solutions to the shirking problem. One obvious method to reduce shirking that is popular in other agency settings is for the principal to compensate the agent based on performance rather than by an hourly wage or a monthly salary. With performance-based compensation, the agent's wealth rises and falls with the principal's wealth. A less obvious way to deter shirking is to subsidize the agent's inputs.

Fund beneficiaries hire managers to identify and implement profitable portfolio trades; that is, trades that increase fund wealth. Management inputs consist of investment research, brokerage executions, and the manager's labor effort. All else being equal, the more inputs of given quality the manager devotes to the fund over the relevant range, the greater fund wealth will be. But this process is subject to the economic law of diminishing marginal returns; additional inputs yield successively smaller wealth increments. Just as the marginal wealth increment declines, the marginal opportunity cost rises as more and more inputs are invested in the fund. This situation is illustrated with a simple diagram in Figure 1, where the MW curve represents the marginal wealth increment from additional management inputs, I, and the MC curve represents the marginal cost. ⁸⁹ Under these circumstances, the optimal level of inputs to the fund is equal to I*, the point where the MC curve intersects the MW curve. Any deviation from I* by the agent will reduce fund performance and the parties' joint wealth.

The shirking problem can be analyzed by considering how fund managers are compensated and the extent to which they bear the costs of management inputs. Most funds pay their managers a share of average fund net assets, or "net asset value," with the sharing percentage typically in the range of fifty basis points (one-half of a percentage point). Designating the manager's share of portfolio wealth increments as α , the curve αMW represents the marginal wealth increment received by the manager from devoting additional inputs to the fund. If the manager is required by the terms of his advisory

^{89.} Of course there are an infinite number of potential marginal cost curves. MC represents the lowest marginal cost attainable in a competitive environment. It thus assumes that investment research, portfolio executions, and manager labor effort are being contributed in the optimal combination for any given value of I.

^{90.} WIESENBERGER (1988), supra note 27, at 14.

^{91.} In most cases, α will exceed the manager's sharing percentage. Assuming a fifty basis point advisory fee, if the manager generates an increase in fund wealth of \$100 in year one, his share is fifty cents. If this wealth increase persists (the securities hold their value) the manager will receive an additional fifty cents in year two, and so on. In the limiting case where the wealth increase is permanent, the manager is expected to live forever and holds his position indefinitely, his marginal wealth gain will equal the discounted present value of a fifty-cent perpetuity. At an interest rate of 10%, this perpetuity will be worth \$5, or 5% of net asset value. This observation casts serious doubt on the widespread belief that the conventional management fee structure leads fund managers to focus solely on short-run performance. Compared to, for example, a one-time 5% share of any wealth increase the manager generates in a given year, the

contract to bear all the costs of management inputs, he will tend to shirk by devoting too few inputs to the fund. 92 Rather than I*, he will choose I $_{o}$ inputs, where the αMW curve intersects the MC curve.

Note that at I₀ the marginal wealth increment to the fund from additional management inputs is substantially greater than the marginal input cost. This difference, summed from I₀ to I*, illustrates the loss in wealth that fund beneficiaries experience due to shirking by the manager and also represents the parties' potential wealth gain from developing further solutions to the shirking problem. One response is for fund beneficiaries to take an active role in monitoring the manager. However, this monitoring is next to impossible in many funds, and few fund beneficiaries show any inclination to do it. Fortunately there are other solutions to the shirking problem. The most obvious, and the one that occurs to some extent in many agency settings, is for the fund to bear the cost of those inputs specifically devoted to enhancing fund wealth. Since the manager shares α of both fund expenses and fund wealth, he bears some of the costs and benefits of the subsidy. The ideal subsidy is that which gives him an equal share of all the costs and benefits of operating the fund because this would naturally lead him to choose I* inputs. This would be impossible, however, because to subsidize the manager's labor effort the fund would have to pay him an hourly wage in place of, or in addition to, a share of fund wealth.

It is no accident that as a matter of long-standing convention most funds bear the cost of portfolio executions. MC_e represents the manager's marginal input cost when the fund bears the cost of pure portfolio executions, exclusive of any research costs. The effect of this subsidy on the manager's choice of inputs is illustrated by the intersection of MC_e and αMW . 93 Rather than choos-

smaller but recurring management fee provides him with a greater incentive to generate permanent, as opposed to transitory, increases in fund wealth. So long as there is any possibility of early termination by the manager, the longer payout on the recurring fee gives the manager a long-run stake in fund performance.

^{92.} Once again, my emphasis is on understanding the parties' choice of organizational form, and not on chastising fund managers for being indolent; my goal is to discern the methods used by the parties to minimize the residual wealth loss that is due to agency costs. Most fund managers are no doubt sincere, honest, hardworking people. Indeed, sincerity, honesty, and the work ethic go a long way in the real world toward reducing agency costs, but, as with the other methods, they cannot be relied on to eliminate all residual losses. If nothing else, fund managers face imperfect information about the preferences of fund beneficiaries, and this alone will lead to some residual loss even for the most scrupulous managers.

^{93.} To be exact, since MW reflects the *net* increment to fund wealth, when the fund begins bearing the cost of portfolio executions the MW curve will shift down. By definition, however, the new MW curve will intersect MC_e at exactly 1*. The αMW curve will also shift down, but only by α times the cost of portfolio executions. Thus, as illustrated, I_e will still fall to the right of I_e. This observation raises an important point. Being paid a share of fund wealth, the manager is also a fund beneficiary; he enjoys a pro rata share of fund benefits and bears a pro rata share of fund expenses. He is at least in some respects a co-owner. In fact over the long-run the manager may receive virtually all the excess returns from fund management. This windfall results because investors will compete to capture any excess returns. In an openend mutual fund, for example, shareholders will increase their contributions to the fund in anticipation of any excess returns the manager is able repeatedly to produce. As fund assets expand, the manager's total compensation and other expenses of management will also increase. The fund will continue to expand until investors exhaust all excess returns. The empirical evidence showing that shareholders earn no risk-adjusted

ing I₀ the manager will have an incentive to choose I_e inputs, which is closer to I*, and the residual loss due to shirking will be reduced but not eliminated.

This solution poses several problems. First, to the extent the manager can convert portfolio executions into personal wealth, he will have an incentive to do so, and we again encounter the perquisite problem. As in any agency setting, this occurs from time to time in investment management, 94 but it does not appear to be a widespread problem. In any event, such conduct certainly falls outside the section 28(e) safe harbor and has little to do with the issues addressed in this Article. Second, to the extent the portfolio executions are a viable substitute for either investment research or the manager's labor effort, the manager will have an incentive to use these inputs in a suboptimal combination. In managing the portfolio, he will tend to conserve on investment research and his own labor effort, treating portfolio executions as a free good in an attempt to gain an advantage. 95 As a result, the MC curve will shift up. Though there is little evidence on the subject, it is difficult to imagine how uninformed and essentially random trading could possibly allow the manager to gain an advantage. Moreover, in the long-run, the manager's fee will adjust to mitigate this effect. In any event, subsidizing portfolio executions is advantageous for fund beneficiaries so long as the new marginal cost curve, MC_e, lies below MC. Under such circumstances the total level of inputs chosen by the manager will be closer to I* and the associated wealth loss will be smaller.

So long as I_e lies to the left of I*, fund beneficiaries might be able to further reduce the shirking problem by subsidizing both portfolio executions and investment research. Assuming managers are unable to convert research into personal wealth at will, this response will be advantageous. One way for the fund to subsidize investment research is to allow managers to charge all research costs to the fund. In this case, the fund faces a far more extreme problem of preventing suboptimal substitution by the manager. The manager will tend to treat both brokerage and investment research as free goods and to overutilize them in order to conserve on his own labor effort. Unlike the situation in which the fund subsidizes only portfolio executions, it is fairly easy to imagine how the manager could gain by substituting unlimited research and portfolio executions for his own labor effort. To the extent that he can purchase

abnormal returns from mutual fund ownership is therefore unsurprising. See, e.g., Mutual Fund Performance, supra note 18. Although we cannot observe the costs of managers' labor effort, these costs are no doubt substantial and once deducted from their fees will provide only a normal, risk-adjusted return over the long run.

^{94.} See, e.g., Goodrich Securities, Inc., supra note 8.

^{95.} Recall that the manager bears α of any expenses paid by the fund but 100% of his own expenses. All else equal, by substituting fund expenses for his own the manager will cause fund wealth to decline. His share will decline accordingly, but at the margin the decline will be smaller than the amount he saves by reducing his own expenses.

only nonconclusory research inputs with bundled brokerage, as appears to be the case for third-party research, he has little to gain from suboptimal substitution because he must also input his own labor effort to identify profitable portfolio trades. This scenario suggests that the research provided by full-service brokers, which has tended in the past to be conclusory in nature, may be an especially troublesome source of agency costs; the manager may substitute bundled brokerage for his own labor effort and may impose more of the costs of identifying profitable portfolio trades on the fund.

Another way for the fund to subsidize investment research would be to tie it together with portfolio executions, so that the manager could increase his use of one only by increasing his use of the other. Bundled brokerage—especially in the form of soft dollars, where the ratio of investment research costs to execution costs is fixed—achieves exactly this result. Even though the manager will still have an incentive to substitute bundled brokerage for his own labor effort—with a fixed ratio, he must use investment research and executions in equal proportions and cannot strategically substitute one for the other. With the fund bearing the costs of bundled brokerage, the manager will devote an even greater level of inputs to identifying profitable portfolio trades. 96

According to accepted agency theory, fund managers have insufficient incentive to identify profitable portfolio trades. This section has shown how bundling might serve to reduce the shirking problem with respect to one dimension of investment management. By subsidizing both portfolio executions and investment research and by tying them together in a fixed ratio (at least for the case of soft dollars), bundling appears to align managers' incentives with the interests of fund beneficiaries. Seen in this light, Burgunder and Hartmann's assertion that managers who pay for research themselves would continue purchasing "until the last hard dollar spent for the research equalled the value of that research to the clients"97 is indefensible. So, too, is their conclusion that soft dollars necessarily lead managers to purchase too much research. The SEC's concern in FMS, that the floor placed on some combination of research and brokerage by the managers "could provide an improper inducement to excessive trading," is similarly misplaced. 98 While it is true that the FMS arrangement may have led to increased trading by the managers, according to the incentive alignment hypothesis we cannot conclude that the increased trading was necessarily excessive. In fact, given that the FMS arrangement was administered by the central advisor of the fund complex, whose function was

^{96.} If the manager can be constrained to using inputs of research, execution, and his own labor effort in exactly the proportions reflected by MC, he will choose fewer than I^* inputs because he bears 100% of the costs of his own labor effort but receives only α of the benefits.

^{97.} Burgunder & Hartmann, supra note 8, at 139.

^{98.} Fund Monitoring Services, supra note 8, at 80,425.

to monitor the independent fund managers' performances, it seems extremely unlikely that the FMS arrangement would have led to excessive trading.

C. Aligning Brokers' Incentives

Portfolio brokerage constitutes another source of agency costs. Like the manager, the broker is an agent. Even if an individual client could capture all the benefits from monitoring, he would suffer a residual wealth loss because monitoring execution quality would remain costly and therefore subject to optimization rather than maximization.⁹⁹ The broker might shirk by searching carelessly for better prices, inadvertently leaking the news of impending trades. 100 He might also consume perquisites by front-running the client's trades or by purposely leaking the news to an associate. When the client is an investment manager, the agency problem is compounded because the manager receives only a fraction of the gains from monitoring the quality of the broker's executions. As with investment research, the manager will tend to do too little monitoring, and leakage and price impact are even more likely to occur. The available evidence indicates that price impact comprises a substantial portion of institutional trading costs and can have a substantial long-run effect on fund performance. 101 As with investment research, one would therefore expect the parties-in this case the manager, brokers, and fund beneficiaries-to develop further solutions to align appropriately the agents' incentives.

Although there might be alternative explanations for price impact on institutional portfolio trades, evidence exists that it is partly caused by leakage. One well-known empirical study shows that certain fund managers routinely pay higher-than-average brokerage commissions and incur higher-than-average market impact costs on their trades. The simple inference from this observation is that some managers are lazy or incompetent. But, such a situation cannot persist indefinitely. A more plausible inference is that some managers are generally reputed to have superior information and frequently lose some of the information's value to interlopers through leakage. To minimize the problem,

^{99.} See Kenneth D. Garbade & William L. Silber, Best Execution in Securities Markets: An Application of Signaling and Agency Theory, 37 J. FIN. 493 (1982).

^{100.} The broker is in the unenviable position that any additional price search, no matter how carefully performed, increases the likelihood that an interloper will be able to anticipate the impending trade.

^{101.} See, e.g., Stephen A. Berkowitz et al., The Total Cost of Transactions on the NYSE, 43 J. FIN. 97, 98 (1988).

^{102.} Id. The authors note the inconsistency of their data with the widespread expectation of a tradeoff between commission levels and market impact. They recognize that these variables might be simultaneously affected by other variables, such as trade difficulty. They attempt to control for trade difficulty, in part, by adjusting for trade size but find only mixed evidence of a tradeoff. While it is true that informed trades will tend to involve larger blocks of securities, not all large block trades result from superior information. Furthermore, there is a tendency to break informed trades into smaller blocks to avoid attracting attention. Presumably, this dilutes the measurable effects of adjusting for observed trade size as a proxy for trade difficulty.

they must pay their brokers a commission premium to execute their relatively difficult trades, but at the margin they tolerate some amount of price impact, just as the equi-marginal principle from economics would predict.¹⁰³

The widespread importance many brokers place on "order flow" also indicates the prevalence of the leakage problem. Any broker who traded exclusively on behalf of those with superior information would face the same leakage problem as the traders he represented. No one would trade with him except at a price that reflected his clients' superior information. This scenario accounts for the willingness of many broker-dealers to pay a cash rebate for retail order flow. Only by regularly performing a large number of routine, uninformed trades can a broker hope to disguise his informed trades and preserve his informed clients' anonymity. 105

The leakage problem also arises in a dealer setting, where managers often choose to hire a broker to search for prices among various dealers. This of interpositioning is often criticized because it requires the manager to pay two intermediaries rather than one. The anonymity provided by the broker may well pay the broker's commission, however, by reducing the price impact that would otherwise arise due to leakage by the dealers, who have no direct fiduciary duty to the manager.

The problem of price impact is often characterized as one of assuring "best execution" by the broker. It arises because price impact is virtually impossible to measure in the short run. 106 How the parties overcome the problem can be understood by reference to a well-known economic model concerned with quality assurance. 107 In this simplified model there are two otherwise similar goods, one high quality, the other low quality. Consumers are willing to pay

^{103.} The equi-marginal principle simply holds that a rational wealth maximizer will equalize net benefits at the margin for all close substitutes.

^{104.} See PAYMENT FOR ORDER FLOW COMMITTEE OF THE NATIONAL ASSOCIATION OF SECURITIES DEALERS, INC., INDUCEMENTS FOR ORDER FLOW (1991). This scenario also accounts for the tendency of fund managers to distribute their trades across a large number of different brokers. It also accounts for the fact that brokerage and price impact costs tend to be lowest for the most actively-traded securities.

^{105.} Indeed, there is some evidence to indicate that active brokers routinely have the lowest market impact costs. Berkowitz et al., *supra* note 101, at 109.

Further evidence of the leakage problem comes from index funds. Among institutions, these funds are known to pay extremely low brokerage commissions, in some cases putting their monthly commission business out for competitive bids. HARVEY E. BINES & JAMES L. WALTERS, THE LAW OF INVESTMENT MANAGEMENT ¶ 8.04, at 8-32 n. 108 (1978 & 1986 Supp.). One explanation for this observation is that they do no investment research. All their trades are necessarily uninformed, merely reflecting the need to follow a stated benchmark of portfolio weights. As a result, any broker who enters the market to trade on behalf of an index fund can simply announce, with his client's permission, the identity of the client to other traders. To the extent the broker has established a reputation for honesty in such situations, other traders will deal with him at more advantageous prices, and his client's trading costs will be less than on otherwise identical trades. Of course reputations for honesty are costly to establish, so that the index fund will have to compensate the broker with a slight premium above his short-run marginal execution costs.

^{106.} Berkowitz et al., supra note 101, at 98-101.

^{107.} See, e.g., Benjamin Klein & Keith B. Leffler, The Role of Market Forces in Assuring Contractual Performance, 89 J. Pol. Econ. 615 (1981).

a higher price for the high quality good, and, of course, the high quality good is also more costly to produce. This model resolves the problem of consumers' inability to distinguish the high quality good from the low quality good prior to purchasing it (when pre-purchase inspection costs are fairly high and the good comprises a fairly small portion of the consumer's budget). Examples of such goods include fast-food, gasoline, over-the-counter medicines, and overnight motel lodging.¹⁰⁸

In the absence of some method of assuring quality, consumers will be unwilling to pay a price above the producer's cost of providing the low quality good. Consequently, only the low quality good will be provided. The problem faced by a producer who wants to specialize in providing high quality goods is how to convince consumers that he will not cheat them by deceptively lowering quality. To guarantee against cheating, the producer might post a performance bond in the form of a large, sunk capital investment that is entirely specialized to the continued provision of the high quality good. Subject to this constraint, the form of the capital investment will be that which provides the highest possible value to consumers. 109 As long as the producer maintains quality, he earns a price premium above the short-run marginal cost of producing the high quality good. Due to competition, however, the premium need only be sufficient to provide a normal return on his sunk capital investment. For this solution to work, consumers' response to quality cheating by the producer must be rapid enough that the one-time gain from cheating is less than the long-term gain from maintaining quality. 110 If the producer cheats consumers, the deception would soon be discovered, news of it would spread, and consumers would eventually terminate their purchases of what the producer touts as the high quality good. Most importantly, the producer would lose the entire value of his sunk capital investment. The specialized, non-salvageable nature of the capital investment thus serves as a performance bond, signalling to consumers that the producer will not cheat them by deceptively lowering quality.

Institutional portfolio brokerage fits this model almost exactly. In terms of price impact, execution quality is impossible for the manager to assess prior to purchase, and even after-the-fact small deviations in quality are notoriously difficult to measure because of the inherent noisiness of securities prices. Only over the long course of a trading relationship can the manager realistically hope to make an accurate assessment. In the context of institutional portfolio broker-

^{108.} See Cartel Rents, supra note 16, for an analysis of the quality assurance problem in gasoline markets under a refiners' cartel.

^{109.} Generally, any brand name capital fits this requirement. Oftentimes a firm's brand name is closely connected with tangible capital, such as signs or globes bearing the firm's logo, that has virtually no value in any other use. McDonald's golden arches are the standard example.

^{110.} This condition is met if the difference between the high quality price and the cost of producing the low quality product, multiplied by the number of sales the producer can make before consumers terminate purchases, is less than the discounted present value of the high quality price premium.

age, the performance bond consists of the broker's prepayment of the manager's research bill. At least with soft dollar brokerage the broker pays the research bill up-front, debits the manager's account, and hopes the manager provides him with the promised trades.¹¹¹ If the broker cheats by front-running or by providing low quality executions, he risks being terminated with his account balance unpaid.¹¹² The balance of the manager's account serves to bond the quality of the broker's performance. It is important to note that this bond is entirely sunk and therefore completely specialized to the continued provision of high quality executions. This result is due, in part, to the SEC's ruling that the manager can be under no legal obligation to perform the promised trades without risking the loss of his section 28(e) protection.¹¹³ Although stories of "welshing" by fund managers are uncommon, they have indeed appeared in the financial press from time to time,¹¹⁴ and in one reported case a soft dollar broker became insolvent as a result.¹¹⁵

This view of bundling gives renewed meaning to the notion that managers "pay up" for investment research. When the trades are made, well after the research has been bought and paid for, the bundled brokerage commission substantially exceeds the broker's short-run marginal execution cost for high quality executions. The difference is the quality assuring premium. Due to competition, this premium provides the broker with only a normal return on the investment he makes in supplying the manager with up-front research. Moreover, given the manager's tendency to do too little investment research, bundling is the ideal form of bond for the fund.

Bundling not only provides the manager with the tools to identify profitable trades, but because it imposes a tie-in sale within the limits of continued patronage, it encourages him to do a minimum number of trades. In any given time period, any broker who cajoles a manager into doing unprofitable trades merely for the sake of generating brokerage commissions risks reducing the manager's performance and losing his future patronage. Soft dollar brokers report that when a manager is unable to generate the promised trades, the broker will defer his trading obligations until the next accounting period, bearing the interest cost on the manager's account receivables in the process. Thus, by providing up-front research, the soft dollar broker holds a long-term

^{111.} I have been unable to determine the extent to which full-service brokers provide research up-front in the expectation of future commissions. In part, this is due to their relatively informal system of accounting for bundled research.

^{112.} One soft dollar broker recently confided to me that his current "account receivables" totaled roughly six million dollars. On Wall Street, where news travels notoriously fast and a person's reputation is his stock in trade, a soft dollar broker who clearly cheats one client, say, by front-running, might well be terminated by a large number of his other clients. The deterrent effect of prospective termination on the diligence with which soft dollar brokers execute trades therefore appears substantial.

^{113.} Scope of § 28(e), supra note 61.

^{114.} Soft Dollar Boom, supra note 87, at 78.

^{115.} Maher, supra note 2, at 18.

stake in both the quality of his executions and his own research recommendations to the manager.¹¹⁶ Finally, by bonding the quality of the broker's executions, up-front bundled research mitigates the negative effects of the manager's tendency to devote too few resources to monitoring execution quality.

IV. Predictive Power and Policy Implications

This Article has developed an alternative hypothesis suggesting that soft dollar brokerage mitigates the agency problems associated with institutional portfolio management. Soft dollar brokerage aligns properly the incentives of fund managers, and therefore has played a critical role in the evolution of the securities firm. By any reasonable standard, this evolution has generated considerable benefits for all investors. This Part briefly traces the implications of the incentive alignment hypothesis. Section A examines its predictive power as a positive hypothesis, and section B examines its legal and regulatory policy implications as a normative hypothesis.

Full service brokers account rather informally for bundled research, with the broker's research obligations only loosely tied to the trading commissions he expects from the manager. This method is perfectly reasonable, since over time the parties know whether their expectations are being met. With soft dollars, however, the broker's research obligations are explicitly tied to the cash value of future trading commissions. By precisely metering them, soft dollars allow these obligations to be priced and delegated to others. With specialty research originators producing the manager's research inputs, the soft dollar broker is free to specialize in performing better quality executions, while the manager specializes in transforming research inputs purchased with soft dollars into profitable investment decisions. Soft dollars therefore appear to be an innovative form of exchange lying somewhere between the firm and the market that reduces the costs of transacting and allows these functions to be specialized and performed by entirely separate firms. Given the intensely competitive nature of securities brokerage, investment research, and investment management, the benefits from specialization have no doubt been passed on to fund beneficiaries and other investors. It is important to note that none of the criticisms of soft dollars focus specifically on what is really novel about them, the formality with which they account for bundled research and the specialization of functions that results.

^{116.} There are literally thousands of research products available to a manager. Prudently selecting between them could drain the manager's time. Most managers provide their brokers with information about their trading strategies and the composition of their portfolio. Given that the broker has made it his business to know and understand the available research products, he is no doubt in a good position to understand the manager's research needs and to recommend the appropriate research products, including the many new products that are introduced from time to time. This saves the manager from having to incur considerable search costs. The better the broker is at identifying appropriate research products, the more trading the manager will do and the more trades the manager is likely to place with the broker. See, e.g., Fred Williams, Soft Dollars Debated, PENSION & INVESTMENT AGE, Apr. 3, 1989, at 14.

^{117.} Soft dollar brokerage appears to be a reasonable alternative to full-service brokerage for providing the benefits of bundling to investment managers and their funds. Ronald Coase's work on the nature of the firm can be used to explain why soft dollars are useful to formally account for bundled research. Ronald H. Coase, The Nature of the Firm, 4 ECONOMICA 386 (1937). Coase proposed that the extent of the firm will be determined by an equality between the cost of performing transactions within the firm and the cost of performing transactions in the market between separate firms. An obvious implication of this hypothesis is that when the cost of using market exchange falls relative to the cost of performing transactions within the firm, the extent of the firm will shrink. Where two functions were previously performed by one firm, they will come to be performed by two firms instead. The deregulation of brokerage commissions reflected a fundamental change in the costs of market exchange, largely due to changes in technology that altered the optimal structure of property rights. By formally accounting for the costs of bundled research, soft dollar brokerage has played an important role in this process.

A. Predictive Power

Both the unjust enrichment hypothesis and the incentive alignment hypothesis give plausible answers to the question of bundling. Ultimately, the validity of either hypothesis can be determined only by examining the consistency of its empirical predictions with facts in the real world.¹¹⁸ It would be convenient if the effect of bundled research on fund performance could be directly measured. Unfortunately, such an undertaking appears futile. In the absence of an extremely large database, the inherent noisiness of fund performance and non-research expenses would undoubtedly overwhelm any attempt to find a statistically significant relationship between bundled research and fund performance. Instead, any empirical test must be aimed at how bundled research varies with other observable behavior. Both the unjust enrichment hypothesis and the incentive alignment hypothesis predict that bundling will lead managers to research and trade more than they would otherwise do. According to the unjust enrichment hypothesis, this increase necessarily injures fund beneficiaries; according to the incentive alignment hypothesis it will, within limits, enhance fund wealth. But even if some amount of bundling makes fund beneficiaries better off, managers may transact beyond the point at which further research and trading add to fund wealth. Nothing in the incentive alignment hypothesis rules out this result as a logical possibility.

Since both hypotheses rely on agency costs, the issue can be examined by identifying situations in which agency costs differ systematically and then noting whether the use of bundled research varies as either hypothesis would predict. To provide a clear test, of course, situations in which the two hypotheses generate conflicting predictions must be identified.

Several persuasive tests can be found in the setting of the pension fund. Most large corporations establish pension plans to finance employee retirement benefits. The plan is typically administered by the corporation itself, acting as the plan's sponsor. In many cases the sponsor hires an outside manager to make investment decisions concerning fund assets. Recall from *Foley & Lardner* that the plan sponsor retains an ongoing duty under ERISA to monitor the manager's performance. There are two basic types of pension plans, defined contribution (DC) plans and defined benefit (DB) plans. In either type, employees contribute retirement premiums to the fund throughout the period of their employment. On retirement, however, those who contribute to DC plans will have a claim only to their pro rata share of the value of the fund. Employee benefits vary proportionally to fund performance. Furthermore, employees receive no guarantee and bear virtually all the variability in fund performance.

^{118.} Milton Friedman, The Methodology of Positive Economics, in ESSAYS IN POSITIVE ECONOMICS 3 (1935).

^{119.} Supra note 59 and accompanying text.

In DB plans, the employees contract with the plan's sponsor for a predetermined level of retirement benefits. The plan sponsor then sets up the pension plan to fund its future liabilities, contributing to the fund as necessary to generate the appropriate cash flows. Barring insolvency by the corporation, employees bear little or none of the variability in fund performance; rather, the corporation as plan sponsor bears it all.

Employees under both types of plans are dispersed and face extremely high costs in attempting to monitor the manager's performance. Instead, they rely on the plan sponsor's monitoring. Allocation of variability in the two types of plans determines agency costs. For otherwise identical corporate pension plans, the costs of monitoring sponsors will not vary systematically, while the benefits surely will. Unlike sponsors of DC plans, sponsors of DB plans receive 100% of the gains from monitoring, and their incentive to monitor is commensurately stronger. This situation suggests a set of preliminary implications. The unjust enrichment hypothesis predicts that sponsors of DB plans will prefer that their managers use no bundled research because bundling necessarily reduces fund performance. The incentive alignment hypothesis predicts that they will encourage some amount of bundling because bundling can actually improve fund performance.

Even under the unjust enrichment hypothesis, however, sponsors of DB plans will probably tolerate some amount of bundling. Past some point, further monitoring is just too costly; the sponsor will prefer to sacrifice ninety cents worth of fund performance rather than spend one dollar to prevent it. Yet, sponsors of DC plans will reach this point at substantially higher levels of bundling than will sponsors of DB plans because they receive virtually none of the benefits from monitoring. This result leads to a second set of implications. According to the unjust enrichment hypothesis, sponsors of DB plans will tolerate less bundling than the sponsors of otherwise identical DC plans. But, according to the incentive alignment hypothesis, sponsors of DB plans will allow roughly the same amount of bundling as sponsors of DC plans. In fact, they may even go out of their way to encourage some amount of bundling while the sponsors of DC plans would not find it worthwhile.

To test these predictions empirically, extensive data on the use of bundled research by the managers of DC and DB plans would be necessary. Unfortunately, such data is currently unavailable. In the meantime, it is possible to draw inferences from scattered casual evidence. This evidence indicates that plan sponsors, as a group, devote a considerable amount of time and attention to monitoring their managers. Moreover, they are fully aware of and vitally interested in how their managers allocate brokerage and the extent of bundling. While they often express concern that their managers may be using bundled

research to pay expenses that should come out of the management fee, most plan sponsors nevertheless tolerate a considerable amount of bundling. 120

As in *FMS*, plan sponsors often require their managers to direct trades to specific brokers from whom the sponsor receives some form of in-kind rebate, often performance monitoring services. ¹²¹ Indeed, one recent empirical study finds that portfolio consulting services and transaction cost analysis are the two products plan sponsors most often purchase with directed brokerage. ¹²² Although the SEC's decision in *FMS* found that plan sponsors receive no protection under section 28(e)'s safe harbor in directing portfolio brokerage, in many cases the plan sponsor has either expressly provided by contract that the fund should pay certain expenses or has vertically integrated into fund management. The monitoring function that plan sponsors perform is in many cases amenable to the same type of agency cost analysis as fund management. In this regard, however, it is interesting to note that the sponsor of a DB plan is not, in any economically meaningful sense, an agent for fund beneficiaries. As the sole stakeholder in fund performance, the plan sponsor is in fact the principal.

For the most part, the discussion has yet to make a distinction between third-party research provided by soft dollar brokers and in-house research produced and provided by full-service brokers. In terms of the shirking problem, both types of bundling appear to have identical effects. In terms of quality assurance, these effects differ slightly. For soft dollar brokerage to provide a performance bond, the broker must provide the research up-front. Most, but by no means all, third-party research is provided by soft dollar brokers in this fashion. In any event, soft dollar brokerage breaks the temporal connection between the receipt of research inputs by the manager and the execution of portfolio trades. Thus, the parties may adjust the balance of accounts to more efficiently perform the quality assuring function. Variations in the account balances held by soft dollar brokers provide a fruitful source of testable implications. All else being equal, where the returns from quality assurance are higher, we would expect the balance of the soft dollar account to be in the manager's favor, with the broker holding account receivables for future trades. For example, managers who use a broker for the first time will tend to use more up-front research. Once a trustworthy trading relationship has been established, the importance of the soft dollar account as a bonding mechanism declines. Similarly, soft dollar brokers who are new to the industry would be expected to hold relatively large net account receivables. Finally, where managers' costs of assessing execution quality are higher, soft dollar

^{120.} SEC Action Memorandum, supra note 62, at C2-8.

^{121.} Fund Monitoring Services, supra note 8; supra text accompanying note 73; see also SEC Action Memorandum, supra note 62, at C6-8.

^{122.} Blume, supra note 6, at 38.

brokers would be expected to hold larger net account receivables, as for relatively large trades or those in unusually noisy securities.

The extent to which in-house research occurs up-front is difficult to determine with full-service brokerage, because of the informality with which the broker accounts for bundling. Given the long-standing business reputations of most full-service brokers, no immediate need to establish a performance bond exists. For them the benefits of up-front research are much smaller, and the theory predicts that they will provide research closer in time to the associated trades. Indeed, to the extent in-house research is conclusory, it must occur immediately following identification of the trading opportunity because of information decay.

The quality assurance hypothesis does not postulate that soft dollar brokers necessarily provide the highest quality executions available in the market, only that the quality of their executions is higher than it otherwise would be. Fullservice brokers have little empirical evidence to support the claim that they provide better execution than soft dollar brokerage. For extremely large, difficult trades in noisy or illiquid securities where price impact is potentially great, managers may prefer to use full-service brokers. Not only do these brokers have established business reputations to bond the quality of their performance, but the cost to the manager of monitoring execution quality relative to the benefits is fairly low, simply because of the large dollar value of the transaction. For smaller, less difficult trades that cannot be classified as "no-brainers," however, the managers' monitoring costs are likely to be too high. It may be in the interest of the fund for the manager to pay a lower commission, net the advanced research rebate, and rely instead on the quality assurance provided by the rebate. Unlike the established full-service firms, soft dollar brokers must rely on a more immediate method of bonding execution quality.

One recent empirical study of soft dollars reports that 75% of investment managers were "almost always or always" satisfied with the quality of execution by firms that provide in-house research, while only 57% of managers were similarly satisfied with the quality of execution by firms that provide third-party research. Yet the same study finds that 30.9% of all brokerage commissions went to soft dollar brokers to purchase third-party research, compared to 45.7% to full-service brokers to purchase in-house research. Iz4 Given that gross per share commissions differ little between the two types of brokerage, Iz5 the equi-marginal principal implies that managers must be getting something from soft dollar brokers to match the benefits they would receive with full-service

^{123.} Id. at 39. The study also finds that full-service firms receive a disproportionate share of the "potentially more difficult orders." Id.

^{124. &#}x27;Id. at 38.

^{125.} Id.

brokerage. Most likely, that "something" is better investment research. This implication is consistent with widespread industry reports that third-party research is much better than in-house research. This perception may be true for at least two reasons. First, securities brokerage is only one of the many functions performed by full-service firms. In spite of the Chinese walls that are said to exist between various divisions of these firms, their research recommendations are subject to internal conflicts of interest that have led to a general sense of distrust held by many investment managers. The research division of a full-service firm, for example, will not likely be permitted to make a negative recommendation about securities underwritten by the firm's investment banking division. Also, in-house research by these firms is still subject to favoritism and its attendant problems.

B. Policy Implications

With few exceptions, the SEC has consistently narrowed the safe harbor protection of section 28(e). Most recently, the agency ruled that soft dollar payments on dealer trades will receive no protection. Soon thereafter, the NASD submitted a letter to the staff of the SEC urging that the agency require fund managers to provide detailed disclosure of their soft dollar arrangements. The NASD made no such request in regards to the less formal bundling provided by full-service brokers. No doubt partially in response to this letter, the SEC has resolved to investigate the soft dollar controversy in its upcoming "Market 2000" study. These events are just a shadow of the widespread animosity towards and misunderstanding of soft dollar brokerage that exists among regulators and financial market commentators. Everyone, it seems, knows that soft dollars deserve to be condemned without the benefit of taking time to assess either their probable or actual effects on the behavior of market participants and ultimately on fund beneficiaries. 128 Indeed, few soft dollar critics have inquired vigorously enough even to recognize that the arguments against soft dollars apply with equal force to all bundled research. This connection, of course, has been entirely lost on those who criticize soft dollars for partially obscuring the costs of fund management. It seems anomalous to condemn soft

^{126.} See, e.g., SEC Action Memorandum, supra note 62, at C3 n.2; William Power, Wall Street Research Faulted by Big Institutional Investors, WALL ST. J., July 31, 1991, at C1; Soft Dollar Boom, supra note 87, at 78-80.

^{127.} See, e.g., Ed Leefeldt, Cutting the Strings and Doing It Alone on Wall Street, BLOOMBERG BUS. NEWS, Aug. 1992, at 16; Michael Siconolfi, At Morgan Stanley, Analysts Were Urged to Soften Harsh Views, WALL St. J., July 14, 1992, at A1.

^{128.} Rawlins Slates, supra note 13. Mr. Peter Rawlins, chairman of the London Stock Exchange, has publicly condemned soft dollars purely because they fail the "smell test." See also Peter Rawlins, Speech at the Annual Conference of the National Association of Pension Funds (Feb. 28, 1992).

dollars because they only partially reveal what is entirely hidden from view with other forms of bundled research.

The novel insights of the incentive alignment hypothesis suggest a complete and careful re-analysis of the fiduciary duties of institutional brokers, fund managers, and pension plan sponsors. Unfortunately, such an analysis is beyond the scope of this Article. Nevertheless, a few recommendations are in order. First, section 28(e)'s safe harbor should be extended to pension plan sponsors when they act in their fiduciary capacity as monitors. Effective monitoring clearly carries with it the inherent authority to act with discretion concerning fund assets, even if only by exerting control over the fund manager. Moreover, careful monitoring by a plan sponsor can have a significant effect on fund performance. Working backwards, it seems reasonable to infer that any exercise of discretion over a fund that stands to have such a profound effect on fund performance deserves to qualify as "investment discretion" under section 28(e). Indeed, this interpretation lies well within the bounds established by section 3(a)(35) of the Securities Exchange Act of 1934 in defining investment discretion. The SEC's failure to provide such protection has led the parties to resolve this ambiguity through costly contractual provisions in the plan document. It may also have led some plan sponsors to sacrifice the gains of specialization by vertically integrating into fund management.

Another implication of the incentive alignment hypothesis is that dealer trades should once again be given the protection of section 28(e). Bundling research into the dealer's mark-up or mark-down provides the same benefits to the fund from subsidizing the manager's research as on broker trades. With dealer trades, however, there is ample evidence to suggest that leakage, selfdealing, and other problems are just as bad or worse than with broker trades. 129 Unlike brokers, dealers have no general common law fiduciary duty to either the fund or the manager to deter misdealing. In addition, dealers are generally not required to disclose the terms of their trades, making it difficult for fund managers to evaluate their performance. The role of soft dollars in providing up-front research in order to bond the quality of the broker-dealer's performance is, therefore, much more compelling in the context of dealer trades. Finally, the exclusion of dealer trades from safe harbor protection appears to apply only in those cases where the bundled research has been explicitly accounted for with soft dollars. Traditional broker-dealers, who provide inhouse research on an informal basis, have not been restricted, which has no doubt given them a considerable advantage in trading certain securities.

The incentive alignment hypothesis further implies that careful consideration should be given to repealing or amending section 11(a) of the Securities

^{129.} See, e.g., Monroe W. Karmin & Vincent Del Guidice, Membership has its Privileges in the U.S. Debt Market, BLOOMBERG BUS. NEWS, Aug. 1992, at 16; Rohrer, supra note 12, at 55.

Exchange Act of 1934. As previously discussed, this section prohibits anyone who exercises investment discretion over a managed account from effecting trades on behalf of that account on an organized exchange. Recall also that funds that have vertically integrated into brokerage are free to initiate trades as long as they are routed through an unaffiliated broker for final execution. Reports in the financial press suggest that floor traders often monitor closely and emulate the trades of the prominent funds' brokers. This is a form of leakage and, in essence, it allows floor traders to free ride on the investment research of fund managers. A repeal of section 11(a) has been proposed in Congress in recent years in order to curb this practice; it should receive serious consideration.

Conclusion

Where property rights are problematic, market participants often develop innovative ways to reduce the wealth losses that result from agency problems. Precisely because soft dollars are an innovative and often unusual method of enforcing property rights, the natural tendency is to condemn the innovators as either anticompetitive or downright dishonest. 131 Like the renowned "man on the spot" in F. A. Hayek's Nobel Prize winning essay, The Use of Knowledge in Society, 132 the innovators may neither know nor care about the broader social benefits of their actions, and are in turn likely to be at a disadvantage when called upon to defend themselves in the public policy arena. This view fits nicely with economic explanations for the SEC's role in the deregulation of fixed commissions. Greg Jarrell, former Chief Economist at the SEC, found that prior to deregulation the SEC appears to have been captured by the more prominent members of the industry it was created to regulate 133—namely the NYSE and its established, full-service member firms. For much of its history prior to deregulation, the SEC systematically sought to enforce the NYSE's cartel, primarily through the regulation of minimum commissions. Only with the rise of regional exchanges and other off-board trading alternatives was the SEC's political support for minimum commissions overwhelmed by "consumer" interests, in this case those demanding institutional portfolio brokerage. In the spirit of Jarrell's work, Jonathan Macey and David Haddock argue that the SEC's preference for the NYSE has lingered in the post-deregulation era. They find that rather than developing a "national market system," as Congress

^{130.} See, e.g., Salwen, supra note 82.

^{131.} See, e.g., Ronald H. Coase, Payola in Radio and Television Broadcasting, 22 J.L. & ECON. 269 (1979).

^{132.} F.A. Hayek, The Use of Knowledge in Society, 35 A.E.R. 519 (1945).

^{133.} For early analyses of the capture theory of regulation see George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. 3 (1971); Sam Péltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211 (1976).

envisioned for the Securities Acts Amendments, ¹³⁴ the SEC has instead continued to support the NYSE's monopoly by maintaining off-board trading restrictions, limiting delisting by corporations, and protecting the specialist's trading advantages. Macey and Haddock make the following insightful observation:

[T]he economic theory of regulation predicts that the owners of investments [specific] to an industry—in the present case, the investments consist of the infrastructure and human expertise of the exchanges and their members—will seek regulation whenever innovations make potential new forms of competition threatening. The legislative body usually gives a regulatory agency powers that enable the agency, allegedly in the "public interest," to require [uniform] behavior that before regulation only the "most reputable" members of the regulated industries practiced. This policy has the political advantage of appearing to retard "unethical" practices. But, in a way not nearly so apparent, the policy hampers the innovation of techniques that new entrants otherwise may have introduced. Indeed, these new techniques may have been the principal attraction of the entrants from the consumer's viewpoint. 135

This observation is particularly telling in the context of soft dollar brokerage. With few exceptions, the SEC's interpretations of section 28(e) have favored full-service brokers and other established industry interests at the expense of soft dollar brokers and investment managers. The main exception came with the SEC's liberalized interpretation of "investment research" in conformity with the legislative history of section 28(e) to include anything that provides "lawful and appropriate assistance to the money manager." This interpretation was timed roughly with the London Stock Exchange's Big Bang deregulation of fixed commissions in 1986. Whether consciously or not, the sudden threat of lost trading volume to the London Exchange may have influenced the SEC's ruling and temporarily spared the soft dollar industry from protracted strangulation at the behest of powerful vested interests. It remains to be seen whether this process has begun anew with both the exclusion of dealer trades from section 28(e)'s safe harbor and calls for onerous disclosure requirements.

^{134.} See Securities Acts Amendments § 7, supra note 36.

^{135.} Macey & Haddock, supra note 19, at 319-20 (emphasis in original). It is important to note that this view of the SEC's regulatory role does not require conscious motivation by the members of the SEC staff. It requires only that the powerful vested interests that are trying to repel the forces of change "have an advantage in presenting timely arguments and information before the Commission." *Id.*, at 319 n.15.

In this Article I have argued that soft dollars are an innovative form of organization that enhances fund wealth by reducing agency problems, facilitating vertical disintegration and promoting specialization in securities brokerage, investment research, and investment management. Further evidence of the effects of soft dollar brokerage awaits extensive empirical work. In the meantime, soft dollars and other forms of bundled research should receive the presumption of legitimacy that Congress intended when it passed section 28(e).

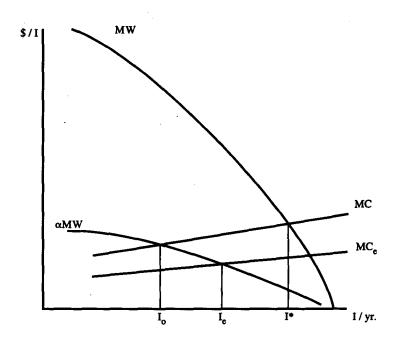


FIGURE 1 - Management Inputs