An Empirical Study of Mutual Fund Excessive Fee Litigation: Do the Merits Matter?

Quinn Curtis
University of Virginia School of Law*

John Morley
University of Virginia School of Law**

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ABSTRACT: Building on the U.S. Supreme Court's recent decision in *Jones v. Harris Associates*, this paper presents the first comprehensive empirical study of mutual fund excessive fee liability under section 36(b) of the Investment Company Act. We use a hand-collected dataset of nearly all excessive fee complaints filed between 2000 and 2009 to investigate several topics, including the relationship between fee levels and the odds that funds would be targeted by excessive fee suits, the relationship between fee levels and suit outcomes, the relationship between excessive fee suits and subsequent fee changes, and the relationship between excessive fee suits and subsequent asset flows. Our most basic finding is that although fees had some ability to predict which funds would be targeted, the strongest predictor of targeting was family size: funds in larger families were much more likely to be targeted than funds in smaller families.

* Associate Professor of Law, University of Virginia School of Law. qcurtis@virginia.edu.

** Associate Professor of Law, University of Virginia School of Law. jmorley@virginia.edu. We thank Julie Wulf and three anonymous referees for editorial advice and substantive comments. We thank Peter Hilton, Bryce Lowder, Matthew Pearl, Michael Pergler and Stephen Sovinsky for excellent research assistance. We also thank James Benedict, William Birdthistle, Richard Evans, Richard Hynes, Louis Kaplow, Stefan Lewellen, Peter Molk, Eric Roiter and Roberta Romano, as well as participants in the George Mason Law and Economics Colloquium, the Harvard Law School Law and Economics Seminar, the Conference on Empirical Legal Studies and the American Law and Economics Association Annual Meeting for comments and suggestions. The Yale Law School Center for the Study of Corporate Law and the John R. Raben/Sullivan & Cromwell fund at Yale Law School provided research support.

1. Introduction

This paper presents the first comprehensive empirical study of mutual fund excessive fee liability under section 36(b) of the Investment Company Act of 1940 (ICA). This unusual form of liability allows shareholders and the SEC to sue fund advisers based simply on the theory that a fund's fees are too high, even if the fees have been fully and accurately disclosed.

Our results rely on a hand-collected dataset of 91 consolidated lawsuits filed against the advisers of 2,770 open-end mutual funds between the beginning of 2000 and the end of 2009. These suits represent all or nearly all complaints alleging a violation of section 36(b) during our study period, with the exception of a few suits that grew out of the market-timing and late-trading scandals of 2003 and 2004.

We start by examining which factors predicted which funds would be targeted for excessive fee suits. In some of our tests, fees positively and significantly predicted whether a fund would be targeted. The probability that a fund would be targeted rose only very gradually as fees increased, however, and we find that the size of a fund's complex (i.e., the total amount of assets in all funds operated by the fund's adviser) was a stronger predictor of targeting than fees. In fact, funds in the smallest one-third of families were almost never affected by suits during our study period, even though they were the most likely to charge fees at the extreme high end of the fee distribution. We also study the relationship between board independence and targeting and find no strong evidence to suggest that board independence is associated with the probability of targeting.

We next study the relationship between fees and case outcomes and discover that fees were positively associated with the incidence of settlements and negatively associated with dismissals. We then conclude by studying how funds changed after being targeted by excessive fee suits. We analyze whether fees changed and find some evidence that targeted funds actually increased their fees relative to untargeted funds. We also find some evidence that funds and families targeted by excessive fee suits actually attracted more investment after the filing of the suits than comparable untargeted funds did.

To be clear, because we have no exogenous variation to exploit, we cannot confidently opine on the existence or absence of causal relationships. We can, however, confidently point to certain associations, and these associations may at least suggest the existence or absence of causal relationships.

Excessive fee liability has recently attracted substantial scholarly and public attention. In March 2010, the United States Supreme Court rendered a landmark decision on the scope and future of excessive fee liability in the case of *Jones v. Harris Associates L.P.*[1] Before reaching the Supreme Court, the case entangled Seventh Circuit Judges Frank Easterbrook and Richard Posner, both former University of Chicago Law School professors and pioneers of the law-and-economics movement, in a widely discussed dispute about the basic terms of excessive fee liability. Easterbrook argued that such liability should be limited only to cases involving fraud and misconduct in the setting of fees. Posner argued for maintaining liability for the simple excessiveness even of fully

[1] Jones v. Harris Assocs. L.P. (*Jones I*), 527 F.3d 627 (7th Cir. 2008), *reh'g denied*, (*Jones II*) 537 F.3d 728, 729 (7th Cir. 2008) (Posner, J., dissenting), vacated and remanded, (*Jones III*) 130 S. Ct. 1418 (2010).

disclosed fees. The Supreme Court sided with Posner and maintained the status quo in the circuit courts, allowing liability even for fully disclosed fees.

Excessive fee liability gained still further prominence in September of 2010 when the SEC announced a new initiative to investigate excessive mutual fund fees under section 36(b) (Volz 2010). The SEC has never before used its authority under the statute.

Excessive fee litigation can also provide a unique perspective on securities class action and corporate derivative litigation generally. The study of these forms of litigation has long been animated by questions about whether the merits of these lawsuits matter in determining which defendants are targeted and how cases are resolved, or whether defendants simply pay settlements in order to avoid the expense and risk of litigation irrespective of the defendants' actual liability. A major obstacle to discerning whether the merits matter in these suits is that the merits are generally very hard to perceive. In a conventional securities class action, for example, it is impossible to say for sure whether potential and actual defendants actually committed fraud, because fraud is extremely difficult to perceive objectively.

By contrast, the merits of excessive fee lawsuits are uniquely easy to perceive. We can directly observe the central facts in fee lawsuits by using the Center for Research in Securities Prices' (CRSP) mutual fund database. The database includes all fees in the entire universe of mutual funds as well as a number of other useful data points. To be sure, the application of the law to these facts is frequently uncertain due to the vagueness of the applicable legal standard. However, our ability at least to perceive the facts with clarity makes it easy to compare how the law treats cases with similar merits.

Although no excessive fee suit has ever produced a verdict for plaintiffs, excessive fee liability has broad practical significance for the mutual fund industry and its $12 trillion in assets. Our dataset shows that about a quarter of all funds in existence since 2000 have been affected by at least one excessive fee suit in that time. These suits are costly to defend and settlements are not uncommon. The threat of excessive fee litigation therefore casts a long shadow over the mutual fund industry. Practitioners widely believe that the desire to avoid fee liability has pushed mutual fund boards and managers to adopt a variety of costly governance rituals. Many of these rituals are useful as evidence in litigation, but their intrinsic value to investors has been questioned (Sterngold 2012, Morley and Curtis 2010, Spatt 2006).

2. Institutional Background

2.1 *Standard for Liability*

Mutual funds are typically operated by external organizations known as "advisers" or "managers," such as Fidelity, Goldman Sachs, or Vanguard. These advisers became subject to excessive fee liability in 1970, when Congress added section 36(b) to the ICA. In relevant part, section 36(b) reads:

> [T]he investment adviser of a registered investment company shall be deemed to have a fiduciary duty with respect to the receipt of compensation for services, or of payments of a material nature, paid by such registered investment company, or by the security holders thereof, to such investment adviser or any affiliated person of such investment adviser….

Section 36(b) by its terms says very little about what exactly advisers' "fiduciary duty" with respect to fees entails. In 1982, the Second Circuit Court of Appeals addressed this

problem by adopting an interpretive standard in *Gartenberg v. Merrill Lynch Asset Management, Inc*., 694 F.2d 923, 928 (2d Cir. 1982):

> [T]he test is essentially whether the fee schedule represents a charge within the range of what would have been negotiated at arm's-length in light of all of the surrounding circumstances .... To be guilty of a violation of § 36(b), ... the adviser must charge a fee that is so disproportionately large that it bears no reasonable relationship to the services rendered and could not have been the product of arm's length bargaining.

Subsequent opinions interpreted *Gartenberg* as having identified six factors that structure the analysis of the main standard in the preceding quotation (Krinsk v. Fund Asset Mgmt., Inc., 875 F.2d 404, 409 (2d Cir. 1989):

> (a) the nature and quality of services provided to fund shareholders; (b) the profitability of the fund to the adviser-manager; (c) fall-out benefits; (d) economies of scale; (e) comparative fee structures; and (f) the independence and conscientiousness of the trustees.[2]

Gartenberg made it clear that even advisers who charge fees below the rates prevailing among similar funds may be subject to liability. The court stated that "[r]eliance on prevailing industry advisory fees" by itself "will not satisfy § 36(b)" (*Gartenberg v. Merrill Lynch*, 694 F.2d 923, 929 2d Cir. 1982).

The *Gartenberg* standard was widely accepted until 2009, when Judge Frank Easterbrook of the Seventh Circuit expressly rejected the standard in *Jones v. Harris Associates L.P.* Easterbrook replaced *Gartenberg* with a standard that would have

[2] "Fall-out benefits" refer to benefits advisers receive indirectly from managing a fund, such as increases in the amount of brokerage or private financial counseling business that an adviser might gain as a result of its work with a fund.

allowed liability only in cases involving fraud or misconduct.[3] In a dissent from a denial of rehearing *en banc*, Judge Richard Posner heavily criticized Easterbrook's standard and advocated maintaining the *Gartenberg* standard.[4] In March 2010, the Supreme Court vacated Easterbrook's decision and expressly adopted the *Gartenberg* standard.[5]

2.2 *Unique Procedural Characteristics*

Section 36(b) offers plaintiffs' lawyers two procedural advantages relative to conventional class and derivative actions. First, plaintiffs' lawyers can bring a suit on behalf of all shareholders in a fund without having to obtain class certification or to make demand on a fund's board. Section 36(b) allows suits to be brought on behalf of funds, but not on behalf of fund investors. Section 36(b) suits thus cannot be maintained as class actions and are similar in function to derivative suits.[6] The U.S. Supreme Court has held, however, that unlike conventional derivative suits, section 36(b) suits are not subject to state laws that require shareholders to demand that boards of directors pursue the suits before the shareholders are allowed to do so.[7]

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[3] Judge Easterbrook said, "[a] fiduciary duty differs from rate regulation. A fiduciary must make full disclosure and play no tricks but is not subject to a cap on compensation." *Jones I*, 527 F.3d, at 632.

[4] *Jones'* primary innovation over *Gartenberg* was to resolve disagreement among the circuit courts about the admissibility of evidence relating to differences between an adviser's fees for its retail and institutional clients. After *Jones*, such evidence is clearly admissible. *Jones II*, 537 F.3d, at 729.

[5] *Jones* III, 130 S. Ct. at 1429.

[6] Note, however, that section 36(b) claims may be pled alongside other claims that are pled as class actions.

[7] The basic theory is that because section 36(b) suits may be initiated only by shareholders or by the SEC, the funds themselves have no authority to pursue the suits and so boards have no say

Second, since section 36(b) suits are neither class actions nor conventional derivative actions, they are not subject to Rules 23 or 23.1 of the Federal Rules of Civil Procedure, which require judicial approval and public disclosure of settlements. Excessive fee suits may thus be settled under Rule 41(a), which requires neither judicial approval nor public disclosure so long as both parties agree or a defendant has not yet filed an answer or a motion for summary judgment. This fact has great importance for our analysis: it means that we cannot perceive the terms of most settlements.

A few other procedural peculiarities also warrant mention. First, section 36(b) suits may be brought only in federal court. Second, damages are limited to disgorgement of the portion of fees charged in violation of the fiduciary duty and no damages are recoverable for any period prior to one year before a complaint is filed. Third, sales loads are expressly exempted from section 36(b).[8] Lastly, only the individuals or entities that actually receive a fund's fees may be sued. This means that the defendant in a typical section 36(b) suit is an adviser, rather than a fund. In this paper, therefore, we speak of funds being "affected" or "targeted" by suits, rather than being "sued."

Section 36(b) authorizes not just investors but also the SEC to bring suits on behalf of funds. The SEC has never actually used this authority,[9] but in September of 2010, Robert Khuzami, the Director of the SEC's Division of Enforcement, announced a

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over whether shareholders can pursue the suits. Daily Income Fund v. Fox, 464 U.S. 523, 535 & n.11 (1984).

[8] The conventional explanation for this exception is that sales loads are regulated by FINRA and excessive fee liability under section 36(b) would therefore be redundant.

[9] Transcript of Oral Argument at 20-21, Jones v. Harris Associates L.P., 130 S. Ct. 1418 (2010).

Mutual Fund Fee Initiative, which is expected to result in examinations of mutual fund investment advisers concerning their duties under section 36(b) (Volz 2010).

3. Literature Review

Empirical evidence on the functioning of section 36(b) is limited. In a brief study, Coates (2010) collected a sample of 13 excessive fee suits and graphically plotted the unadjusted fees and size of the funds affected by these suits against those of unaffected funds. Johnson (2008) analyzed procedural characteristics of 150 published judicial opinions that have cited *Gartenberg*, but did not attempt to identify the individual funds subject to these suits or to study their characteristics. Henderson (2010) attempted a rough estimate of the costs of excessive fee litigation based on conversations with practitioners and the number of published opinions that have cited *Gartenberg.*

The dearth of empirical evidence has left an important analytical gap. In the absence of data on the actual functioning of excessive fee liability, debate has focused almost entirely on the problem this liability is intended to solve, rather than on the value of this liability as a solution to that problem. In other words, the debate has centered on whether the mutual fund fees are excessive, rather than on whether liability is the right way to address fee excessiveness. (Freeman & Brown 2000, Coates and Hubbard 2007, Birdthistle 2009, Hubbard, et al. 2010).[10]

[10] Several amicus briefs in the *Jones* case dealt with the issue similarly. Brief for Birdthistle, et al. as Amici Curiae Supporting Petitioners, Jones v. Harris Associates, 130 U.S. 1418 (2010) (No. 08-586), 2009 WL 1681458; Brief for Cohen, et al. as Amici Curiae Supporting Respondent, Jones v. Harris Associates, 130 U.S. 1418 (2010) (No. 08-586), 2009 WL 2896315; Brief for Litan, et al. as Amici Curiae Supporting Petitioners, Jones v. Harris Associates, 130 U.S. 1418 (2010) (No. 08-586), 2009 WL 1759017.

For summaries of the large empirical literature on whether the merits matter in securities class actions and corporate derivative litigation, we refer readers to Cox and Thomas (2009) and Choi (2004). Our sense of this literature is that although a few studies have suggested that the relationship between merits and outcomes is weak (Alexander 1991), there appears to be a growing consensus that the relationship is reasonably strong.

What most interests us, however, is that this literature consistently confronts a set of serious methodological difficulties. The trouble is that the merits of securities class action and corporate derivative suits are very difficult to perceive. The fraud and other wrongful acts that sit at the heart of most of these suits are hard to see and hard to measure. Researchers have therefore relied on a number of proxies for these suits' merits that are admirable but ultimately imperfect.

Thompson and Thomas (2004), for example, studied settlements in class actions alleging director misconduct in corporate acquisitions. Since Thompson and Thomas could not perceive whether the alleged misconduct actually occurred, they instead proxied for this misconduct by studying the differences between acquirers' initial offer prices and the prices the acquirers ultimately paid to non-settling shareholders to complete the transactions. Similarly, Cox, Thomas and Bai (2008) examined a set of class actions filed between 1993 and 2005 and proxied for these suits' merits by including measures of provable losses, whether the SEC brought enforcement actions, defendant companies' total assets, and the length of class periods. Choi (2006) and Johnson, et al. (2007) likewise use accounting restatements, evidence of insider selling and SEC enforcement actions.

We are aware of only one other attempt to study litigation specifically against mutual fund advisers. Choi and Kahan (2007) studied the market-timing and late-trading scandals of 2003 and 2004 and their effect on asset flows and investors' willingness to invest in funds involved in the scandals.

4. Data

4.1 *General Description*

Our data consist of a hand-collected set of 91 distinct excessive fee cases filed between the beginning of 2000 and the end of 2009 against advisers of open-end mutual funds.[11] We collected the data from complaints and other filings available in PACER, a fee-based online indexing system for federal court filings. We included in our dataset only cases that met the following criteria: (1) either the initial complaint or a consolidated or amended complaint alleged a violation of section 36(b) of the ICA; (2) the complaint did not allege market-timing or late-trading activities; and (3) the initial complaint was filed on or after January 1, 2000. We imposed criterion (2) because although many of the numerous lawsuits that grew out of the market-timing and late-trading scandals of 2004 alleged violations of section 36(b), their allegations primarily concerned fraud and misconduct, rather than fee levels. We imposed criterion (3) because few cases initiated prior to January 1, 2000 had docket sheets with electronic documents on PACER.

We identified section 36(b) cases by first searching the databases of federal complaints in Westlaw, LexisNexis and Bloomberg Law for the phrases "investment

[11] We treat each group of consolidated lawsuits as a single case and take the relevant dates from the lead case (which was almost always the first case filed).

company" and "36(b)." We also searched Westlaw's "allfeds" database, which includes judicial opinions and briefs (as distinct from complaints). We found further cases in a memo prepared by attorneys at Milbank, Tweed, Hadley & McCloy LLP, which summarized recent litigation involving mutual funds and their advisers (Benedict, et al. 2008). Milbank has a leading mutual fund adviser defense practice, and it publishes the memo annually through the Practicing Law Institute. We also consulted with several experienced mutual fund litigators, who confirmed that we found all or substantially all excessive fee complaints during our study period.

We obtained data on returns, total net assets, family affiliations, fees, and investing styles from the Center for Research in Securities Prices' (CRSP) mutual fund database. To match the CRSP dataset to our hand-collected dataset, we manually searched the CRSP fund header and historical fund header tables for the names of funds that were listed in each complaint and were in existence on the date of the complaint.

Although 56 of our 91 cases were settled or voluntarily dismissed by the plaintiffs, we were able to perceive details of these settlements in only five cases. The reason, as described above, is that settlements in section 36(b) cases are not subject to the same judicial approval and public disclosure requirements as settlements in most class action and derivative suits.

4.2 *Summary Description of Section 36(b) Litigation*

The *Jones v. Harris Associates* case revealed that there is very little publicly available evidence about even very basic characteristics of section 36(b) litigation,

including the number and nature of suits. One of our primary contributions is therefore simply to provide a basic description of this litigation.

Most of the cases in our dataset belonged to distinct clusters of suits. Each cluster tended to initiate with a single core set of plaintiffs' lawyers (with assorted local co-counsel), and to adopt the same theories of liability in standard-form complaints. The complaints in each cluster tended to be filed within a few days or months of each other. During our study period no group of plaintiffs' lawyers had substantial involvement in more than one cluster of suits.

The most interesting cluster involved a set of 12 complaints filed by two South Carolina plaintiffs' law firms, Johnson Pope Bokor Ruppel & Burns and Richard Patrick Westbrook & Brickman, and their co-counsel. Eleven of these cases were filed between March 2004 and April 2005. The *Jones* case that reached the Supreme Court was part of this group of suits. We have characterized these and several other unrelated cases as "pure excessive fee" cases because they included no factual allegations that had the flavor of fraud, deceit or other operational failing; the complaints argued only that the fees in the relevant funds were excessive. In addition to the 12 cases brought by the South Carolina firms, there were 13 other "pure excessive fee" cases, most of which were among the few cases in our dataset that did not originate in clusters.

Another important cluster involved what we call "brokerage kickback" allegations. This cluster contained 25 cases, nearly all of which were filed between January and August of 2004 by Milberg LLP, the well-known securities class action law firm, and various co-counsel. The cases generally claimed that the defendant adviser

firms improperly rewarded brokers for selling funds shares, but these cases also alleged that the funds' fees were excessive.

Another group of 31 complaints originated with the law firms of Baron and Budd PC and Cauley Bowman Carney & Williams PLLC and alleged that several different advisers acted negligently by failing to make their funds participate in class action settlements paid by the funds' portfolio companies. These cases alleged violations of section 36(b), but did not expressly allege that the funds' fees were excessive.

Another six cases sued the advisers of funds that charged Rule 12b-1 fees after the funds had stopped selling shares to new investors. Rule 12b-1 fees may be charged only to pay for marketing and distribution expenses. These cases also alleged that the funds' fees were excessive.

Institutional investors did not meaningfully participate as plaintiffs in any of the cases in our dataset. This is consistent with the argument we have made elsewhere (Morley and Curtis 2010) that large and sophisticated mutual fund shareholders will not actively participate in excessive fee cases, because they will always prefer instead simply to redeem and invest elsewhere.

< Table 1 >

Table 1 presents summary statistics and indicates that most lawsuits affected all or most of a defendant adviser's funds simultaneously. Because some of the 91 suits in our dataset affected more than one family, the 91 suits collectively affected at least one fund in a family on 116 separate occasions. In 57 of the 116 instances in which a family was affected, the complaints named every fund in the family. Across all instances, the average

portion of a family's funds named in each lawsuit was 69%. As we explain below, the suits that singled out funds within families tended to be those that alleged excessive fees.

4.3 Variables and Summary Statistics

We construct a dataset in which each fund is observed quarterly. The unbalanced panel includes all open-end funds in the CRSP database with populated Lipper Objective Code fields and Management Company Identifiers beginning January 1, 2000 and ending December 31, 2009. The CRSP database maintains separate observations for each share class in a fund. Since none of the complaints in our dataset specified which individual share classes they targeted, the smallest unit of observation in our study is a fund. We compute fund characteristics other than size, including returns and fees, as the size-weighted mean of share class characteristics. We use fund names to identify share classes within funds, since many funds do not report a Portfolio Identifier in CRSP. Table 1 presents summary statistics for the fund-quarter observations in the panel.

A fund is identified in a quarter as a suit observation if a section 36(b) complaint was filed against the fund during the quarter. We construct a dummy variable that takes the value 1 if the observation is a suit observation and 0 otherwise. The Fund Size variable is the average total net assets of all of a mutual fund's share classes during a quarter. Family Size is the total Fund Size of all funds with the same Management Code in the same quarter minus the Fund Size of the observed fund. Annual Return is the cumulative return over the four quarters prior to the observation. Style-Demeaned Return is the Annual Return minus the mean Annual Return of all funds in the same investing style as the observed fund on the observed date.

We adjust for investing style in calculations of returns and fees, because fees and risk/return profiles may vary systematically by investing style. A fund that invests in small foreign companies, for example, is likely to have higher research and trade execution costs than an S&P 500 index fund and is also likely to be riskier. Data on investing styles come from the CRSP Lipper Objective Codes field. The Lipper Objective Codes are alphanumeric identifiers that correspond to 166 distinct investing style categories. The categories include, for example, S&P 500 index funds, Tennessee municipal debt funds, utility funds, mid-cap growth funds, and so on. Because the Lipper codes categorize index funds with other index funds that use the same index, we do not include a separate variable for index funds in any of our analyses. The Lipper Objective Codes are widely used in mutual fund econometrics to control for investing style.[12]

The main variable of interest for our study is a fund's expense ratio. Expense ratio reflects almost all of a fund's material expenses. It is important to include almost all types of expenses, because section 36(b) by its terms applies to any and all "payments of a material nature" made by a fund. The only fees we exclude are load fees, which are one-time charges that advisers assess at the time investors initially buy or redeem their shares. The proceeds of these fees are often used to pay sales commissions and other distribution expenses. We exclude these fees because section 36(b)(4) of the ICA expressly excludes them from the section 36(b) fiduciary duty. Congress' rationale for exempting these fees

[12] Researchers also occasionally use subtler methods, but unfortunately we cannot use those methods here. We cannot restrict the sample to domestic equity funds or classify based on factor loadings and other returns measures that have been developed for equity funds (Sharpe 1992; Brown and Goetzmann 1997; Chan, et al. 2002), because excessive fee suits target funds in all investing styles, including bond funds.

was probably that at the time section 36(b) was added to the ICA in 1970, the NASD already regulated load fees through its rules on sales commissions.

The value of the "Unadjusted Expense Ratio" variable in our dataset for each quarter is the mean of CRSP-reported expense ratios (minus load fees) over the four quarters prior to the quarter of an observation.[13] We average the variable over the four quarters prior to an observation to be consistent with section 36(b)(3), which allows recovery of fees paid after the date one year prior to the commencement of a suit and not before. Excluding the current quarter also addresses the possibility that the filing of a suit endogenously affected funds' expense ratios in the quarters in which the suits were filed.

We also calculate three modified expense ratio measures that adjust for potential systematic differences in fees across funds in different investing styles. We call the first of these measures "Style-Demeaned Expense Ratio." We calculate this variable by subtracting from each observation's Unadjusted Expense Ratio the mean expense ratio among all funds in the same investing style on the same date.

The second expense ratio measure we call Expense Quantile. We rank all of the funds in a given investing style on each date and assign each fund a number between 0 and 1 equal to the fraction of funds in the same investing style on the same date that charged lower fees than the observed fund. Expense Quantile prevents us from overweighting styles in which expenses vary greatly by expressing fees in a manner that is unrelated to the variance of an investing style's expense ratio distribution.

[13] For a given date the CRSP database gives the expense ratio for the most recently completed fiscal year. We date-shift this data to obtain the expense ratio that was actually charged in each quarter and then take this value as an input in our rolling average.

The third expense ratio measure we call Unexplained Expense Ratio. We calculate this by first pooling our sample of fund-quarter observations and using ordinary least squares to regress Unadjusted Expense Ratio on Fund Size, Family Size, Style-Demeaned Returns, a variable that indicates the percentage of the fund's net assets held in institutional share classes, and a dummy variable that flags funds that had share classes with a 12b-1 fee in excess of 0.25%. We include the 12b-1 fee dummy because many funds use the revenue generated by 12b-1 fees to compensate brokers who provide potentially useful ancillary services such as financial advice (Bergstresser, et al. 2009).[14] We also include date and style dummies. We use the coefficients from this regression to calculate a predicted expense ratio for each fund-quarter observation. We next calculate the differences between the actual expense ratios and the predicted expense ratios for each observation—i.e., the residuals—and average them over the four quarters prior to the current quarter to obtain the Unexplained Expense Ratio. This variable is similar in concept to excess compensation measures that are often used in studies of executive compensation (e.g., Core, Holthausen and Larcker 2010).

We separately report some of our results for the full set of cases and also for two subsets of cases. The first subset, which we term "Fee Allegation cases," includes only cases that alleged that the targeted funds' fees were excessive and excludes cases that alleged a violation of section 36(b) but did not allege that fees were excessive. This

[14] We use 0.25% as the cutoff for 12b-1 fees, because this cut-off is well above the mean 12b-1 fees in funds that do not use brokers (Bergstresser, et al. 2009) and because the SEC uses 0.25% as the dividing line to differentiate funds that can advertise themselves as "no-load" funds from funds that cannot.

subset thus includes the "pure excessive fee" cases, the brokerage kickback cases, and the cases that alleged improper charging of 12b-1 fees, but excludes the cases that alleged failures to participate in class actions and the remaining miscellaneous cases. A second subset, which we call "Pure Excessive Fee cases," is a nested subset of the Fee Allegation cases and includes just the cases that alleged *only* that a fund's fees were excessive and did not allege fraud or other wrongdoing.

Notably, there was a close correlation between whether a case alleged excessive fees and whether it selectively targeted individual funds within a family (rather than targeting the entire family). Almost all of the suits that contained excessive fee allegations—more than 90%—selectively targeted individual funds, while the great majority of suits that contained no fee allegations—about 75%—targeted entire families.

5. What is an "Excessive" Fee?

It is not clear what exactly makes a fee "excessive." Section 36(b) by its terms speaks only of a "fiduciary duty" and says nothing about excessiveness. And the only reference points for excessiveness in the *Gartenberg/Jones* standard are the hypothetical "arm's length bargain" that a truly independent board might have obtained and the "reasonable relationship" that fees must bear to the value of the "services rendered."

Since we cannot say what the content of a hypothetical arm's length bargain should have been for any given fund or what exactly makes a fee "reasonable," our analysis can only be comparative, rather than absolute. Instead of asking whether funds that charged excessive fees were targeted by excessive fee suits, we can ask only whether

funds with relatively high fees were more likely to be targeted than comparable funds with relatively low fees.

A related complication is that there are at least two different ways of conceptualizing how fees ought to be compared. One way is to focus on advisers' profitability. Under this way of thinking, a fee might be excessive if it generates revenue for an adviser that greatly exceeds the adviser's costs of running the fund. This approach implies, for example, that a small adviser with no economies of scale could freely charge higher fees than larger advisers if its expenses were higher than those of larger advisers. The Unexplained Expense Ratio measure addresses this adviser-centered way of thinking. Unexplained Expense Ratio constructs a simple model to predict an adviser's costs and then assesses whether a fund's fees are higher than the model would predict.

Another way of thinking about fee excessiveness focuses instead on investors and what they would have to pay for comparable services. The logic is that investors care about fees, not about advisers' profits. Given two funds that provide similar risks and returns, investors should always prefer the fund with the lowest fees, regardless of which fund's advisers are more profitable. Under this investor-centered way of thinking, if an adviser charges higher fees than advisers of comparable funds, the adviser may run afoul of section 36(b) even if its costs are also high. The Expense Quantile and Style-Demeaned Expense Ratio measures address this way of thinking. These measures simply compare funds that provide similar services and do not consider an adviser's costs or profitability.

The *Gartenberg/Jones* standard is ambivalent about these two ways of thinking about fees. The "reasonable relationship" and "arm's-length bargain" tests say nothing about this distinction, and the six factors that supplement these tests suggest both an interest in the investor-centered way of thinking (one of the factors is the fees charged by other funds providing similar services) and in the adviser-centered way of thinking (another factor is the profitability of the adviser).

6. Results

6.1 Targeting of Funds

We first examine the relationship between various fund and family characteristics and the probability that a fund or family was affected by a lawsuit. Intuition suggests that a number of characteristics might be related to the odds that a fund would become the target of an excessive fee suit. Obviously, one possible predictor is fees. Another is returns, because the *Gartenberg/Jones* standard assesses the reasonableness of fees in "relationship to the services rendered."

Another possible predictor is the size of funds and families. Plaintiffs' lawyers might disproportionately target larger funds and larger families for several reasons. Most obviously, plaintiffs' lawyers might simply seek deep pockets. Similarly, plaintiffs' lawyers' might sometimes receive percentages of total recoveries and might therefore seek the largest recoveries by suing advisers who manage the largest amounts of assets and thus charge the greatest total advisory fees. Perhaps less cynically, one might think that well-meaning plaintiffs' lawyers are attuned to the fact that large funds and families, by virtue of their size, can potentially inflict the greatest harm on investors. Assuming

plaintiffs' lawyer can only pursue a limited number of suits, they might reasonably target the largest advisers to achieve the greatest social good.

< Figure 1 >

Figures 1 and 2 present basic evidence on the relationships between fees and size and the probability that a fund would become the target of an excessive fee suit. Figure 1 presents density histograms that compare fund-quarter observations affected by suits to fund-quarter observations not affected by suits. Figure 1a compares Style-Demeaned Expense Ratios in observations in which a lawsuit was filed to all other observations and suggests that affected funds look substantially similar to unaffected funds. Figure 1b compares the natural logarithms of Fund Size in affected and unaffected funds and suggests strongly that affected funds are larger than unaffected funds. Figure 1c compares log Family Size in affected families and unaffected families. We classify a family as having been affected by a lawsuit if any of its funds were affected during the quarter. Figure 1c suggests that the families of affected funds are on average much larger than the families of unaffected funds.

< Figure 2 >

Figure 2 sorts fund-quarter observations by decile and shows graphs in which the percentage of fund-quarter observations affected by suits appears on the vertical axis and Unexplained Expense Ratio and Family Size appear on the horizontal axes. Figure 2a exhibits a clearly discernible upward trend in targeting as Unexplained Expense Ratio increases. This trend is gradual, however, and the percentage of funds targeted does not increase substantially at the high end of the fee distribution. Note also that a substantial

percentage of funds in the middle and low end of the distribution were targeted. Figure 2b shows a powerful relationship between family size and targeting, and it shows that funds in the bottom three deciles of Family Size were almost never affected by suits.

< Table 2 >

Table 2 presents the differences in means for the variables of interest between fund-suit observations in which a lawsuit occurred and fund-suit observations in which a lawsuit did not occur. We implement these comparisons as pooled OLS regressions of the variables of interest on the lawsuit indicator variable and date dummies. The regression model is:

$$y_i = \beta_1 * LawsuitIndicator_i + \beta_2 * DateDummy_i + \beta_3 * StyleDummy_i + \varepsilon_i.$$

We use OLS rather than a simple t-test for means comparisons to facilitate the inclusion of the date and style dummies. Because suits tend to target many funds in the same family, we cluster standard errors at the family level. For ease of interpretation, expense ratio variables are coded as percentages, rather than decimals. We implement the comparisons at the fund level and also at the family level by calculating family-level variables as the size-weighted averages of the fund-level variables for the funds in each family.

These comparisons show that targeted funds tended to be significantly larger and to come from larger families than funds that were not targeted and that targeted families were also larger. In the fund-level regression, the greater significance of Unexplained Expense Ratio is most likely a result of the fact that Unexplained Expense Ratio implicitly controls for family size, while the other fee variables do not. Similarly, in the

family-level analysis, most of the expense ratio variables are significantly negative; only the Unexplained Expense Ratio variable is significantly positive. This is consistent with Figures 1-2, which suggests that small families are rarely targeted by excessive fee suits. Thus, the only family-level fee variable that is positive is the one that adjusts for family size.

To get a more precise picture of which factors were related to the likelihood that a fund would become a target of an excessive fee suit, we run a series of pooled logit regressions. Table 3 presents the results. The dependent variable in the Table 3 regressions is an indicator of lawsuits that included a fee allegation. We ignore suits that did not allege fee excessiveness, since we do not expect fees significantly to predict the incidence of such suits. All regressions include date dummies and cluster standard errors at the family level. Results in Table 3 are reported as odds ratios.

< Table 3 >

Table 3 Panel A presents regressions in which the unit of observation is a fund. In regressions that include controls for the natural logs of Fund Size and Family Size as well as Style-Demeaned Returns, all three adjusted expense ratio variables are significant positive predictors of whether a fund was affected by a suit. Returns and Fund Size are generally not significant, but—consistent with Figure 1—Family Size is significant. The regressions provide strong evidence that Family Size mattered even apart from its possible correlation with fees, since fees are included as controls.

Table 3 Panel B attempts to model more subtly the relationship between expense ratios and the incidence of excessive fee suits that is depicted in Figure 2. Panel B sorts

the Expense Quantile and Unexplained Expense Ratio variables into deciles and assigns dummy indicator variables to all but the bottom decile. The results mostly confirm the relationship evident in Figure 2. The probability that a fund would be affected by a suit increases gradually in a linear fashion through most of the expense ratio distribution and levels off at the high end, declining in the highest decile.

We present p-values for a test of the difference between the coefficient for the highest expense ratio decile in each regression and the coefficients for the other deciles. These values measure how much a fund advisor would need to change its fees to obtain a statistically significant decrease in the likelihood of a lawsuit. Notably, for the Unexplained Expense Ratio model, we find no statistically significant difference in lawsuit incidence between even the highest and lowest deciles of fees.

Since many lawsuits targeted entire families, Table 3 Panel C treats families as the units of observation, rather than funds. The dependent variable takes the value 1 on an observation date if a suit targeted all of the funds in the observed family on that date (note that this excludes cases that singled out individual funds within the targeted families). The independent variables are the size-weighted average values for all funds in a family on the observation date. Panel C confirms the basic results in Panels A and B: expense ratios and family size mattered, but returns did not.

We also separately test the effect of average Unexplained Expense Ratios for the most expensive 25% and 10% of each family's funds, on the theory that plaintiffs' lawyers might be drawn to a family by its highest-fee funds, and might target other funds in the family simply to increase the suits' importance. The coefficients on Unexplained

Expense Ratio for these particularly high-fee funds in models 4 and 5 are higher than the coefficients for the simple family-wide average in model 2. The difference is slight, however, and is oddly somewhat less pronounced in the top 10% than in the top 25%.

< Table 4 >

Table 4 compares targeted and untargeted funds within the families in which some funds, but not all, were targeted. We identified 116 instances in which at least one fund was targeted by a lawsuit. This number exceeds the total number of suits, because some suits targeted more than one family. In 57 of these 116 instances, the lawsuits affected every fund in the family. In the remaining 59 instances, the lawsuits affected only a subset of funds in the family. For the 59 partially affected families, Table 4 reports the differences in means between the affected and unaffected funds in the same family. The means of all three of our adjusted expense ratio variables are significantly higher in affected funds than in unaffected funds. This evidence is consistent with the idea that plaintiffs' lawyers actively target funds with higher fees, conditional on targeting a subset of funds within a family.

Next, we test whether funds' susceptibility to fee lawsuits is influenced by the composition of their boards of directors, since one of the *Gartenberg* test's six factors is the board's independence. Because the CRSP mutual funds database does not include data about mutual fund directors, we collected this data by hand from Statements of Additional Information filed by funds on the SEC's EDGAR web site. The difficulty of collecting this data by hand prevented us from doing it for every fund in our population, and we thus used propensity-score matching to construct a paired sample of targeted and

untargeted funds whose non-governance characteristics suggested that they would be similarly susceptible to fee lawsuits (Rosenbaum and Rubin, 1985).[15] We obtained board composition data for 202 propensity-matched pairs. For targeted and untargeted funds, we compared the percentage of independent directors and whether the chairperson was independent. Surprisingly, targeted funds had significantly more independent directors—81% as compared with 75% for untargeted funds. A Wilcoxian signed-rank test gives a z-statistic of 4.812 on this difference. Using McNemar's test we find no significant difference in the likelihood that the chairperson is independent (p-value = 0.1843).

We caution that although the relationship between fees and the filing of excessive fee suits appears to be somewhat modest, our results do not necessarily rule out a very strong relationship. It is possible that the reason we observe a modest relationship is that excessive fee suits are so powerfully related to excessive fees that the threat of these suits has actually greatly reduced the frequency of excessive fees.[16]

This possibility seems unlikely, however. Section 36(b) is designed only to provide compensation, not deterrence. The only penalty under the statute is disgorgement of the excessive portion of an adviser's fees. An adviser therefore has little reason to reduce its fees in anticipation of a lawsuit. If it charges extra fees and then loses a suit,

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[15] We implement the propensity score match by first estimating the following logit regression for our entire population of funds:

$$TargetedFund = \alpha + \beta_1 * PercentileFee + \beta_2 * PriorReturn + \beta_3 * FundSize + \beta_4 * FamilySize + \varepsilon.$$

Using the betas from this model, we then construct a propensity score as the predicted probability that each fund observation would be a lawsuit observation. We match each fund that was affected by a lawsuit with the unaffected fund in the same style and quarter that had the closest propensity score.

[16] Hanley and Hoberg (2012), for example, find that the threat of litigation causes IPO issuers and underwriters to reduce litigation risk by underpricing and strategically disclosing information.

the only direct consequence is that the adviser has to give the extra fees back. It thus seems unlikely that the threat of section 36(b) liability has so thoroughly deterred excessive fees that we would be unable to observe a truly powerful relationship between fees and the filing of excessive fee suits if such a relationship actually existed.

Note that we have chosen not to address the role of plaintiffs' lawyers explicitly. This is because law firms are not characteristics of *funds*, which are our units of observation; rather, they are characteristics of *cases*. Thus, the only way to analyze the effect of law firms would be to partition the population into different cases brought by different law firms. There are too few cases to support such a partition for each firm, and so we instead partition by type of case (i.e., Fee Allegation, Pure Excessive Fee, etc.). This accomplishes something similar to partitioning by law firm, since law firms tended to be involved in only one type of case.

6.2 Case Outcomes

We also test whether fee levels were related to case outcomes. Table 5 presents our statistical results. Since almost all lawsuits targeted multiple funds, the units of observation in Table 5 are lawsuits. The expense ratio measures are thus the size-weighted averages for all funds affected by each suit in the quarter of the suit's filing or, in the lower rows, the size-weighted averages of the top 25% and top 10% most expensive funds.

< Table 5 >

Table 5 explores the relationships between fees and the outcomes of motions to dismiss and fees and settlements. We identify unsuccessful motions to dismiss as those

that were denied or granted only in part. Settlements are harder to identify. Under Rule 41(a) of the Federal Rules of Civil Procedure, settlements in section 36(b) cases do not have to be disclosed or approved by judges. We therefore cannot perceive directly whether most Rule 41(a) dismissals occurred because the defendants settled or because the plaintiffs simply chose to abandon their claims. We attempt to proxy for the occurrence of settlements by constructing an artificial measure. We coded a case as having been settled if either (a) the case produced an observable settlement, or (b) the case was voluntarily dismissed by the plaintiffs with prejudice. The logic behind condition (b) is that plaintiffs would only dismiss with prejudice and give up their rights to file again if they received some consideration in return. We exclude ongoing cases.

Our measures indicate that of the 78 cases in our population that had been resolved, 27 were dismissed and 20 were settled. These rates of dismissal and settlement suggest that excessive fee suits were somewhat less successful than ordinary securities class action suits. Evidence in prior studies has shown that in ordinary securities class actions, dismissals were apparently less common and settlements were apparently more common than in excessive fee suits (Choi 2006; Johnson, et al. 2006). The dismissal and settlement rates in excessive fee suits are roughly consistent with the rates found in a recent study found of insurance class action lawsuits, however (Pace, et al. 2007).

Because the populations in these analyses are small, we avoid regressions in favor of simpler methods. For each fee measure, Table 5 presents the difference in fees between dismissed and non-dismissed cases and between settled and non-settled cases. Broadly speaking, higher fees were associated with higher likelihoods of surviving

motions to dismiss and higher likelihoods of settlement, which is consistent with the notion that judges are processing these cases rationally.

We employ two tests of the statistical significance of the observed differences in means. One is a simple two-sample t-test. The other is the Kolmogorov-Smirnov test, which tests the equality of one-dimensional probability distributions. We include this test because it is nonparametric. The tests show in general that dismissed cases had lower fees than non-dismissed cases and settled cases had higher fees than unsettled cases, although the differences were not statistically significant in most analyses. We caution that the lack significance may be an artifact of the small sample size, and so readers should pay special attention to the confidence intervals on the difference in means tests.

< Figure 3 >

Figure 3 presents evidence on case outcomes graphically. It shows a quantile-quantile plot comparing the mean Style-Demeaned Expense Ratio in 300 quantiles of targeted funds based on the outcomes of the cases that targeted them. To be clear, unlike in Table 5, in Figure 3 the units of observation are funds and not lawsuits. This was necessary to obtain enough observations to make the plot intelligible. The plots in both Figures 3a and 3b stick very close to the 45-degree line, suggesting that fees were not strongly related to case outcomes.

It may be useful to summarize the small handful of settlements that we were actually able to perceive. For idiosyncratic procedural reasons, five cases produced

settlements that we were able to perceive.[17] Two of these were "brokerage kickback" cases. In one, involving the Columbia funds, the defendant advisers agreed to introduce breakpoint pricing for the funds, to disclose broker fee-sharing arrangements, and to reduce soft dollar research expenditures. The defendants made no payments directly to the funds, but the plaintiffs' attorneys received $450,000 plus expenses from the defendants. In the other brokerage kickback case, involving the Wells Fargo funds, the defendants paid $1.15 million into a settlement fund for people who purchased shares during a specified period. The plaintiffs' attorneys received a quarter of that amount, or $287,500, plus expenses.

Two of the remaining cases were a connected but unconsolidated pair of lawsuits involving pure excessive fee claims against a set of ING funds. The defendants agreed to settle both of these cases by paying $2 million to be divided among three funds. The attorneys received a fee of $105,776 plus expenses, which the court calculated using a modified lodestar method. The last settled case involved the Van Wagoner funds and alleged that these funds valued their portfolio securities incorrectly. The defendants agreed to add another independent director to the funds' boards and to involve the independent directors more closely in valuations. The defendants made no payments to the funds or plaintiffs, but paid the plaintiffs' attorneys $340,000 plus expenses.

6.3 Fee Changes in Targeted Funds

[17] The main reason was that these cases included other claims in addition to section 36(b) claims, and these other claims were subject to Rule 23 or 23.1 of the Federal Rules of Civil Procedure.

We next examine how fees changed in funds that were targeted by section 36(b) suits relative to other funds in the years after the suits were filed. Table 6 reports the changes in expense ratios in funds targeted by section 36(b) suits. The population includes only those funds that were affected by suits and for which data were continuously available for 36 months after the filing of the suits' initial complaints.

< Table 6 >

Because all of our expense ratio variables measure a fund's expenses relative to other funds in its investing style, a simple assessment of how these variables changed over time in targeted funds has the effect of controlling for market-wide and style-wide trends. The test compares the changes in targeted funds to the changes during the same periods in comparable untargeted funds.

We separate Table 6 into two panels to facilitate the use of appropriate units of observation. Panel A presents results for cases that affected only some of a family's funds. Since these cases affected only some funds in families, the unit of observation in this panel is a fund. Panel B presents results for cases that affected every fund in a family, and thus makes the unit of observation an entire family. Because Panel B performs the analysis at the family level, we take the size-weighted average expense ratios for all funds in the entire families, as well as the averages among the family's most expensive 25% and 10% of funds.

In Panel A, all of the fee changes are positive, suggesting—contrary to expectation—that funds targeted by excessive fee suits actually increased their fees relative to comparable untargeted funds during the same periods. In Panel B, the family-

wide average expenses increased, but expenses in the most expensive funds seem to have declined. The decrease in the fees of particularly high-fee funds provides some encouraging evidence that perhaps excessive fee suits helped to reduce at least the highest fees in affected families. Of course, we should be cautious about inferring the presence or absence of a causal relationship between lawsuits and fee changes, because there is potentially a large bias in the selection of funds and families for lawsuits.

6.4 Asset Flows in Targeted Funds

We next examine the possibility that excessive fee suits inflict a kind of "market penalty" on advisers by creating bad publicity and reducing investors' willingness to invest in the funds and pay advisers' fees. Our methods for testing this hypothesis follow closely the methods that Choi and Kahan (2007) used to investigate the effect of publicity about market-timing and late-trading scandals on mutual fund asset flows.

<Table 7 >

Table 7 presents the results of an OLS regression that evaluates the changes in asset flows in the year after an excessive fee suit is filed. In models 1 and 2, the unit of observation is a fund, and in models 3 and 4, the unit of observation is a family. Accordingly, in models 3 and 4 all variable values are the size-weighted averages for the funds in each family. The dependent variable is the average of monthly fund flows during the observed quarter, divided by the average flows for all funds in the same investing style. The independent variable of interest, Suit Year, is an indicator that takes a positive value if a fund or family was affected by a suit in the quarter of observation or the preceding three quarters. In models 1 and 3, this variable indicates all suits in our dataset;

in models 2 and 4 it indicates only "pure excessive fee" suits. The pure excessive fee cases abstract from any effect that allegations other than excessive fee allegations might have had on asset flows. We also include controls for properties of returns, fees, loads, and asset flows to funds in the same investing style, as well as date fixed effects.

The signs on the Suit Year variable are inconsistent across models and are not statistically significant. We therefore cannot discern a clear story about how excessive fee suits might be related to asset flows. The low significance is, however, consistent with our anecdotal impression that excessive fee suits received very little publicity.

7. Conclusions

The *Jones* case and the SEC's decision to begin investigating excessive fees have raised important questions: should the law impose liability only for fraud and misconduct in the setting of fees, as Judge Easterbrook suggested in *Jones*, or should it continue giving shareholders and the SEC the right to sue based simply on the excessiveness of fees even when those fees have been fully and accurately disclosed? The data we present should provide information to help answer these questions.

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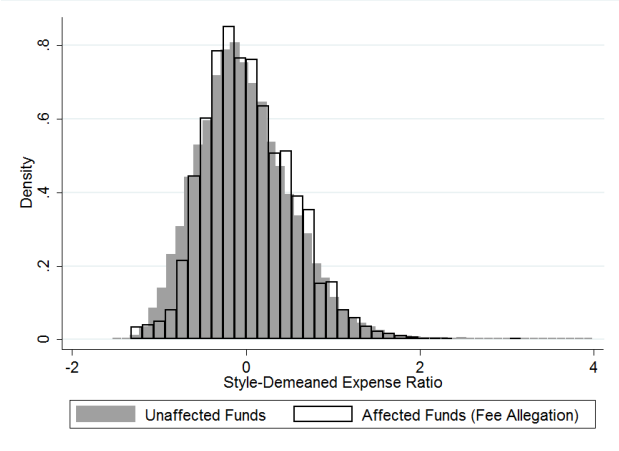
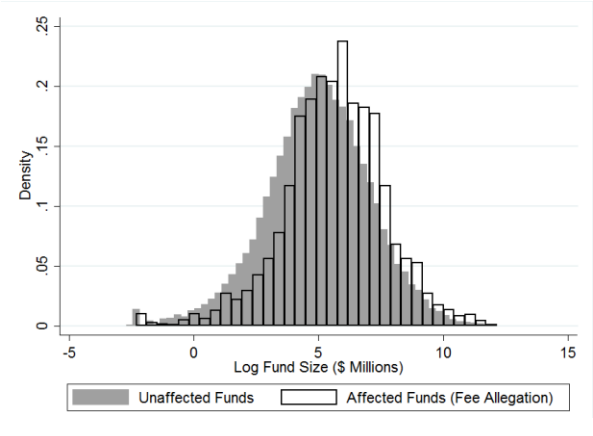
Figure 1. Density Histograms of Affected and Unaffected Funds

1a. Style-Demeaned Expense Ratio



1b. Log Fund Size



1c. Log Family Size by Family

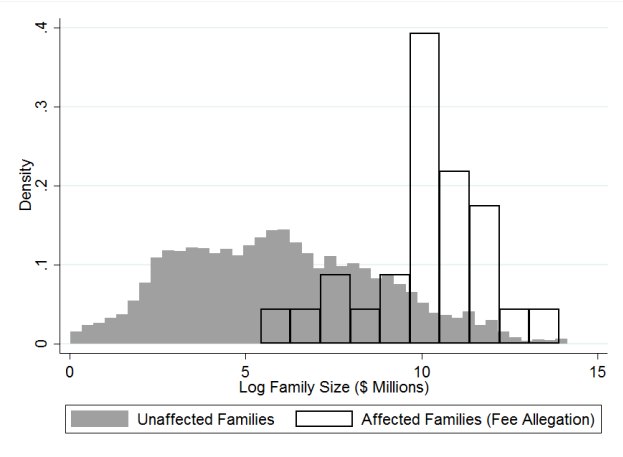


Figure 2. Density Histograms of Affected and Unaffected Funds

Figure 2a. Suit Frequency by Unexplained Expense Ratio Decile

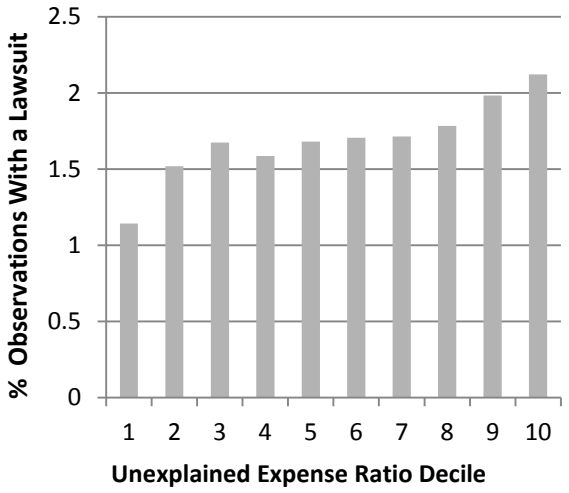


Figure 2b. Suit Frequency by Family Size Decile

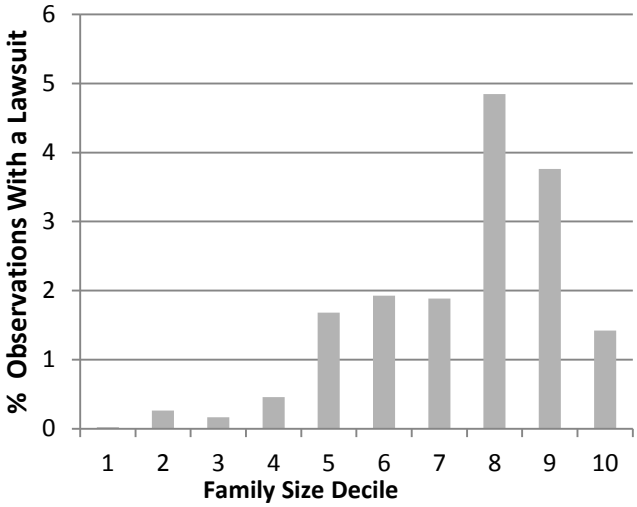
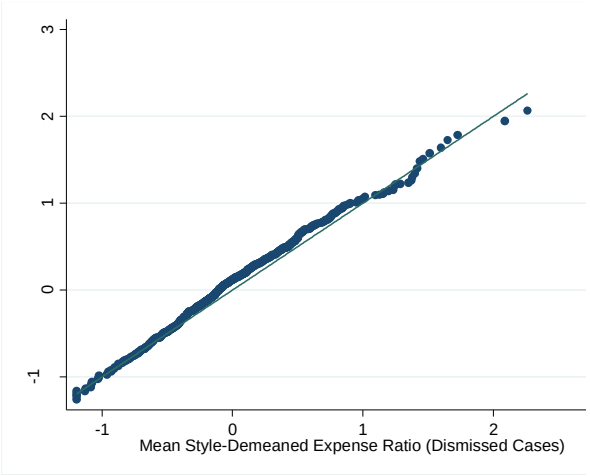


Figure 3. Quantile-Quantile Plots of Style-Demeaned Expense Ratios in Affected Funds by Case Outcome

This figure presents a quantile-quantile plot of the mean Style-Demeaned Expense Ratios in 300 quantiles of funds based on the outcomes of the cases. Each dot represents the pairing of the Style-Demeaned Expense Ratio in a particular quantile of funds with one case outcome against the corresponding quantile in funds with the opposite case outcome. In Figure 3.a, the plots should lie above the 45-degree line if more successful cases had higher fees, and below the line if they had lower fees. In Figure 3.b, the plots should lie above the line if settled cases had higher fees, and below the line if they had lower fees.

3.a Dismissed and Non-Dismissed Cases



3.b Settled and Not Settled Cases

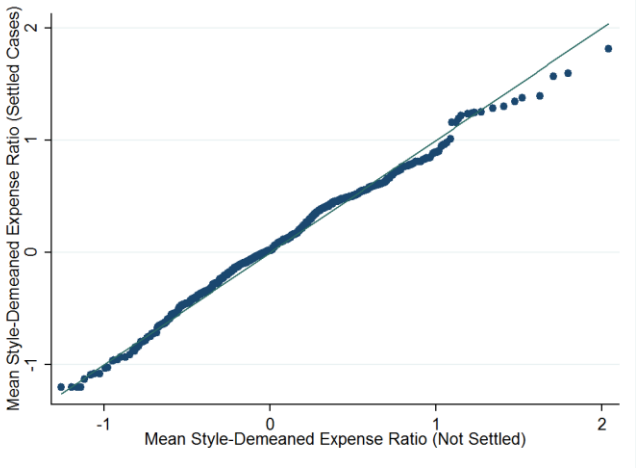


Table 1. Summary Statistics

Lawsuit data were collected from complaints and related documents filed in federal courts between January 1, 2000 and December 31, 2009 in cases that alleged violations of section 36(b) of the Investment Company Act of 1940 against advisers of open-end mutual funds. Cases that alleged market-timing or late-trading were excluded. We observe each fund quarterly.

Basic Information		
	Jan. 1, 2000 to Dec. 31, 2009 (40 Quarterly Observations)	
Total funds	12,157	
Total families	1,015	
Total fund-quarter observations	263,142	
Lawsuits	91	
Cases alleging excessive fees (“Fee Allegation Suits”)	56	
Cases alleging *only* excessive fees (“Pure Excessive Fee Suits”)	25	
Fund-quarter observations with a lawsuit	4,195	
Funds targeted at least once during study period	2,769	23.8%
Fund families targeted at least once during study period	60	5.93%
Family-Level Targeting		
Number of times a lawsuit targeted at least one fund in a family	116	
Number of times a lawsuit targeted an entire family	57	49%
Average percentage of a family’s funds affected by a suit (among suits that targeted only a portion of funds in a family)	40.4%	
Key Variables		
	Mean	Std. Dev
Expense Ratio	.0113	.0060
Fund Size ($ millions)	1,043.3	4,463.0
Family Size ($ millions)	107,969	235,716
Quarterly Return	0.79%	9.5%

Table 2. Simple OLS Regressions of Mutual Fund Characteristics on Lawsuit Dummy

This table presents the results of a series of pooled OLS regressions of variables of interest on the lawsuit indicator variable and date dummies. Each cell in the table represents the results of a distinct regression and reports the coefficient on the lawsuit indicator variable. The columns contain dependent variables, and rows contain codifications of the lawsuit indicator variable. "Fee Allegation Cases" expressly alleged that fees were excessive, and "Pure Excessive Fee Cases" alleged *only* that fees were excessive. All variables express the averages over the four quarters prior to each observation. Panel A treats individual funds as the units of observation. Panel B treats families as the units of observation and calculates variable values as the size-weighted averages for all funds in the families. Panel A clusters standard errors at the family level. Panel B uses robust standard errors.

Panel A. Fund Level Regressions

n = 233,260

		Unadjusted Expense Ratio (%)	Style-Demeaned Expense Ratio (%)	Expense Quantile	Unexplained Expense Ratio (%)	Fund Size ($ millions)	Family Size ($ millions)	Style-Demeaned Returns Over Prior Year
Subset of 36(b) cases flagged by lawsuit indicator variable	All 36(b) Cases	.017 (0.40)	.021 (0.54)	.025 (1.17)	.058** (2.31)	1,036.1** (2.46)	78,409.5*** (4.92)	-.0060 (-1.14)
	Fee Allegation Cases	.055 (1.26)	.052 (1.23)	.040* (1.76)	.068** (2.30)	1,167.1* (1.85)	90,745.5*** (3.04)	-.0030 (-0.55)
	Pure Excessive Fee Cases	.080 (1.56)	.069 (1.40)	.048* (1.73)	.063 (1.55)	1,887.4* (1.81)	49,521.4 (1.37)	0.175 (1.50)

Panel B. Family-Level Regressions

n = 21,542

Subset of 36(b) cases flagged by lawsuit indicator variable	All 36(b) Cases	-.227*** (7.01)	-.203*** (6.85)	-.068*** (-4.10)	.030** (1.39)		87,860*** (5.57)	-0.04*** (-3.41)
	Fee Allegation Cases	-.200*** (5.63)	-.183*** (5.61)	-.059*** (-3.23)	.038** (2.20)		95,634*** (4.81)	-0.04*** (-3.45)
	Pure Excessive Fee Cases	-.140*** (3.14)	-.139*** (3.20)	-.041* (1.72)	.067** (2.24)		103,384*** (3.21)	-0.03* (1.80)

Table 3. Logistic Regressions for Likelihood that a Fund or Family is Affected by a Fee Allegation Suit (Odds Ratios)

This table presents the results of a series of pooled logit regressions using a binary dependent variable that indicates whether a fund in a given quarter was affected by a section 36(b) suit that alleged the fund's fees were excessive. We report all coefficients as odds ratios and scale expense ratio variables as percentages. Panels A and B treat funds as the units of observation and report results from logit regressions. Panel A uses expense ratio variables with continuous values and Panel B converts Expense Quantile and Unexplained Expense Ratio into deciles and uses dummies for each decile. Panel B also presents test statistics on the probability that the coefficient on each decile is the same as the coefficient for the top decile. Panel C treats families as the units of observation and uses a dependent variable that indicates only suits that targeted entire families. Panel C uses the expense and return variables as the size-weighted averages of those variables across all funds in each family, and across the top 25% and top 10% of funds in each family by Unexplained Expense Ratio. All regressions include date dummies. Panels A and B cluster standard errors at the family level. Panel C uses robust standard errors.

Panel A. Fund-Level Regressions with Continuous Expense Variables (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)	(6)
Style-Demeaned Expense Ratio (%)	1.13 (1.13)			2.04*** (4.68)		
Expense Quantile		1.56* (1.63)			4.46*** (4.32)	
Unexplained Expense Ratio (%)			1.32** (2.47)			1.35 (1.42)
Style-Demeaned Returns in Prior Year				.725 (-1.61)	.732 (-1.56)	0.89 (-0.58)
Ln(Fund Size) ($ millions)				1.01 (0.33)	1.01 (0.37)	. 97 (-1.10)
Ln(Family Size) ($ millions)				1.85*** (4.78)	1.85*** (4.73)	1.77*** (4.63)
n	101,255	101,255	96,669	97,995	97,995	97,995
Pseudo R^2	0.2519	0.2529	0.2575	0.3674	0.3690	0. 3555

z-statistics in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01

Panel B. Fund-Level Regressions with Expense Ratio Decile Dummies (Odds Ratios)

	Unexplained Expense Ratio Decile			Expense Deciles Within Style		
	Odds Ratio	(z-stat)	p-value for $\beta_n = \beta_{10}$	Odds Ratio	(z-stat)	p-value for $\beta_n = \beta_{10}$
1 (lowest)	1 (base)	--	0.244	1 (base)	--	0.001***
2	1.06	0.33	0.300	2.64**	2.05	0.001***
3	1.13	0.65	0.227	3.14**	2.30	.003***
4	1.26	0.99	0.426	4.13***	2.97	.121
5	1.27	0.89	0.391	4.41***	2.95	.117
6	1.26	0.78	0.380	5.05***	3.15	.332
7	1.34	0.99	0.602	5.07***	3.10	.312
8	1.40	1.13	0.719	5.63***	3.33	.710
9	1.56	1.37	0.580	6.47***	3.46	.429
10 (highest)	1.47	1.17	1.000	5.94***	3.19	1.000
Style-Demeaned Returns	0.890	-0.56		0.797	-1.13	
Ln(Fund Size) (millions)	0.963	-1.11		1.008	0.27	
Ln(Family Size) (millions)	1.77***	4.63		1.874***	4.67	
n	96,781			97,995		
Pseudo R^2	0.3557			0.3736		

* p < 0.10, ** p < 0.05, *** p < 0.01

Panel C. Incidence of Full-Family Suits: Family-Level Regressions with Continuous Expense Variables (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)
Family Average Style-Demeaned Expense Ratio (%)	2.95*** (5.92)				
Family Average Unexplained Expense Ratio (%)		1.51 (0.80)			
Family Average Expense Quantile			50.81*** (3.03)		
Average Unexplained Expense Ratio in most expensive 25% of family's funds				1.81** (2.55)	
Average Unexplained Expense Ratio in most expensive 10% of family's funds					1.64* (1.90)
Family Average Style-Demeaned Returns in Prior Year	0.37 (1.25)	.146** (2.39)	.464 (0.87)	.164** (2.55)	.151*** (2.73)
Ln(Family Size) ($ millions)	2.47*** (8.27)	2.21*** (9.21)	2.63*** (6.91)	2.17** (9.35)	2.16*** (9.61)
n	3,271	3,249	3,261	3,249	3,240
Pseudo R^2	.4384	.4204	.4772	.4228	.4227

z-statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4. Within-Family Measures for Affected Fund Families

This table compares affected funds to unaffected funds within families when lawsuits targeted only some of the funds in the families. We identified a total of 116 instances in which a suit targeted at least one fund in a particular family. In 57 of these instances, the lawsuits affected every fund in the family. In the remaining 59 instances, the lawsuits affected only a subset of funds within the family. For the 59 partially affected families, this table reports the difference in means between the affected and unaffected funds. The t-statistics are computed as paired tests at the family level with 57 degrees of freedom.

	Affected Funds	Unaffected Funds	Difference (t-statistic)
Average Style-Demeaned Expense Ratio (%)	0.092	-0.119	.210*** (5.38)
Average Expense Quantile	0.560	0.440	.119*** (5.50)
Average Unexplained Expense Ratio (%)	0.158	0.058	.100** (2.75)
Mean Fund Size ($ millions)	7,675	5,278	2,397 (1.53)

Table 5. Relationship Between Fees and Case Outcomes

This table presents evidence on the relationship between fees and case outcomes. The units of observation are lawsuits. Only cases in which a motion to dismiss was filed and decided are included in the population for the comparison of motion to dismiss outcomes and only cases that had reached final resolution were included in the comparison of settlement outcomes. We present the mean difference and the 9% confidence interval for the difference. As a non-parametric robustness check, we further compute the one-sided, two-sample Kolmogorov-Smirnov p-value of the hypothesis that the distribution of the variable of interest is smaller in the set of cases with the smaller reported mean. See Figure 5 for a graphical presentation of the relationship between fees and case outcomes.

Summary Statistics				
	Motion to Dismiss		**Settlement**	
	Dismissed	Not Dismissed	Settled	Not Settled
N	27	22	23	55
Mean Style-Demeaned Expense Ratio	-.053	.010	.085	-.0550
Mean Difference	-.063		.13	
95% Conf. Interval	[-.268, .142]		[-.038, .320]	
Kolmogorov-Smirnov Test	p = 0.63		p =.45	
Mean Expense Quantile	.491	.516	.542	.494
Mean Difference	-.025		0.048	
95% Conf. Interval	[-.135, 0.86]		[-.050, .146]	
Kolmogorov-Smirnov Test	p = .63		p =.47	
Mean Unexplained Expense Ratio	.078	.158	.202	.066
Mean Difference	-.080		0.136*	
95% Conf. Interval	[-.257, .097]		[-.005, .278]	
Kolmogorov-Smirnov Test	p = 0.49		p =.24	
Mean Unexplained Expense Ratio in most expensive 25% of family's funds	.534	.510	.560	.452
Mean Difference	0.24		.107	
95% Conf. Interval	[-.130, .177]		[-.027, .241]	
Kolmogorov-Smirnov Test	p = 0.42		p =.12	
Mean Unexplained Expense Ratio in most expensive 10% of family's funds	.729	.668	.621	.711
Mean Difference	.060		.090	
95% Conf. Interval	[-.129, .249]		[-.073, .253]	
Kolmogorov-Smirnov Test	p = 0.24		P=.26	

Table 6. Change in Targeted Funds' Expense Ratios After Lawsuits

This table presents the mean net-asset-weighted change in relative expense measures in targeted funds after the suits were filed. Because each of the expense ratio variables measures a fund's expenses relative to other funds in the same investing style, this simple before-after test has the effect of comparing the changes in affected funds to changes over the same periods in unaffected funds. In Panel A we report results for cases that affected only a subset of the targeted family's funds and in Panel B we report results for cases that affected all of the targeted family's funds. In Panel A the unit of observation is a fund and in Panel B the unit of observation is a family. In Panel B, we separately present results for all cases and only for cases that made excessive fee allegations. We did not do this in Panel A because almost all cases in Panel A were fee allegation cases. In each panel the population includes only those funds that were affected by suits and for which there were 36 months of data available after the filing of the suits' initial complaints. Changes are measured between the value of each lagged expense variable in the quarter in which a suit was filed and the value five, nine and thirteen quarters after the suit was filed, corresponding to the first, second, and third years after the filing. Fund-level regressions clustered standard errors at the family level; family-level regressions cluster at the lawsuit level.

	One Year Post-Suit	**Two Years Post-Suit**	**Three Years Post-Suit**
Panel A. Fund-Level Fee Changes for Suits that Selective Targeted Funds within Families			
Style-Demeaned Expense Ratio (%)	0.0212***	0.0267***	0.0371***
	(3.08)	(2.87)	(3.02)
Unexplained Expense Ratio (%)	0.0206	0.0267	0.0404*
	(1.51)	(1.43)	(1.73)
Expense Quantile	0.00396	0.0000389	0.00169
	(0.98)	(0.01)	(0.36)
n = 1186			
Panel B. Family-Level Fee Changes for Suits that Target All Funds in a Family			
All Cases (N=52)			
Family Mean Unexplained Expense Ratio	0.00307	0.00389	0.0176
	(0.63)	(0.31)	(1.27)
Mean Unexplained Expense Ratio in most expensive 25% of family's funds	-0.00405	-0.00943	-0.00574
	(-0.43)	(-0.75)	(-0.38)
Mean Unexplained Expense Ratio in most expensive 10% of family's funds	-0.0179	-0.0306*	-0.0338
	(-1.05)	(-1.83)	(-1.52)
n=52			
Excessive Fee Allegation Cases			
Family Mean Unexplained Expense Ratio	0.00803*	0.00201	0.0274**
	(2.23)	(0.34)	(2.78)
Mean Unexplained Expense Ratio in most expensive 25% of family's funds	0.0108	-0.00945	0.00304
	(1.47)	(-0.81)	(0.33)
Mean Unexplained Expense Ratio in most expensive 10% of family's funds	0.0158	-0.0126	0.00169
	(1.55)	(-0.97)	(0.13)
n=25			

Table 7: Asset Flows Following Lawsuits

This table presents the results of an OLS regression that assesses the predictors of asset flows into observed funds. In models 1 and 2, the unit of observation is a fund and in models 3 and 4 it is a family. We observe each fund quarterly. For the family-level regressions, we calculate variables using the size-weighted average values for all funds in each family. The dependent variable is the average of monthly fund flows during the observed quarter divided by the average flow for funds in the same investing style. Monthly fund flows are computed as $Flow_t = \frac{NetAssets_t - NetAssets_{t-1}(1+return_t)}{NetAssets_{t-1}}$. The key independent variable of interest is "Suit Year," which indicates whether a fund or family experienced a lawsuit in the current or prior three quarters. Returns are divided into negative and positive values to capture any asymmetric response of flows to under- or over-performance. All control variables except loads use lagged values from the quarter prior to the quarter of an observation. Models 1 and 2 use fund fixed effects and models 3 and 4 use family fixed effects. Models 1 and 2 cluster standard errors at the family level. Models 3 and 4 use robust standard errors.

	Fund Level		Family Level	
	All Suits	Pure Excessive Fee Suits	All Suits	Pure Excessive Fee Suits
	(1)	(2)	(3)	(4)
Suit Year	0.00162	-0.168	0.0983	0.287
	(1.28)	(-0.56)	(0.25)	(0.79)
Positive Return	0.147***	19.18***	3.437	3.386
	(5.67)	(3.03)	(0.24)	(0.24)
Negative Return	0.0115	-10.76	-34.14	-34.14
	(0.78)	(-1.23)	(-0.75)	(-0.75)
Return Standard Deviation	0.0507***	4.140	-8.723	-8.863
	(4.20)	(1.56)	(-1.00)	(-1.01)
Unadjusted Expense Ratio	0.0272***	2.706*	-0.0376	-0.0526
	(5.23)	(1.91)	(-0.02)	(-0.03)
Fund Size	0.00169	-0.529*		
	(1.41)	(-1.88)		
Family Size			-51.21	-53.08
			(-0.21)	(-0.22)
Front Load	0.279	75.58	-47.30	-50.87
	(0.31)	(0.33)	(-0.20)	(-0.22)
Rear Load	0.631	-269.1	-0.789	-0.789
	(1.27)	(-1.63)	(-1.52)	(-1.52)
R-Squared	0.00832	0.000613	0.00441	0.00442
n	67825	67825	4952	4952