The Suitability Rule, Investor Diversification, and Using Spread to Measure Risk

*By Richard A. Booth**

INTRODUCTION

All broker-dealers doing business in the United States are required by law to join the National Association of Securities Dealers (NASD).[1] NASD rules provide that:

> In recommending to a customer the purchase, sale or exchange of any security, a member shall have reasonable grounds for believing that the recommendation is suitable for such customer upon the basis of the facts, if any, disclosed by such customer as to his other security holdings and as to his financial situation and needs.[2]

This simple sounding admonition, which has come to be known as the "suitability rule," is one of the most ill-defined concepts in all of securities law.[3] Yet, suitability is one of the most common issues arising in disputes between brokers and customers.[4] Indeed, there are several thousand cases

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1. *See* 15 U.S.C. § 78*o*-3v (1994).

2. NASD Conduct Rule 2310, NASD Manual (CCH) ¶ 2310, at 4261 (Apr. 1997). The rule further provides that a member broker must make reasonable efforts to obtain information about a customer's financial and tax status and investment objectives. Thus, not only is a broker required to match up a customer with securities that fit the customer's wants and needs, the broker is also required to ask what those wants and needs are (as one brokerage firm's current advertising campaign reminds).

3. *See generally* Seth C. Anderson & Donald Arthur Winslow, *Defining Suitability*, 81 KY. L.J. 105 (1992); Robert N. Rapp, *Rethinking Risky Investments for that Little Old Lady: A Realistic Role for Modern Portfolio Theory in Assessing Suitability Obligations of Stockbrokers*, 24 OHIO N.U. L. REV. 189 (1998).

4. This Article uses the word "broker" throughout to refer to individual employees of broker-dealer firms. The firm itself, to which the Article generally refers as the brokerage "firm" or "house," is technically the member of the NASD, but employees of members are bound by the rules of the NASD as well. *See* 15 U.S.C. §§ 78s(g), 78u(a). Investment advisers are not required to join the NASD, but they are required to register with the U.S. Securities and Exchange Commission (SEC) albeit under the Investment Advisers Act of 1940. *See id.* § 80b-1. Case law makes it clear that investment advisers are subject to most of the same

filed each year in which aggrieved investors allege financial harm resulting from broker recommendations of unsuitable securities or investment strategies.[5] Although there is considerable doubt as to whether investors may recover for suitability violations as a matter of federal securities law, awards based on such claims have become quite common in arbitration.[6]

Most courts and commentators seem to agree that the most important factor to be considered in connection with suitability is risk.[7] There are few cases, however, in which courts have attempted to quantify risk. In most cases, the courts do little more than attach impressionistic labels such as "growth," "income," or "speculative" to individual securities.[8] To be sure, few judges or lawyers have been trained in even the simplest statistical methods used to measure risk. Moreover, even if one is familiar with the math, it is far from clear how risk should be defined.

Fortunately, it is not always necessary to measure risk in absolute terms. In many situations, it is enough to compare the risk of one security or portfolio with the risk of another. This Article describes two methods of risk comparison that may be used in many broker-customer disputes.

First, it is well settled that through diversification an investor can eliminate most of the risk associated with investing in individual stocks without

duties as brokers in connection with giving investment advice. *See* SEC v. Capital Gains Research Bureau, Inc., 375 U.S. 180, 187-92 (1963). In any event, it seems clear that an investment adviser may take on a relationship of trust and confidence under state law such that he or she becomes a fiduciary.

5. *See* Constantine N. Katsoris, *SICA: The First Twenty Years*, 23 FORDHAM URB. L.J. 483, 491 (1996); Martin L. Budd, *Securities Industry Arbitration—Recent Developments, in* ALI-ABA COURSE OF STUDY MATERIALS: BROKER-DEALER REGULATION 41 (Jan. 9-10, 1997).

6. *See* MARILYN BLUMBERG CANE & PATRICIA A. SHUB, SECURITIES ARBITRATION: LAW AND PROCEDURE 151-52, 155 (1991). The Government Accounting Office (GAO) reported in 1992 that 25% of (completed) securities arbitrations involved suitability claims; the most frequent claim was misrepresentation which arose in 35% of cases, while churning claims arose in only 12% of cases. *See* GAO, PUB. NO. GAO/GGD-92-74, SECURITIES ARBITRATION: HOW INVESTORS FARE 43 (1992). For an early case holding that there is no federal cause of action for violation of the New York Stock Exchange (NYSE) "know your customer rule," which is similar in effect to the suitability rule, see *Colonial Realty Corp. v. Bache & Co.*, 358 F.2d 178, 182 (2d Cir. 1966) (Friendly, J.).

7. *See* BURTON G. MALKIEL, A RANDOM WALK DOWN WALL STREET 227-50 (6th ed. 1996) ("[R]isk is the only variable worth a damn in the market."); JAMES H. LORIE ET AL., THE STOCK MARKET: THEORIES AND EVIDENCE 13-32 (2d ed. 1985). Indeed, it is arguable that risk is the only thing that matters in selecting a stock or other investment. There is a direct trade-off between risk and return. The more risk involved the greater must be the return. Assuming the market is even minimally efficient, the rate of return available for any given investment will thus be a function of its risk. In other words, the only factor an investor needs to consider is the single variable of risk because risk impounds return. *See* HARVEY E. BINES, THE LAW OF INVESTMENT MANAGEMENT 4-2 to 4-73 (1978); MALKIEL, *supra*, at 227-50; *see also* ROBERT W. HAMILTON & RICHARD A. BOOTH, BUSINESS BASICS FOR LAW STUDENTS 39-40, 204-12 (1998); WILLIAM A. KLEIN & JOHN C. COFFEE, JR., BUSINESS ORGANIZATION AND FINANCE: LEGAL AND ECONOMIC PRINCIPLES 227-35 (6th ed. 1996).

8. *See, e.g.*, Rolf v. Blyth, Eastman Dillon & Co., 570 F.2d 38, 43 (2d Cir. 1978), *amended by* 637 F.2d 77 (2d Cir. 1980).

any sacrifice of return.[9] Moreover, an investor need only buy about twenty different stocks to do so.[10] Given that the most fundamental rule of investing is that the more risk an investment carries the more return it must offer, it follows that an investor who is led by a broker to assume more risk than necessary without the prospect of any additional return has been disserved. Such an investment strategy is a classic no-win proposition.[11] Thus, a broker who fails to recommend a diversified portfolio of stocks or other investments should be seen as per se in violation of the suitability rule.[12]

Second, while one can say unequivocally that an investor should diversify, some diversified portfolios are riskier than others. The question is how to determine how much risk there is in a given portfolio. There are numerous statistical and mathematical models for quantifying risk, but they are difficult to apply and not clearly reliable.[13] Moreover, these models are based on narrow, historical information about individual stocks or portfolios.[14] Luckily, however, there is an easy, forward-looking way to compare the risk of one portfolio or security with another. The single most reliable measure of risk is *spread.* Spread is the difference between the bid and ask price of a stock or other security as set by market makers. Because spread is directly related to risk, and because spread is established in a highly competitive market, spread can be used as a surrogate for the direct measure of risk.[15] Moreover, because spread is a forward-looking expression

9. *See* MALKIEL, *supra* note 7, at 235-40. Although the concepts discussed here are applicable to all securities, and indeed all investments, this Article will refer consistently to stocks, because they are familiar and because the vast majority of suitability cases involve investors in stocks.

10. *See id.* at 199; *see also* LORIE ET AL., *supra* note 7, at 23-24.

11. *See* Richard A. Booth, *Stockholders, Stakeholders, and Bagholders (or How Investor Diversification Affects Fiduciary Duty)*, 53 BUS. LAW. 429, 463 (1998). Although the investor will not necessarily lose money, there is no way that the investor can do better than break even in the sense that the investor cannot reasonably expect a return any higher than that carried by a diversified portfolio of the same risk. Numerous cases in the field of corporation law recognize that one of the few situations in which a director or officer may be held liable despite the business judgment rule involve entering into a transaction that carries no prospect of positive return. Entering into a no-win transaction may well be considered a per se breach of fiduciary duty in the sense that it constitutes either utter failure to manage or in fact intent to do financial harm to the corporation. For a discussion of these cases and indeed the effect of stockholder diversification on the merits of stockholder claims, see *id.*

12. *See id.* Indeed, it is worth noting at the outset that the suitability rule affirmatively requires a broker to inquire into a customer's other holdings, thus clearly embracing a portfolio approach to investing.

13. *See generally* BINES, *supra* note 7, at 4-20 to 4-33.

14. *See id.*

15. Spread is an indication of the prevailing consensus among market makers and by definition constitutes a reasonable person's assessment of risk at any given moment. *Cf.* Basic, Inc. v. Levinson, 485 U.S. 224, 261-62 (1988) (White, J., dissenting) (suggesting that damages from false press release may be reduced if market makers were aware of true facts).

of risk in a universe consisting primarily of diversified investors, spread is superior to other methods of measuring risk. Thus, as long as one is satisfied that a portfolio is adequately diversified, one can compare the riskiness of one portfolio with another quite easily by calculating the total spread as a percentage of portfolio value. Because many suitability cases involve allegations that the broker somehow caused the investor to change strategies and assume more risk than was present in an initial portfolio,[16] it is often useful to compare two portfolios even if the absolute quantity of risk is unclear. Moreover, one can easily compare the total spread of a portfolio containing familiar stocks (such as the Dow Jones Industrial Average (DJIA)) with the total spread of a portfolio containing less well-known stocks.

This Article first reviews the state of the law regarding the actionability of suitability claims. Second, it summarizes the theory and practice of diversification. Third, the Article explains the motivations that may lead a broker to recommend excessively risky securities and investment strategies. Fourth and finally, the Article discusses the various methods that may be used to quantify or compare risk, focusing in particular on how spread may be used as a surrogate for the direct measurement of risk.

IS THERE A CAUSE OF ACTION FOR SUITABILITY VIOLATIONS?

There has been considerable debate about whether or not the suitability rule rises to the level of law and whether or not an aggrieved investor may sue for a violation of the rule. As a matter of federal securities law, the suitability rule has been viewed as akin to common law fiduciary duty.[17] The prevailing view is that a mere violation of fiduciary duty does not constitute a cause of action under federal securities law unless the violation rises to the level of fraud.[18] The fact that the suitability rule is akin to state law concepts of fiduciary duty suggests that the rule may be actionable as a matter of state law, and, indeed, a number of state courts have recog-

16. *See, e.g.*, Rolf v. Blyth, Eastman Dillon & Co., 570 F.2d 38, 42 (2d Cir. 1978), *amended by* 637 F.2d 77 (2d Cir. 1980).

17. *See* Colonial Realty Corp. v. Bache & Co., 358 F.2d 178, 181 (2d Cir. 1966); Richard A. Booth, *Self-Regulation in a Democratic Society*, 50 J. AIR L. & COM. 491, 502-04 (1985); *see also* Baird v. Franklin, 141 F.2d 238, 239 (2d Cir. 1944).

18. *See* Clark v. John Lamula Investors, Inc., 583 F.2d 594, 600 (2d Cir. 1978) (holding the broker liable for advising investment in debentures "unsuited for appellee's needs"); Buttrey v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 410 F.2d 135, 142-43 (7th Cir. 1969) (Cummings, J.). *See generally* Norman S. Poser, *Civil Liability for Unsuitable Recommendations*, 19 REV. SEC. & COMMODITIES REG. 67 (1986). Of course, if the violation does rise to the level of fraud, it is arguable that there is no need to sue on the basis of the rule; the anti-fraud rules, such as Rule 10b-5, will be applicable anyway. *See* Rule 10b-5, 17 C.F.R. § 240.10b-5 (1998).

nized such claims.[19] Still, relatively few cases have been litigated in state court, perhaps because state courts may not take cognizance of claims arising under the Securities Exchange Act of 1934[20]

19. *See* Lange v. H. Hentz & Co., 418 F. Supp 1376, 1383 (N.D. Tex. 1976) (applying state law); Twomey v. Mitchum, Jones & Templeton, Inc., 69 Cal. Rptr. 222, 234-35 (Ct. App. 1968); *see also* E.F. Hutton & Co., Exchange Act Release No. 25,887, SEC Docket (CCH) 415-16 (July 6, 1988). The NYSE has stated that its version of the suitability rule (known as the "know your customer rule") applies to all NYSE members including discounters, suggesting that even though a firm does not hold itself out as offering investment advice it nonetheless has some duty to assure that the securities a customer buys are suitable for that customer. *See* Michael Siconolfi, *Discounters Must Watch Out for Customers, Big Board Says*, WALL ST. J., July 19, 1991, at C1. Moreover, there have been several recent cases (so-called "dramshop" cases) in which brokerage firms have been held liable in effect for failing to stop investors who appear to have become addicted to trading. *See* Rebecca Buckman, *Discount and Online Brokers Worry About Investor Cases*, WALL ST. J., Nov. 25, 1998, at C1; Michael Siconolfi, *'Dramshop' Awards Increasingly Slapped on Brokerage Firms*, WALL ST. J., Sept. 4, 1992, at A4.

20. *See* § 15 U.S.C. 78aa (1994). If a plaintiff also has a Rule 10b-5 claim, it is understandable that his or her lawyer would sue in federal court. In addition to numerous procedural advantages under Rule 10b-5, prior to about 1980, the perception was that the federal courts were more inclined to grant relief in connection with fraud claims and that a broader array of wrongs could be addressed. Thus, a plaintiff's lawyer could have faced a malpractice claim for failure to sue in the forum in which success was most likely. In the meantime, however, the federal courts have severely confined the reach of the federal securities laws particularly in connection with private causes of action. *See* Transamerica Mortgage Advisors, Inc. v. Lewis, 444 U.S. 11, 24-25 (1979); Touche Ross & Co. v. Redington, 442 U.S. 560, 569 (1979). Moreover, state courts have become much more hospitable to such claims. Perhaps most important, however, securities fraud claims may now be arbitrated. Because most brokerage houses routinely provide in their new account forms that all disputes must go to arbitration, there is virtually no broker-customer litigation left in the courts, and there is thus very little new law being made. Finally, with the passage of the Private Securities Litigation Reform Act in 1995 (PSLRA), private litigants suing under Rule 10b-5 must now plead scienter with particularity and without the benefit of discovery. *See* 15 U.S.C. § 78j-1 (Supp. III 1997).

One would think that suitability claims would often be heard as pendent claims in connection with another claim that is recognized as fraud under federal law. In fact, suitability claims are often asserted in cases in which the investor also has a churning claim, that is, a claim that the broker has traded an account excessively primarily in order to generate commissions. *See, e.g.*, Miley v. Oppenheimer & Co., 637 F.2d 318, 324-25 (5th Cir. 1981). Such claims are recognized as fraud under federal law because they involve failure to disclose the fact that the reason for trading is to benefit the broker (who is typically paid only by commission) rather than the customer. To the extent that churning may be characterized as a breach of fiduciary duty, such claims should be cognizable in state court. Yet, most churning claims have been litigated in federal court. This is curious given that punitive damages are available in most states, but are not available in federal securities actions. The answer may be force of lawyer habit as much as anything else. During the heyday of Rule 10b-5 litigation (which began to end in the mid-1970s), the federal courts were viewed as much more hospitable to fraud claims. Federal courts offered procedural advantages as well as numerous substantive shortcuts that made many securities claims easy to prove. Thus, one question that has never been well-addressed was whether federal law trumps state law in connection with such garden variety claims as churning. That is, is it even allowable to maintain such claims in state court given that simply by characterizing them as fraud claims there would be exclusive federal jurisdiction? To confuse matters still further, much of the federal law of fraud depends on whether there exists a state law fiduciary relationship. Curiously, few federal

So stood the law when in 1989 the U.S. Supreme Court decided that claims arising under Rule 10b-5 could be decided in arbitration.[21] Although suitability claims may not be cognizable in federal court, most agreements to arbitrate are interpreted to extend to the entire dispute between the parties.[22] Hence, it seems clear that arbitrators may consider any claim that could be considered in state court, including stand-alone claims of breach of fiduciary duty in connection with recommending investments, that is, claims based in essence on a violation of the suitability rule.[23]

courts have recognized a cause of action for violations of the suitability rule even under such circumstances; possibly because once a churning claim is made out, the remedy typically includes damages for loss in value of the account. *See* Davis v. Merrill Lynch, Pierce, Fenner & Smith, 906 F.2d 1206, 1217-19 (8th Cir. 1990) (allowing a fiduciary claim when account had no loss in value); Nesbit v. McNeil, 896 F.2d 380, 385-86 (9th Cir. 1990) (same); *Miley*, 637 F.2d at 326-27 (finding damages for excessive trading commissions and for loss in account value); *Rolf*, 570 F.2d at 48-50 (calculating loss of value in account). *See generally* Richard A. Booth, *Damages in Churning Cases*, 20 SEC. REG. L.J. 3 (1992). In other words, to recognize a suitability claim in such circumstances would add nothing to the plaintiff's recovery. Some federal courts have held that the rule is an indication of the standard of care in the industry and thus may support a claim for what one might call broker negligence under state law. *See, e.g., Lange*, 418 F. Supp at 1383.

21. *See* Rodriguez de Quijas v. Shearson/American Express, Inc., 490 U.S. 477, 480-84 (1989).

22. *See* Lee v. Chica, 983 F.2d 883, 885-86 (8th Cir. 1993); Todd Shipyards Corp. v. Cunard Line, Ltd., 943 F.2d 1056, 1060-61 (9th Cir. 1991); Bonar v. Dean Witter Reynolds, Inc., 835 F.2d 1378, 1382 (11th Cir. 1988). *See generally* IAN R. MACNEIL ET AL., 2 FEDERAL ARBITRATION LAW: AGREEMENTS, AWARDS, AND REMEDIES UNDER THE FEDERAL ARBITRATION ACT §§ 20.1-20.3.7 (1994 & Supp. 1999). *See also* Richard A. Booth, *Punitive Damages and Securities Arbitration in the Wake of* Mastrobuono, 9 INSIGHTS No. 6, at 20 (June 1995) (discussing limits of "entire dispute" argument in connection with punitive damages).

23. Regarding the question of when a broker is a fiduciary, see *McAdam v. Dean Witter Reynolds, Inc.*, 896 F.2d 750, 766-67 (3d Cir. 1990); *Street v. J.C. Bradford & Co.*, 886 F.2d 1472, 1481 (6th Cir. 1989) (stating that a stock broker owes fiduciary duty to the customer); *Herbert v. Saffell*, 877 F.2d 267, 274-76 (4th Cir. 1989) (finding real estate brokers have no fiduciary duty to investigate the land they are selling); *Hotmar v. Lowell H. Listrom & Co.*, 808 F.2d 1384, 1387 (10th Cir. 1987) (giving advice without control of account does not establish fiduciary relationship); *Vucinich v. Paine, Webber, Jackson & Curtis, Inc.*, 803 F.2d 454, 460-61 (9th Cir. 1986) (finding control over short selling without proper advice amounted to a breach of fiduciary duty); *Rolf*, 570 F.2d at 44-45; *Carras v. Burns*, 516 F.2d 251, 256-75 (4th Cir. 1975); *Fey v. Walston & Co.*, 493 F.2d 1036, 1049 (7th Cir. 1974) (holding that a broker-customer relationship does not always create a fiduciary duty); *Lieb v. Merrill Lynch, Pierce, Fenner & Smith*, 461 F. Supp. 951, 953 (E.D. Mich. 1978) (stating that a broker handling a discretionary account is a fiduciary); *Merrill Lynch, Pierce, Fenner & Smith v. Perelle*, 514 A.2d 552, 560-62 (Pa. Super. Ct. 1986) (finding that broker always owes a duty to communicate to his customer plus any other duties outlined in their contract). *See also* Duffy v. Cavalier, 259 Cal. Rptr. 162, 172-73 (Ct. App. 1989), *review granted and cause transferred by* 778 P.2d 549 (Cal. 1989), *transferred to and aff'd*, 264 Cal Rptr. 740 (Ct. App. 1989) (holding that a broker is always a fiduciary). The SEC has developed a similar theory called the "shingle theory" that in essence imposes a professional duty on all brokers. *See* Charles Hughes & Co. v. SEC, 139 F.2d 434, 436-37 (2d Cir. 1943). But as a federal regulatory theory it is unclear that the shingle theory gives

Although an aggrieved investor may sue for a suitability violation where the investor can show that the broker or investment adviser assumed a fiduciary duty, the question remains how to distinguish cases of genuine broker misbehavior from cases in which the investor has lost fair and square. After all, investing is risky business and, therefore, investors should expect to lose sometimes. A broker cannot be expected to insure success. Thus, mere mistakes of judgment should not suffice to allow investor recovery even if the requisite relationship of trust and confidence can be shown.[24]

If simple negligence is not enough, what is enough to show broker misconduct? Although recklessness may suffice,[25] causing an investor to assume unnecessary risk—extra risk without any extra return—should clearly be actionable. Again, a reasonable investor requires more return for taking more risk. Thus, if a broker causes an investor to take unnecessary risk, the broker should be liable under well-established principles of fiduciary duty.[26]

One clear way in which an investor may be exposed to unnecessary risk is by being inadequately diversified. In addition, however, an investor may be disserved when the broker causes the investor to take on additional risk absent a clear decision by the investor to do so, or at the very least, the informed consent of the investor. In other words, the broker should be liable when a broker *increases* the risk level of an investor's portfolio without at least the consent of the investor.

THE IMPORTANCE OF BEING DIVERSIFIED

Rational investors diversify. By investing in a diversified portfolio, an investor can eliminate as much as ninety percent of the risk that goes with

rise to a private cause of action. *See* Board of Trustees v. Poder, 712 F. Supp. 135, 138 & n.3 (N.D. Ill. 1989). *See generally* CANE & SHUB, *supra* note 6, at 132-39.

24. The courts of at least one state have enforced a provision in a brokerage agreement absolving the broker from liability for negligence. *See* Wolf v. Ford, 644 A.2d 522, 528 (Md. 1994). *But see* Ehrlich v. First Nat'l Bank of Princeton, 505 A.2d 220, 233-34 (N.J. Super. Ct. Law Div. 1984).

25. *See Rolf,* 570 F.2d at 44-45. PSLRA imposes strict pleading requirements in connection with claims under federal securities law. *See* 15 U.S.C. § 78u-4(b) (Supp. III 1997). Although PSLRA did not address the standard of conduct required to show fraud, it arguably indicated congressional approval of the recklessness standard. *See id.* § 78u-4(b)(2). But the pleading requirements of PSLRA may have the effect of making it more difficult to make out a case of recklessness. *See id.* § 78u-4(b)(1).

26. Even under the business judgment rule (which is arguably far more difficult to overcome than should be the burden of proof for an individual investor with a face-to-face relationship with his or her broker), it is clear that entering into a no-win transaction (a transaction in which additional risk is assumed without the prospect of additional return) is actionable. *See* Joy v. North, 692 F.2d 880, 886 (2d Cir. 1982); Brane v. Roth, 590 N.E.2d 587, 591-92 (Ind. Ct. App. 1992); Litwin v. Allen, 25 N.Y.S.2d 667, 678, 700 (Sup. Ct. 1940); Selheimer v. Manganese Corp., 224 A.2d 634, 646 (Pa. 1966); MODEL BUS. CORP. ACT §§ 8.30-8.31 (1984); PRINCIPLES OF CORP. GOVERNANCE § 4.01(c) (1994); Booth, *supra* note 11, at 463.

investing in an individual stock without any sacrifice of expected return.[27] Practically speaking, investors *must* diversify. Diversified investors take less risk when they buy a stock. Therefore, they are willing to pay more. Collectively, diversified investors cause the market to bid up the prices of individual stocks and bid down the rate of return.[28] An undiversified investor who buys a stock at a price set in a market dominated by diversified investors effectively overpays for the stock given the extra risk assumed. Thus, it is irrational not to diversify, and a broker who fails to recommend diversification recommends an irrational strategy. The broker has breached his fiduciary duty even under the narrowest notions of that duty, such as the business judgment rule.[29]

Studies indicate that a portfolio of twenty different stocks eliminates virtually all firm-specific risk.[30] In other words, a portfolio of twenty stocks will perform pretty much the same as the market as whole. Witness the fact that there is seldom much difference in the performance of the DJIA, which contains thirty stocks, and the Standard & Poors 500 (S&P 500), which contains 500 stocks.[31]

It is not sufficient that there simply be twenty different stocks in a portfolio. The amount of each matters, too. In order to be well-diversified, a portfolio should contain at least twenty different stocks from twenty unrelated industries, and the amount of each stock held should be roughly equal in dollar amount.[32] To achieve maximum diversification, a portfolio

27. *See* MALKIEL, *supra* note 7, at 235-40. For example, if the investor thinks that a certain company will generate a 20% return half of the time and a 0% return the rest of the time, the investor expects on the average to receive a return of 10%. If the investor instead invests his or her money in 20 different companies with similar prospects, the chances are that 10 companies will generate a return of 20% and 10 companies will generate a 0% return. Thus, the diversified investor will enjoy an average rate of return of 10% with very little variation. The average return is the same either way. But the diversified investor avoids variations in the rate of return. *See id.*

28. One might think of this as Gresham's Law of investing: Diversified investors drive out stock pickers.

29. *See supra* text accompanying note 26.

30. Indeed, under the Investment Company Act of 1940, a mutual fund may not be classified as a diversified fund if it has more than five percent of its assets in any single stock. *See* 15 U.S.C. § 80a-5(b)(1) (1994).

31. *See, e.g.,* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 405-10 (3d ed. 1986). Even the DJIA may be a bit overdiversified. The Major Market Index, which was invented in order to allow investors to trade futures on an index comparable to the DJIA, contains just 20 stocks. Some commentators have argued that an investor must invest in 200 to 300 different stocks to eliminate all firm-specific risk. *See id.* at 408-10. But very little additional risk reduction is achieved after 20 stocks, and the costs associated with owning more than 20 stocks begin to increase dramatically. To be sure, it is very cheap and easy to diversify over 200 stocks by buying a mutual fund. But with a mutual fund, one must assume the risks that go with another's management.

32. Although index funds—funds that seek to match the performance of the market as a whole—weight their investments in individual stocks according to total market capitalization, it is unclear that individual investors should do so. While an index fund would buy (say) 10

should include stocks from several different countries. Studies indicate that an internationally diversified portfolio can eliminate almost ninety percent of firm-specific risk, whereas a purely domestic portfolio can eliminate just over seventy percent of firm-specific risk.[33]

It is easy for a small investor to achieve diversification by investing in a mutual fund. Thus, there is no excuse for an investor to be undiversified. One might almost presume that a broker who implicitly advises a small investor to go it alone by maintaining an individual account is up to no good.[34] Nevertheless, despite the wide variety of investment services and products available to small investors, many continue to manage their own portfolios, with or without the assistance of a broker or investment adviser. Statistics indicate that roughly half of all securities are held and traded by individual investors.[35] Although such a strategy may seem foolish in light of the efficient market and portfolio theory, individual investing may make sense.

First, although it is relatively inexpensive to invest in a mutual fund, it is not free. Some funds charge sales fees (loads) of up to 8.5% or redemption fees of up to 6%.[36] To be sure, such fees may be avoided by investing in a no-load fund, but all funds pay a management fee to their adviser and many funds also pay Rule 12b-1 fees for promotional services.[37] Funds, like other investors, also pay commissions when they trade.[38] In

times as much IBM as Kodak in order to reflect the market capitalization of each, an individual investor holding 20 stocks could end up with virtually all of his or her money in one or two big stocks or could be precluded from buying any small stocks by following such a strategy. Because index funds buy 200 to 300 different stocks, such funds can weight their portfolios without ending up with more than about five percent of funds invested in the very largest stocks. For a discussion of the way various indexes are constructed, see LORIE ET AL., *supra* note 7, at 33-54.

33. While advocates of diversification have argued that if diversification is good one should presumably diversify internationally, some question the wisdom of global diversification because foreign markets tend to follow U.S. markets. *See* Jonathan Clements, *Two Pros Clash on Merit of Foreign Stocks*, WALL ST. J., May 18, 1999, at C1; Barbara Donnelly Granito, *Global Diversification Has Its Downside and May Not Be the Strongest Safety Net*, WALL ST. J., Apr. 14, 1994, at C1.

34. *See* John M. Salmanowitz, *Broker Investment Recommendations and the Efficient Capital Market Hypothesis: A Proposed Cautionary Legend*, 29 STAN. L. REV. 1077 (1977); Note, *The Efficient Capital Market Hypothesis, Economic Theory and the Regulation of the Securities Industry*, 29 STAN. L. REV. 1031 (1977).

35. *See* Greg Ip, *Individuals' Role in Stock Market Grows as the Influence of Institutions Declines*, WALL ST. J., Nov. 16, 1998, at C1.

36. *See* Humberto Cruz, *The Ins and Outs of Mutual Fund Expenses*, SUN-SENTINEL (FORT LAUDERDALE), Jan. 17, 1999, at 7F; Michelle Singletary, *Are Our Funds Milking Us? Who Can Tell?*, WASH. POST, Apr. 4, 1999, at H1.

37. *See* 17 C.F.R. § 270.12b-1 (1999).

38. Although individual investors generally pay commissions that are higher than those paid by mutual funds, funds sometimes pay higher commissions than necessary in exchange for so-called soft-dollar services (such as customized investment advice) that may have dubious value. *See* Michael Schroeder & Charles Gasparino, *SEC Urges More Details on 'Soft Dollars,'* WALL ST. J., Sept. 23, 1998, at C25.

addition, mutual funds may trade shares in the fund at a greater than necessary rate. A turnover rate in excess of 100% per year is not unusual for a growth fund.[39]

Second, an individual investor may be able to minimize income taxes much more effectively than is possible through a mutual fund. Taxes may be minimized by careful timing of sales of gainers and losers, so that during any given tax year capital gains equal capital losses and no tax is owed. Many mutual funds also seek to balance gains and losses so as to minimize taxes for their investors, but it is obviously impossible for a fund to adjust for other aspects of an individual's tax situation.[40] In addition, in a down market, a fund may be forced to sell some of its portfolio because of redemptions, resulting in investors being required to recognize capital gains for tax purposes because of the flow-through taxation scheme applicable to mutual funds.[41]

Third, an individual investor may be able to take on more risk (through margin borrowing or otherwise) than can be had through a mutual fund. Registered mutual funds are limited to borrowing no more than one-third of the value of stocks held in the fund.[42]

Fourth, an individual investor may enjoy more flexibility in trading. Large funds necessarily hold large blocks of shares in individual companies and often cannot trade quickly because the market reacts to big trades.[43]

39. *See* James K. Glassman, *Study Shows Merit of Buy-and-Hold*, WASH. POST, May 31, 1998, at H1. One possible explanation for some of the turnover is that some fund managers engage in "window dressing" or trading just before the end of a reporting period in order to include or exclude specific stocks in the portfolio as reported to shareholders. *See* John R. Dorfman, *'Window Dressing' Ritual Can Aid Small Investors*, WALL ST. J., Mar. 29, 1991, at C1.

40. *See* Helen Huntley, *Buying Individual Stocks Isn't for Everyone*, ST. PETERSBURG TIMES, July 15, 1996, at 4, *available in* LEXIS, News Library, St. Petersburg Times File.

41. *See* Karen Damato & Bridget O'Brian, *Insult and Injury: Losses Won't Erase Tax Due on Funds' Distributed Gains*, WALL ST. J., Oct. 23, 1998, at C1.

42. Investment Company Act § 18(f), 15 U.S.C. § 80a-18(f) (1994). The need for diversification may also justify margin borrowing even though buying on margin is usually considered a relatively risky strategy. For example, an investor who has $40,000 in cash to invest can buy 10 round lots of stocks trading at $40 (roughly the average price of an NYSE stock). By borrowing another $40,000 on margin, that is, by putting down 50% of the purchase price (the minimum allowed under Federal Reserve Board (FRB) rules), such an investor can eliminate significant portfolio risk which may well justify the increase in risk that goes with margin borrowing. *See* Federal Reserve Board Regulation T, 12 C.F.R. §§ 220.1-220.132 (1999). Thus, one of the standard arguments made by unsophisticated investors, that their broker got them into a margin account even though they did not understand the concept, is not necessarily persuasive on the issue of suitability.

43. *See* Greg Ip, *Abreast of the Market: Trading Costs Rising Along with the Market*, WALL ST. J., June 9, 1997, at C1. Indeed, it has been suggested that trading costs are vastly understated by mutual funds because calculations routinely ignore the price effect of trading. *See* Mark Hulbert, *How the Small-Cap Premium Went Into Hiding*, N.Y. TIMES, Dec. 20, 1998, § 3, at 6. Moreover, there have been recent reports that traders sold short stocks that were held by a particularly visible mutual fund that had announced it was almost fully invested and, therefore, was thought likely to liquidate some of its holdings. *See* John R. Dorfman & Sara Calian,

An individual investor, on the other hand, may trade anonymously. Moreover, an individual can maintain control over investment strategy and the ability to invest based on his or her own views or insights into particular segments of the market. Although, given the efficient market theory, there is no reason to think that an individual is any better at picking stocks than market professionals are, there is also no reason to think that an individual is any worse either.[44]

Some Magellan Holdings Are Target of Short Sellers, WALL ST. J., Oct. 7, 1994, at C1. Furthermore, a fund that grows too large may be forced to buy ever riskier securities at the fringes in order to maintain portfolio balance without allowing positions to grow too large in any one security (which might necessitate more active management than is consistent with the fund's style). Yet, if such a fund were to experience significant withdrawals, the fund might well choose to sell the most liquid (and presumably safest) securities first (on the theory that such sales would entail the smallest losses), but the effect on remaining investors would thus be to increase the risk in the fund. *See* Laura Jereski, *Risks in Junk Bonds Rise as Mutual Funds Play a Growing Role*, WALL ST. J., Oct. 1, 1993, at A1. A related worry about mutual funds is that they may be overdiversified. A little diversification goes a long way. Again, studies indicate that 20 different stocks are enough to eliminate virtually all company-specific risk as long as the stocks are spread among industries. It stands to reason that a fund that is invested in 500 different stocks cannot follow all of those stocks as closely as a fund that holds only 50 stocks. Although financial theory suggests that it may make sense to simply buy and hold the market, it is clear that the theory depends on a significant number of investors continuing to do market research. For those funds that choose to engage in stock-picking, it may therefore make sense to limit the number of different stocks held. Holding too many different stocks precludes the possibility of following individual stocks closely and taking advantage of firm-specific opportunities. Such thinking has led a number of large fund managers to begin offering less diversified funds with stocks picked on the basis of growth potential and has led other smaller funds either to close themselves to new investors or, in some extraordinary cases, to return excess investor funds. *See* Karen Damato, *Big Bets: Some Fund Managers Up Ante*, WALL ST. J., Mar. 21, 1997, at C1; *Equity Fund Puts Its Eggs in Fewer Baskets than Most*, ST. LOUIS POST-DISPATCH, Dec. 13, 1996, at 17C; Fred W. Frailey, *Insider Interview: Nick Whitridge*, KIPLINGER'S PERS. FIN. MAG. 60 (1996).

44. Diversification may also justify a certain amount of trading. The essential idea behind diversification is keeping a balanced portfolio. Yet, it is to be expected that some stocks in any portfolio will go up while others go down. Eventually, the portfolio will become heavy on past winners and light on past losers. In short, the need to keep a balanced portfolio creates reasons for trading. Thus, a diversified investor will not necessarily follow a strict buy and hold strategy. Quite to the contrary, a diversified investor should be expected to trade with some frequency.

One final reason for maintaining an individual account is that an investor may have access to nonpublic information from time to time. To be sure, insider trading is illegal, but that does not necessarily mean that it does not go on. Moreover, many uses of nonpublic information are not illegal. Illegal insider trading arises only if information is disclosed for an improper purpose and the tippee knows it. *See* Dirks v. SEC, 463 U.S. 646, 660 (1983); United States v. Chestman, 947 F.2d 551, 565 (2d Cir. 1991). Moreover, it is not illegal to use inside information to decide when *not* to buy or sell. *See* Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 734-36 (1975). And at least one court has held that the sale of stock pursuant to an established program does not constitute illegal insider trading just because information is discovered that indicates the stock is overvalued. *See* SEC v. Adler, 137 F.3d 1325, 1337

BROKER INCENTIVES AND RISKY INVESTMENTS

Why would a market professional ever cause an investor to assume more risk than is necessary or appropriate given the investor's wants and needs? If a broker can avoid liability simply by diversifying at an appropriate level of risk, why would any broker ever fail to do so? There are several possible answers.

First, a brokerage house assumes greater risk in underwriting or making a market in riskier securities. Therefore, discounts and spreads are larger for these securities, and the investment house makes greater profits from selling or trading them. The house may also pay its brokers larger commissions when they sell riskier securities.[45] Accordingly, a broker may sometimes recommend riskier securities because of higher commissions.[46] Such a violation of the suitability rule is really no different from a churning claim. In a churning case, the essence of the offense is that the broker has caused the customer to trade primarily in order to generate commissions for the broker.[47] Churning is recognized as fraud even under Rule 10b-5.[48] Just as with churning, many violations of the suitability rule boil down to a conflict of interest between broker and customer. Thus, even a federal court should recognize such claims as tantamount to fraud, irrespective of whether a cause of action exists for mere violation of the suitability rule.[49]

(11th Cir. 1998) (holding that mere possession of inside information does not suffice for liability; the information must be used).

Despite the fairly good reasons for individual investing and trading, many scholars believe that there is far too much trading than can be justified economically. *See* Paul G. Mahoney, *Is There a Cure for Excessive Trading?*, 81 VA. L. REV. 713, 724-26 (1995); Lynn A. Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 VA. L. REV. 611, 617-18, 669-82 (1995).

45. *See, e.g.,* Clark v. John Lamula Investors, Inc., 583 F.2d 594, 601 (2d Cir. 1978).

46. *See, e.g.,* Schaffer v. Edward D. Jones & Co., 521 N.W.2d 921, 922-28 (S.D. 1994) (awarding punitive damages in connection with the sale of unsuitable debentures and limited partnership interests underwritten by defendant brokerage house). There have been numerous examples in recent years of brokers overselling in-house products. In 1995, Prudential Securities, Inc. was disciplined for excessively promoting securities in which it made markets. *See* Michael Siconolfi, *Prudential Drops Brokers' Pay Incentive for Selling In-House Financial Products*, WALL ST. J., Mar. 30, 1995, at A4. It has been suggested that the high commissions (or markups) carried by derivatives have been mainly to blame for the large amount of such securities sold (primarily to local government entities), and the SEC has responded in part by emphasizing that the suitability rule extends to such recommendations. Apparently, extra incentives for in-house products are often used to lure large-producing brokers from one house to another. A blue ribbon panel set up by the SEC has recommended that extra incentives for in-house products be banned. *See* Jeffrey Taylor, *Report Criticizes Use of Sales Contests, Recruiting Bonuses at Brokerage Firms*, WALL ST. J., Apr. 11, 1995, at A2.

47. *See supra* note 20 and accompanying text.

48. *See supra* note 20 and accompanying text.

49. *Cf.* Charles Hughes & Co. v. SEC, 139 F.2d 434, 436-37 (2d Cir. 1943); Norris & Hirschberg v. SEC, 177 F.2d 228, 233 (D.C. Cir. 1949); Shearson, Hammill & Co., 42 S.E.C. 811, 836-38 (1965). On the other hand, it may make some sense for an active trader to trade

Second, brokers often divert orders for NYSE stocks to captive off-board market makers.[50] Executing a trade in this so-called *third market* may deny the customer the opportunity for price improvement on the NYSE floor. If the trade is sent to the NYSE floor, it is possible that the trade will be matched with another public order on the floor and that the investors will get a price between the quotes.[51] If the trade is executed in the third market, however, the investor only gets the currently quoted price.[52] Thus, the brokerage house and individual brokers may be inclined to steer customers to NYSE stocks with larger spreads because, in addition to the commission on the trade, the market-making operation will enjoy a larger profit.[53]

in riskier stocks. By definition, risky stocks are more volatile. It stands to reason that a stock that jumps around in price more will afford more trading opportunities.

Irrespective of risk, brokerage firms may be more inclined to recommend stocks in which they make a market, for which they are serving as an underwriter, or in which they have a substantial inventory. To be sure, initial public offerings are often underpriced and the opportunity to invest in them is one of the benefits of maintaining an individual account. But if one considers the situation of the broker who may be expected by the house to help sell out its allotment of underwritten shares (or even to meet a quota), it seems clear that the attractive opportunities are likely to be steered toward those loyal customers who also take a few shares of the sticky issues. *See, e.g.*, *Schaffer*, 521 N.W.2d at 928 (awarding punitive damages in connection with sale of unsuitable debentures and limited partnership interests underwritten by defendant brokerage house). *See* Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 613-21 (1984); Jonathan A. Shayne & Larry D. Soderquist, *Inefficiency in the Market for Initial Public Offerings*, 48 VAND. L. REV. 965, 980 (1995).

50. *See* KATHERINE D. ROSS ET AL., PRICE IMPROVEMENT OF SUPPERDOT MARKET ORDERS ON THE NYSE 3 (NYSE Working Paper No. 96-02, 1996).

51. *See infra* note 121.

52. *See* HAMILTON & BOOTH, *supra* note 7, at 388-91. Prior to 1997, price improvement was only available on the stock exchanges. In the meantime, NASDAQ has developed a system by which investors may post bids for execution between the quotes. The system does not apply, however, to third market trades of exchange-listed stocks.

53. To be sure, it is often advantageous if one's own broker makes a market in an over-the-counter (OTC) stock because the investor may then avoid paying a commission or markup on the trade. But often the brokerage house charges a commission or markup anyway on the theory that the market-making operation is a separate line of business. And indeed it is often separately incorporated under a different name. Although federal law requires market makers to disclose their status as such, see *Chasins v. Smith, Barney & Co.*, 438 F.2d 1167, 1170-73 (2d Cir. 1970), in many cases the disclosure takes the form of a generic statement that the broker makes a market in some stocks, or that trades of a particular type may be executed as principal, thus giving the investor very little information about how a particular trade was handled. To add insult to injury, the market maker can always itself resort to the NYSE, with its potential for price improvement, if its position becomes unbalanced. In all fairness, however, some investors may prefer execution in the third market because it is quicker and the price is more or less guaranteed. In contrast, execution on the NYSE may take several minutes, especially if the order is hand-delivered to the trading post. And even if the order is delivered electronically, small orders are typically batched with others for execution which itself adds to the delay and the risk of changes in market conditions.

Third, brokers (and investment advisers) often hold the stocks they recommend.[54] A broker, therefore, may have an incentive to see that others buy the same stock.[55] On the other hand, it may be a good sign that a broker has enough confidence in his or her own advice to follow it.[56]

54. Brokers are limited as a matter of law to making recommendations only for which they have a reasonable basis. *See, e.g.,* Hanly v. SEC, 415 F.2d 589, 596 (2d Cir. 1969); *In re* Merrill Lynch, Pierce, Fenner & Smith, Inc., [1977-1978 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 81,365, at 88,723 (Nov. 9, 1977); 17 C.F.R. § 240.15c2-11 (1999). In practice, the reasonable basis requirement means that the broker must have investigated the security being recommended and must not have reason to believe that information about the stock is unreliable. The broker may not rely on information furnished by management without making some effort to verify that the information is correct. The reasonable basis requirement means that a given brokerage firm will be limited in the stocks that its brokers may recommend by the list of stocks for which the house has a current research report. And because of the potential for liability to investors, most brokerage firms are quite vigilant in enforcing such limitations. This does not mean, of course, that an investor who wants to buy or sell a stock that the brokerage firm does not follow may not do so. It only means that the investment advice that one may expect to obtain at any one firm is limited to the securities that are followed by that firm. Practically speaking, because companies with 500 or more shareholders and $10 million or more in assets must file periodic reports with the SEC (which reports provide a ready source of presumably reliable information), the reasonable basis requirement applies only in connection with very small, non-reporting companies. As to such companies, a broker who decides to make a market in the stock is required to assemble information equivalent to what would be required of a reporting company and to make such information available to investors. *See* 17 C.F.R. § 240.15c2-11. This particular requirement has been criticized by those who make markets simply "on the numbers" (that is, merely by a continuous balancing of long and short positions). Although the rules requiring brokers to assemble information about the stocks they trade can be onerous and ultimately may increase the cost of trading for investors, the securities business itself is a vital link in the processing of information that makes the market efficient.

55. If the price of the stock is just over $5 per share, the broker or investment adviser may also have a strong incentive to promote sales in order to keep the stock marginable. Under FRB rules, a stock with a price of less than $5 per share may not be used as security for a margin loan. *See* 12 C.F.R. § 220.11(a)(2) (1999). Thus, if the stock is held on margin by many investors, a decline to a price below $5 per share may cause many to sell, thus driving the price down even further. It is worth noting that one reason for the $5 rule is that at lower prices a given spread equals a larger percentage of stock price. A 1/8 point move is a change of 2.5% in a $5 stock, whereas the same move is a change of just 1% in a stock with a price of $12.50. Thus, in a sense, a $5 stock is inherently riskier if the standard tick is (say) 1/8 of a point simply because a one tick move is relatively large at lower prices. The shift to decimal pricing, however, may undercut this rationale for the $5 rule. One study suggests that the average price of shares on the NYSE may fall to about $3 if one cent ticks are allowed. *See Study Finds That Reduced Tick Size Will Lead to Lower Average Share Prices,* 29 Sec. Reg. & L. Rep. (BNA) 965 (July 11, 1997) [hereinafter *Study Finds*] (reporting study by James J. Angel concluding that if minimum tick size were reduced to one cent there might be a reduction in average share price from about $40 to about $3).

56. Although brokers are prohibited from front-running—trading ahead of a customer order that is expected to affect the market—it is not illegal to buy ahead of one's own recommendation. But short term trading without disclosure of the practice to customers has been held to be a violation of federal securities law. *See* SEC v. Capital Gains Research Bureau, 375 U.S. 180, 196-97 (1963). *But see* Lowe v. SEC, 472 U.S. 181, 206-11 (1985). Most firms handle this particular disclosure requirement with a generic statement that the

Fourth, riskier stocks also create more opportunities for trading. Riskier stocks are by definition more volatile than safer stocks. Thus, if a broker is inclined to churn an account, it would make sense to choose riskier stocks for the investor's portfolio, because riskier stocks will create more opportunities or excuses for trading.

Even though it is easy to see why a broker might be inclined to recommend riskier securities, why would a broker ever fail to see to it that an investor is adequately diversified? Given that a larger number of smaller trades will tend to generate more in commissions for the broker, self-interest should incline most brokers to diversify their customers' accounts.[57]

One reason that a broker may fail to diversify for an investor may be simple laziness or taking advantage of a momentary inclination on the part of the investor to take a big gamble. A quick commission on a large trade (even of a relatively safe security) may be tempting even if many smaller trades over the course of time might generate more commissions in the aggregate. Besides, if the customer is willing to make a big bet on a single security today, the customer may be willing to do the same thing again a few days or weeks hence. It also may be true that by putting all of an investor's money into one security the broker is able to achieve some sort of quota with regard to a difficult-to-move security.[58] Whatever the reason, the clear-cut nature of the injury to the investor suggests that something is awry. Thus, although the investor may not be able to identify the reason for the broker's misconduct, it should be up to the broker to justify his or her recommendations. In other words, it should be presumed that some conflict of interest motivated the broker, and as is typical with duty of loyalty claims, the burden should be on the broker to disprove it.[59]

firm may or may not invest or trade in recommended securities, which of course tells the customer very little. The NYSE, however, has admonished its member firms to refrain from trading for their own accounts until advice has been disseminated. *See* William Power, *Firms Told: Issue 'Buy,' Then Load Up*, WALL ST. J., Apr. 9, 1991, at C1.

57. Again, failure to diversify means that the investor assumes additional and unnecessary risk without the prospect of any additional return. Whereas a broker's recommendation of a diversified portfolio of risky stocks may give rise to a suitability claim because the level of risk is too high (or conceivably too low) for the investor's wants and needs, the foisting of unnecessary and uncompensated risk does not give rise to the worry either that the broker simply made an error of judgment or that the investor in fact wanted to pursue the strategy.

58. One factor to be considered in such cases is the relative holdings of a given security by customers within a given brokerage firm. In one case in which the author was involved, an investor was induced to invest his entire $72,000 account in a single issue of junk bonds that were being heavily promoted within one office of a national brokerage firm by means of bonus commissions. No other investor in the entire firm had a position in the bonds that exceeded $12,000.

59. *See* RESTATEMENT (SECOND) OF AGENCY §§ 388, 382 cmt. e, & 399 cmt. e (1958). As the author has suggested elsewhere, the most believable explanation for why a fiduciary might enter into a no-win transaction is that there is an unidentified conflict of interest. Thus,

RISK AND THE DIVERSIFIED PORTFOLIO

It is important to recognize that the two types of suitability claims discussed here do not overlap much. A failure to diversify claim may be made out even if the securities involved are relatively safe, and an excessive risk case may be made out even if the account is well diversified. To be sure, there may be cases in which both theories are applicable, but either one is enough to make out a claim, although the measure of damages may vary depending on which theory is applied.[60]

Although failure to diversify should be regarded as a per se violation of the suitability rule, it is not the only possible violation of the rule. Indeed, most suitability cases involve claims that a broker somehow caused a customer to invest in a portfolio of stocks (or other securities) that carried more risk than was appropriate.[61] Suitability is a slippery concept. While it seems clear that a violation of the suitability rule should be actionable in cases in which the broker's recommendations are motivated primarily by the prospect of increased commissions rather than by a good faith effort to achieve the investor's goals,[62] it will often be very difficult to prove such a case. Many cases will be reduced to disputes about what the investor

corporation law has long recognized the no-win transaction as an exception to the business judgment rule. *See* Booth, *supra* note 11, at 463. Of course, it is always possible that even an informed investor may insist on a single stock strategy. *See* Ehrlich v. First Nat'l Bank of Princeton, 505 A.2d 220, 238-40 (N.J. Super. Ct. Law Div. 1984) (finding comparative negligence of the investor who, although not sophisticated, should have known that a single stock portfolio was ill-advised). If so, a broker should not be held accountable. But the strategy is so questionable (if not irrational) that the burden should be on the broker to prove that the investor was informed and educated about the risk. Moreover, it should be relatively easy for a brokerage house to monitor the diversification of its customers through computer records except for those relatively few customers who take delivery of certificates (which customers are unlikely to be targeted for abuse anyway because of the relative difficulty of trading certificated shares). Needless to say, a single stock strategy makes perfect sense if one has inside information. But trading on inside information is illegal, and presumably a broker who executes a customer order that the broker suspects is so motivated would be guilty of aiding and abetting securities fraud. One might even say that the broker should suspect insider trading. Therefore, it would seem to be in the broker's self interest to prevent or strongly discourage such trading.

60. If the focus of the claim is on the higher commissions paid to the broker for riskier stocks, presumably the primary form of relief should be a refund of commissions, although it could be argued that only the excess amount should be repaid. Of course, causing the investor to invest in too risky securities may also cause incidental harm in the form of lost portfolio value. If the focus of the claim is on the fact that the broker sold riskier stocks simply to unload them, the primary form of relief would seem to be damages for lost value, although the commissions paid for the privilege would presumably be an incidental form of relief. *See* Miley v. Oppenheimer & Co., 637 F.2d 318, 326-27 (5th Cir. 1981). *See generally* Booth, *supra* note 20, at 3; Frank H. Easterbrook & Daniel R. Fischel, *Optimal Damages in Securities Offenses*, 52 U. CHI. L. REV. 611, 634 (1985).

61. *See supra* notes 45-49 and accompanying text.

62. *See supra* note 20.

really said.[63] And even if it is clear what the investor's goals were, it may still be unclear whether the broker's strategy was in fact a good faith effort to achieve those goals.[64]

THE EASY CASES

At the very least, the suitability rule requires a broker to make some effort to match investors with securities of the appropriate risk level. Cases in which the broker simply fails to do anything designed to implement instructions are thus relatively easy. It is clear that fiduciary duty requires the fiduciary to exercise his or her judgment even if the ultimate decision is to do nothing.[65]

Assuming that the broker has made a good faith effort to determine the investor's wants and needs, there are some circumstances in which a violation of the suitability rule may still be fairly obvious. For example, if the investor has expressed a desire for income and the broker has put the investor into growth stocks that pay no dividends, it would seem likely that a violation of the suitability rule could be made out.[66] Again, because of doubts about the actionability of the suitability rule, such cases have often been litigated on the theory that the broker failed to follow instructions.[67]

63. *See supra* notes 45-49 and accompanying text.

64. *See id.*

65. *See* Francis v. United Jersey Bank, 432 A.2d 814, 825-26 (N.J. 1981) (stating that defendant director could have stopped embezzlement of funds from reinsurance brokerage by other directors—her sons—if she had done job even minimally); *see also In re* Caremark Int'l, Inc. Derivative Litig., 698 A.2d 959, 967 (Del. Ch. 1996) (stating that board may be held liable for unconsidered failure to act in circumstances in which due attention would arguably have prevented a loss); Smith v. Atlantic Properties, Inc., 422 N.E.2d 798, 803 (Mass. 1981) (holding a director liable for refusal to declare dividends or reinvest available cash). *But see* Bartle v. Home Owners Coop., 127 N.E.2d 832, 833 (N.Y. 1955) (refusing to pierce corporate veil in connection with business that was run so as to break even at best).

66. As an initial matter, the documents an investor signs when he or she opens an account are a key piece of evidence. These documents should establish what the investor's goals are. If the broker makes no attempt to determine what the investor's goals and circumstances are and makes no record of them (or somehow records them differently from what the investor expresses) it would seem that the suitability rule has effectively been ignored from the outset. For a discussion of the relevance and utility of account documents in connection with suitability claims, see Seth C. Anderson & Donald Arthur Winslow, *Defining Suitability*, 81 KY. L.J. 105, 118-20 (1992).

67. *See* CANE & SHUB, *supra* note 6, at 157-60. It is worth noting that failure to manage is one of the rare cases in which shareholders asserting mismanagement claims have succeeded in overcoming the business judgment rule. *See Francis*, 432 A.2d at 828-29. Coincidentally, the other major category of successful cases are those in which management has undertaken a no-win strategy, that is, a strategy that could not possibly result in gain for the corporation. Failure to diversify is such a case. The parallel between the law of fiduciary duty in the context of management of a corporation and in the context of the management of an investment account is no mere coincidence. After all, in both cases the goal is to generate a return for the principal. For an in-depth look at the relevance of diversification

To be sure, there are special cases in which an investor is by law or contract required (or forbidden) to invest in a particular category of securities.[68]

BEYOND THE EASY CASES

In the easy cases, there is little need to quantify risk. But most cases are not so easy. It is clear that an unscrupulous broker can take advantage of his of her customers by recommending securities that are too risky to be suitable. Riskier securities tend to pay higher commissions. On the other hand, a few riskier stocks (or even options) mixed in with safer stocks may be a perfectly appropriate strategy for many investors. It is the risk of the portfolio, not the risk of individual stocks in it, that matters. Moreover, even if one can quantify risk in some generally accepted way, it is not at all clear how much risk is suitable for a given investor.

It is not, however, always necessary to determine how much risk inheres in a portfolio or even how much risk is appropriate for an investor. Often it is enough simply to compare one portfolio with another to get a rough idea of the difference in risk between the two.[69] In many cases, an investor comes to a broker with an existing portfolio that may have been built with another broker, at another firm; or the account may have been inherited. In other cases, the investor may have built a portfolio with a single broker, and the account will have been acceptably managed for a period of time before a broker begins to follow a new and riskier strategy. In such cases, one can compare beginning and ending portfolios for significantly increased risk.

Even if there is no other portfolio or time period to compare, there will always be other investors at the same brokerage house, possibly even with the same broker, to which comparisons may be made.[70] To be sure, looking for changes in investment strategy or deviations from strategies pursued for other customers will not indicate those cases in which a broker consistently abuses all of his or her customers. On the other hand, consistency itself suggests that the broker is operating in good faith.[71] One might even compare the handling of similar accounts at other brokerage houses.[72] In all fairness, investment philosophy can differ from house to house and

in the context of management decision making at the corporation level, see generally Booth, *supra* note 11.

68. Possibly because of doubts about whether violations of the suitability rule are actionable, some such cases have been litigated as reasonable basis cases. *See, e.g.,* Franklin Sav. Bank v. Levy, 551 F.2d 521, 527 (2d Cir. 1977).

69. *See, e.g.,* Rolf v. Blyth, Eastman Dillon & Co., 570 F.2d 38, 49 (2d Cir. 1978), *amended by* 637 F.2d 77 (2d Cir. 1980).

70. *See id.* 48-50.

71. Again, brokers are paid almost exclusively on commission. Thus in many cases, broker abuses can be traced to some change in the broker's circumstances that led the broker to become aggressive with his accounts.

72. *See Rolf,* 570 F.2d at 48-50.

broker to broker. Thus, an aggressive house or broker may attract investors who desire to follow such strategies. To compare typical risk levels at one house to those at another may thus be misleading. Nevertheless, it may sometimes be a factor to consider.[73]

So how does one go about comparing portfolios for riskiness? The first step is to be clear about what risk is. Again, risk is the tendency of a stock (or other security) to fluctuate in terms of value or return or both over some period of time.[74] In other words, risk is a measurement of the volatility of returns. The smoother the performance of a given investment, the less the risk.[75]

EXPERT TESTIMONY

The easiest method of proving or disproving a suitability case is to retain an expert to testify on the subject.[76] Experts from the securities business (assuming one is able to find one to testify) tend to render impressionistic stock by stock opinions based on their own firm's research reports or some other commercial service.[77] Typically, such testimony focuses on each stock in the portfolio, characterizing it as good for income, growth, speculation, or nothing.[78] In all fairness, many such experts also will opine on a portfolio as a whole, but typically only in the same terms.[79] That is, many will render an opinion that the portfolio was relatively safe for an investor seeking income and safety of principal or had a high degree of risk and would be appropriate only for an investor who could afford to lose substantial

73. It bears noting that the same approach may be used to determine how much trading is too much trading. Again, numbers do not speak for themselves. Thus, although it is perfectly easy to determine the turnover of an account or the percentage of the account that has been eaten up by commissions, it is ultimately necessary to compare that number to some other number in order to demonstrate that turnover is or is not excessive.

74. *See* MALKIEL, *supra* note 7, at 229.

75. *See id.* at 229-35. It is important to keep in mind that return comes in several forms: dividends, capital gains, and liquidating payments. Any attempt to measure risk and return must take all three into account.

76. *See generally* Jonathan Kord Lagemann & Robert V. Cornish, Jr., *The Role of Experts in Securities Arbitrations,* 16 AM. J. TRIAL ADVOC. 721 (1993).

77. This approach to assessing risk is reminiscent of the anti-netting rule under trust law, which holds that a trustee must consider investments individually and may not avoid a surcharge for a too risky investment simply because other investments performed well enough to make up the difference. In effect, the anti-netting rule prevents a trustee and the trust from taking full advantage of the benefits of diversification. *See* Jeffrey N. Gordon, *The Puzzling Persistence of the Constrained Prudent Man Rule,* 62 N.Y.U. L. REV. 52, 96-97 (1987). Although the anti-netting rule has been criticized, it may well reflect a rudimentary effort to insure that trustees seek a market rate of return. That is, if a trust simply breaks even, arguably the trust has lost at least the amount of interest that could have been earned in a riskless investment.

78. *See supra* note 8 and accompanying text.

79. *See id.*

sums.[80] The problem with such "proof" is that there is little behind it other than naked opinion. A case that depends on such testimony is likely to turn more on the credibility of the witness than on any solid factual basis. Fortunately, there are several more precise ways of dealing with risk.[81] To be sure, it will often be necessary to retain an expert in order to present such evidence. Thus, a lawyer in a suitability case need not be able to calculate the numbers, but it is important for the lawyers on both sides of a suitability case to be able to interpret and evaluate such testimony.

STANDARD DEVIATION AND COEFFICIENT OF VARIATION

Given that risk is the tendency of a stock to vary in price or return or both, one way of quantifying risk is standard deviation.[82] Standard deviation is the most commonly used measure of the range over which an event is likely to occur.[83] That is, standard deviation is a measure of how much individual outcomes are likely to vary from the mean.[84] In the case of the total return on a given stock, standard deviation gives a sense of how far an individual return is likely to lie from the expected (average) return.[85] The problem with standard deviation, however, is that it is not much good for purposes of comparing investments with differing returns. Because standard deviation is stated in the same terms as the outcome in question—percentage return in the case of an investment—it is only useful as a comparison between alternative investments with the same return.[86] One would naturally expect that an investment with a higher average return would carry more risk and thus would have a higher standard deviation. But how much higher?[87] Standard deviation, standing alone,

80. *See infra* note 123 and accompanying text.

81. *See infra* notes 82-127 and accompanying text.

82. *See* MALKIEL, *supra* note 7, at 229-32.

83. *See id.*

84. *See* LORIE ET AL., *supra* note 7, at 183.

85. *See id.* Specifically, standard deviation is the square root of the sum of variances around the mean. Variance itself is the square of the amount by which a particular event diverges from the mean multiplied by its probability. Thus, standard deviation is a number stated in the same units as the event in question. *See* LORIE ET AL., *supra* note 7, at 183; MALKIEL, *supra* note 7, at 229-35. For example, suppose that the return on a particular stock is 10% with a .50 probability and that there is a .25 probability each that the return will be 5% or 15%. Taking 10% as the mean, one squares the difference between the mean and the alternative outcomes, both of which in this case are 5%; the square (25) is multiplied by .25 (the probability), giving 6.25. The variance is thus 12.50, that is, 6.25 each for the upside and downside possibilities. The square root of 12.50 is 3.54% and is the standard deviation. Suppose now that another investment with a mean expected return of 10% carries with it a .25 chance each that the return will be 0% or 20%. The variance is thus $10 \times 10 \times .25 \times 2$ or 50, and the standard deviation is the square root or 7.07%. Other things equal, it is clear that the first investment is safer than the second, because the actual returns will vary from the average by only half as much as with the second investment.

86. *See* LORIE ET AL., *supra* note 7, at 112, 183.

87. *See generally id.*

cannot convey any sense of the relationship between risk and return and whether additional risk is justified by additional return. Nevertheless, standard deviation may be useful if one is concerned solely about *comparing* risk. For example, it may be useful to compare the standard deviation of the returns on a particular portfolio with that of the DJIA or S&P 500 in order to determine whether an investor has taken more risk than inheres in these well known indices.

It is possible, however, to use standard deviation to compare investments with differing percentage returns. If one divides the standard deviation by the expected return, the resulting number is the coefficient of variation (COV) and represents risk per unit of return.[88] The obvious problem with calculations such as standard deviation and COV, however, is that they are difficult and, therefore, expensive.[89] Moreover, they are ultimately quite unreliable.[90] In order to calculate a standard deviation one must estimate the possible outcomes and the likelihood of each.[91] That is very speculative business, and the answer is only as good as the raw data that goes into the calculations.[92]

BETA COEFFICIENT

A simpler method of measuring risk is to compare the movement of each stock with the movement of the market as a whole. Although all stocks tend to move up or down with the market, some stocks move more and some stocks move less. The tendency of a stock to move with the market is referred to as its beta coefficient, or simply beta.[93] A stock with a beta coefficient of 1.0 tends to move up or down by the same percentage that the market as a whole moves up or down.[94] A stock with a beta coefficient of 2.0 moves twice as much as the market, and a stock with a

88. *See id.* at 159-63, 175. Thus if the first investment promised a return of $10 while the second offered a return of $30, the COV would be 3.54 / 10 or .354 while the COV for the second would be 7.07 / 30 or .236, suggesting that the second investment is, in fact, the better deal. The calculation can just as easily be reversed so as to render an answer in dollars per unit of risk if that is more convenient.

89. *See id.*

90. *See infra* notes 105-27 and accompanying text.

91. *See* LORIE ET AL., *supra* note 7, at 159-63.

92. Despite the difficulties, or perhaps because of them, brokerage houses and investment banks pay their analysts well to perform such calculations.

93. *See* LORIE, ET AL., *supra* note 7, at 35-41, 174; MALKIEL, *supra* note 7, at 241-50; *see also* Daniel R. Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities,* 38 BUS. LAW. 1 (1982). Beta and the Capital Asset Pricing Model (CAPM), in general, have come under increasing criticism in recent years. For all the theoretical sense they make, they do not seem to track the market as well as they should. These shortcomings have led to work on the development of a new model of the market, usually called the arbitrage pricing theory, which seeks to capture the effect of a wide variety of forces on the price movements of individual securities. *See* MALKIEL, *supra* note 7, at 251-76.

94. *See* LORIE ET AL., *supra* note 7, at 174.

beta coefficient of 0.5 moves half as much as the market.[95] A stock's beta coefficient is often used as a surrogate for the riskiness of the stock.[96] Beta coefficients are readily available for most stocks. Indeed, many investment services prominently display beta in their charts.[97]

The fact that beta is readily available does not necessarily make it a reliable measure of risk. Computing beta can be tricky. First, one must decide which market index to use for comparison.[98] Second, the calculation of beta for an individual stock will depend on the length of time over which the stock's movement is monitored and the frequency of samples taken during that time.[99] Third, it is crucial to eliminate price movements when the stock may have been affected by firm-specific disclosures.[100] On the other hand, changes in price caused by such events are themselves part of what defines the beta of a stock. Thus, one of the problems with beta is that it is inherently ambiguous.[101] Moreover, if firm-specific risk can be avoided completely, it could also be argued that there is no apparent reason why any stock should tend to move more or less than the market as a whole. In short, there is something internally inconsistent with the very concept of beta. Nevertheless, beta is a widely accepted measure of risk.[102]

For a diversified investor, however, risk must be considered in terms of the entire portfolio, thus complicating the effort to quantify risk all the more. It is perfectly easy to calculate an average beta for a portfolio from individual numbers, but such a calculation does not take into consideration the covariance of stocks within the portfolio. In other words, a simple calculation of beta for a portfolio based on the betas of individual stocks within it may miss the fact that price changes in stocks within the portfolio may offset each other somewhat.[103] Calculating covariance among stocks

95. *See id.*

96. *See id.* at 138.

97. For example, America Online provides on its Personal Finance Channel a service (from Standard & Poor's COMSTOCK) that allows subscribers to look up quotes for any listed stock and that includes as a standard feature the beta for each stock. *See also* Find a Fund, *10 yr. Top Performers: No-Load Small-Cap Funds with Low Market Risks* (visited June 27, 1999) <http://www.findafund.com/topnlsmcbeta10.htm>.

98. *See* MALKIEL, *supra* note 7, at 266-67.

99. *See id.* at 218-19.

100. *See id.* at 223-24. That is, one should presumably ignore price changes resulting from the disclosure of peculiar facts having to do with the company. Some such disclosures are easy to spot. For example, if a company unexpectedly announces a significant increase or decrease in earnings, such news would likely affect the price in addition to whatever effect the market as a whole might have had that day. Some news, however, does not have such obvious effects. News about changes in general economic conditions may have a different impact on different companies depending on the nature of their businesses.

101. For a comprehensive discussion of the shortcomings of beta, see MALKIEL, *supra* note 7, at 251-76.

102. *See id.* at 251-52.

103. A single investment may be quite risky standing alone, but may nonetheless be a reasonable part of a conservative portfolio. For example, although options are very risky

is, however, a monumental task.[104] Thus, one must look at the historical performance of the portfolio and, thereby, calculate a beta for the portfolio.

USING SPREAD AS A SURROGATE FOR RISK

Fortunately, there is a simple way to measure risk that eliminates speculative calculations altogether even in the context of a portfolio. Spread is the gap between the bid and ask price of a stock.[105] Spread is established by market makers whose business is to buy and sell reasonable quantities of shares in which they make markets.[106] Spread is directly related to the riskiness of the stock.[107] The riskier a stock is, the greater the spread must be to guard against the possibility of being unable to keep a balanced position.[108] For example, a market maker must be able to reduce prices in a falling market so as to sell enough stock to keep the number of sold shares equal to the number of bought shares. Thus, it stands to reason that a stock that tends to move up and down frequently will require a bigger spread in order to compensate the market maker for the risk involved in making a market in that stock.[109] If spreads are too wide, however, traders will trade less often, and the market maker may lose in volume more than is gained from a wider spread.[110] Thus, the market maker is naturally inclined by market forces to keep spreads as narrow as possible but consistent with the tendency of the stock to fluctuate in price. Moreover, market making is a very competitive business. Most NASDAQ stocks

investments standing alone, they may also be used to hedge against changes in individual stocks or to generate additional income for the portfolio.

104. *See* LORIE ET AL., *supra* note 7, at 118-22.

105. *See supra* text accompanying note 15; *infra* text accompanying note 121.

106. *See generally* David Easley et al., *Liquidity, Information, and Infrequently Traded Stocks*, 51 J. FIN. 1405 (1996).

107. *See, e.g., id.* at 1407; David P. Echevarria & Ben Branch, *Market Microstructure Empirical Regularities: Behavior of the Bid-Ask Spread and Closing Prices*, 30 FIN. REV. 541 (1995); James M. Forjan & Michael S. McCorry, *Evidence on the Behavior of Bid-Ask Spreads Surrounding Stock Split Announcements*, 11 J. APPLIED BUS. RES. 97 (1995); Diana R. Franz et al., *Informed Trading Risk and Bid-Ask Spread Changes Around Open Market Stock Repurchases in the NASDAQ Market*, 18 J. FIN. RES. 311 (1995); Marianne Taylor & John Schmeltzer, *Into the Next 100 Years: A High-Flying NASDAQ Strives to Polish Image While Calls for Reform Mount*, CHICAGO TRIBUNE, Sept. 24, 1995, at C1. *See also* SEC DIVISION OF MKT. REGULATION, THE OCTOBER 1987 MARKET BREAK 9-23 (1988) (reporting changes in spread during 1987 crash).

108. *See infra* note 109.

109. For example, suppose that Acme Fireworks (Acme) is a risky company whose stock is likely to rise or fall by 20% on any given day. SureThing Securities (SureThing) makes a market in Acme shares. Currently SureThing is bidding 9 for the shares and asking 10. If Acme stock drops by about 20%, however, SureThing may need to reduce its quote to a bid of 7 and an ask of 8. That means that shares recently purchased at 9 may only be sold at 8. Given these simple facts, it seems clear that a spread of one point is too narrow for Acme.

110. Easley et al., *supra* note 106, at 1405.

have several market makers.[111] As in any other market, profits tend to be reduced as competitors enter the field. Thus, in a competitive market, spread will be reduced to the minimum necessary to allow market makers to make a profit.[112]

Given that spread is directly correlated with risk, one way to measure risk is to calculate the total spread in the portfolio. For example, if an investor owns 100 shares of XYZ Company, and the bid is 20 and the ask is 20 1/4, the spread attributable to that stock is 25 cents per share or a total of $25. The total spread of the portfolio can thus be calculated by repeating the calculation for each stock in the portfolio. Total spread may then be stated either in dollar terms or more accurately in terms of the percentage that spread bears to the value of the stock or portfolio. In the above example, spread equals 25/2000 or 1.25% of the value of the XYZ stock.[113] If a portfolio contained (say) 10 stocks like XYZ all trading at

111. THE NASDAQ STOCK MARKET 1996 FACT BOOK 17 (1996) (stating that in 1995, the average stock had 10.2 market makers).

112. In the real world, of course, setting a spread is complicated. Many factors must be taken into consideration. A stock may tend to move in price for several different reasons and by different percentages depending on the reason. Moreover, the likelihood of each of these movements may vary. Some movements may be expected frequently and others less frequently. The length of time between movements will obviously affect the ability of market maker to make a decent profit or make good on a loss it has suffered. Volume is also an important consideration. A stock that is highly liquid may allow the market maker to net out purchases and sales continuously, while in a less actively traded stock it may be necessary for the broker to carry a long or short position for some period of time. A market maker is also protected by diversification to some extent. If a market maker makes a market in several different stocks, he or she may be able to afford to quote narrower spreads. To be sure, the recent scandal involving numerous NASDAQ market makers who allegedly conspired to keep spreads wider than necessary raises questions about the reliability of spreads in that market. *See Dealer Firms to Pay $910 Million to Settle Investors' Price-Fixing Charges*, 30 Sec. Reg. & L. Rep. (BNA) No. 1, at 5 (Jan. 2, 1998). On the other hand, the fact that a particular market is unreliable in some regard is itself an element of risk. Thus, if spreads are wider than they need to be with NASDAQ stocks, it may well be appropriate to use them anyway in connection with assessing the riskiness of a portfolio that contains such stocks. In the end, it may be that the "spread fixing" conspiracy was more a function of the need for wider spreads in some OTC stocks' market than it was an effort to dictate price levels. Clearly, there are many factors that dictate the spread for a given stock, but one need not know precisely how market makers determine what a stock's spread should be. It is enough to know that the factors that determine spread are the same factors that matter to investors.

113. Note that for a lower priced stock a spread of (say) 1/8 will constitute a larger percentage of the total value of the stock. Thus, as may seem intuitively obvious anyway, low-priced stocks are often riskier than higher priced stocks. No doubt this subtle relationship is in part the source of the traditional preference of many managers that their stock trade in the $25 to $40 per share range. At lower prices, the stock becomes riskier, whereas at higher prices, there may be too little incentive in terms of random price fluctuation for professional traders to participate in the market. *Cf. Study Finds, supra* note 55, at 965 (reporting study by James J. Angel concluding that if minimum tick size were reduced to one cent there might be a reduction in average share price from about $40 to about $3).

$20 per share and all having spreads of 1/4 point, the total spread in the $20,000 portfolio would be $250 or (again) 1.25%.[114]

The primary advantage of using spread as a measure of risk is that it is the most direct and concrete expression of the market's assessment of risk. Spread is how the market puts its money where its mouth is.[115] Whereas beta is backward-looking and based on an inherently fuzzy measurement of stock price changes, spread is forward-looking and represents the best guess of professional traders as to the volatility of a given stock.[116]

114. Clearly, the precise calculation of spread will depend on whether one uses the bid price or the ask price to calculate the value of the portfolio. Thus, it is important to be consistent. Arguably, the bid price is the better choice because it reflects the price at which the investor may exit. The last trade price should not be used because on NASDAQ it will fluctuate between the bid and ask price depending on whether the trade was a purchase or sale for the investor. One should also be careful to use the spread for a given stock on the day the stock is purchased. Spreads can and do fluctuate. It is only fair to assess the wisdom of investing in a given stock as of the time the investment decision is made. On the other hand, there is truth in the old Wall Street adage that every hold is a buy. Thus, one should consider the total spread in a portfolio on each day a trade occurs or the portfolio is reviewed. In some cases, it may be that a broker has ignored an account and that the account has become excessively risky through inadvertence. In such cases, it would presumably be appropriate to calculate the total spread at regular intervals, perhaps monthly or quarterly. Regarding margin accounts, total spread reflects the additional risk from investing on margin because it is calculated on the value of the stocks in the account, not on investor equity.

115. Spread is perhaps the single most important factor to which professional traders look to assess the cost of trading. For example, one of the primary reasons institutional investors use stock index futures as extensively as they do is that the spread on the purchase or sale of a futures contract is a mere fraction of the spread on the underlying stocks themselves. *See* Robert M. Kiss & Todd B. Johnson, *Equitizing the Cash in Your Portfolio,* 5 J. INVESTING 24 (1996).

116. Indeed, there is every reason to think that market makers have factored in all they know about a stock, including the standard deviation of return and beta coefficient. In other words, there is no reason to think that spread does not impound all of the historical measures of risk. Moreover, using spread to measure risk avoids the need to decide which index to use as a benchmark for the market. Perhaps even more important, spread is also effectively adjusted for diversification. Because market makers are diversified in that they make markets for many different stocks, they can afford to quote narrower spreads. Using spread as a surrogate for risk in a diversified portfolio thus avoids one of the fundamental difficulties of other measures of risk, because spread includes an implicit adjustment (downward) for the effects of diversification. A stock by stock calculation of standard deviation or beta coefficient does not take the effects of diversification into account except to the extent that stock prices themselves reflect a premium for diversification (although one can always perform the same calculations for a portfolio).

Yet another reason to focus on spread is that spread is itself one of the costs of trading and thus is directly correlated with the potential for broker advantage-taking. Again, brokers may often be tempted to recommend risky stocks precisely because they have big spreads and the firm (and presumably the broker) stands to make more money on each trade. Inasmuch as a suitability violation is often motivated by the same factors as a churning claim (that is, the desire by the broker to maximize commissions) and inasmuch as one way to prove a churning claim is to compare total commissions to portfolio value, a similar approach may sometimes be useful in a suitability case, if only as a way of double checking other modes of analysis. Although it has become common practice to charge a commission in

Finally, using spread as a measure of risk has the advantage of simplicity. In order to compare the riskiness of one portfolio with another, all that one must do is calculate and compare the aggregate spread. Spreads are readily available for all stocks, including exchange-traded stocks.[117]

Although it is a fairly simple matter to calculate the total spread for a stock or portfolio, one must take care to avoid certain pitfalls. First, there may be several different spreads for a given stock.[118] Quotations may vary from market maker to market maker because of differences of opinion or idiosyncratic imbalances.[119] Moreover, market makers may issue different quotations for public information from those that are available to other members of the industry.[120] These are not serious problems. As long as one is consistent in using comparable spreads, stocks and portfolios may be compared quite readily.[121] One must also be sure that the quotes used

connection with trades in OTC stocks, some such trades involve no commission at all. Rather, the broker is compensated wholly by the spread or by a markup or markdown added to the price of the stock. Indeed, in the case of bonds, that remains standard practice.

One should also consider the possibility of some price effect from trading, at least in connection with thinly traded stocks, although it seems unlikely that a small investor's trades will trigger much reaction in most stocks. Nevertheless, it may be appropriate to consider the depth of a quote (that is, the number of shares a market maker is willing to trade at the quoted price or the number of shares quoted in pending limit orders) if an investor has a substantial position in a given stock. If the quote is particularly shallow, arguably the spread should be adjusted upward.

117. NASDAQ stocks and other OTC stocks are routinely traded on the basis of bid and ask quotations that are readily available through a brokerage house. Although one may not think of exchange-listed stocks as having spreads, they do. On the NYSE, for example, there is a specialist assigned to every listed stock, and it is the specialist's job to buy and sell that stock on the basis of a published bid and ask quotation if there is an imbalance in the market. To be sure, many trades on the floor of the NYSE are executed between brokers in the trading crowd and may occur at a price between the specialist's quotes. Nevertheless, the quotes exist and are also readily available through a brokerage house. Indeed, many small trades in NYSE stocks are routinely executed over the counter in the third market where quotes typically track the quotes of the NYSE specialist. Quotes for all regularly traded stocks (including NASDAQ stocks), as well as a record of each trade, is available from the NYSE in its trade and quote (TAQ) database.

118. *See supra* note 112 and accompanying text.

119. *See id.*

120. *See id.*

121. Many trades on the NYSE happen between the quotes. *See* ROSS ET AL., *supra* note 50. Execution between the quotes in effect eliminates the spread (or some of it) with respect to those trades as to which it occurs. Of course, not all trades occur between the quotes. Nevertheless, the fact that some trades do suggests that quoted spreads are somewhat wider than necessary. It is a fairly simple matter to adjust for this phenomenon. Recent statistics indicate that 18% of all electronic orders executed on the NYSE are executed at a price better than the bid or offer, which translates into a $.02 per share savings for investors. Among shares with spreads of 1/8, the rate of price improvement is 10% ($.01 per share), whereas among shares with spreads greater than 1/8 the rate of price improvement is 39% ($.05 per share). *See id.* at 15 (Table 3). Small orders (100-499 shares) are most often executed between the quotes with 24% to 32% being improved depending on how actively the subject stock is traded. *See id.* at 21 (Table 8). Thus, roughly speaking, spreads on NYSE stocks as traded by

are firm and represent a bona fide two-way market for a substantial number of shares. It is not uncommon for some stocks to trade sporadically on the basis of tentative or one-sided quotes on the NASDAQ bulletin board or in the National Quotation Bureaus Pink Sheets.[122] In such circumstances, it may be tempting to use the best bid and the best offer to estimate the spread, but such estimates are highly unreliable because they may (and probably do) reflect efforts to fill particular orders rather than a true two-way market intermediated by a disinterested market maker.[123]

COMPARING PORTFOLIOS

So how much spread is too much spread? The answer depends on how much risk the investor desires. The more risk there is, the more spread there is.[124] It is not enough simply to calculate the aggregate spread in a portfolio. Such a number cannot speak for itself any more than a naked

small investors should be reduced by about 1/4. An NYSE stock with a spread of 1/8 or .125 should be seen as having a true spread of about .094, whereas a stock with a spread of 1/4 or .250 should be seen as having a true spread of about 0.188. Prior to 1997, NASDAQ had no system that allowed for execution between the quotes except as might be negotiated by large traders, and, accordingly, statistics are unavailable as to how often trades are executed between the quotes. Beginning in 1997, however, investors may place limit orders for NASDAQ stocks and such orders must be displayed system-wide if they improve on market maker quotes. *See NASDAQ Showed Better Prices Under New Trading Rules, Official Says,* 29 Sec. Reg. & L. Rep. (BNA) 89 (Jan. 24, 1997). Thus, price improvement is now available on NASDAQ. This development greatly simplifies the use of spread to measure risk in that one may now safely compare *quoted* spreads between NYSE and NASDAQ stocks. In other words, one can safely ignore price improvement and its implicit reduction of spread as long as one does so consistently.

122. *See generally* HAMILTON & BOOTH, *supra* note 7, at 407-08.

123. Thus, using spread to measure risk assumes that the account in question is invested in actively traded securities. While one might argue that this is a serious limitation on the use of spread to measure risk, it is also arguable that thinly traded securities are unsuitable for most investors. If there is no determinable spread, there is no way to get out for sure. An investor (like the military) must always have an exit strategy and should not ordinarily invest in any instrument for which there is no active market and that cannot be sold on demand. More to the point, if a stock has no determinable spread an investor has no easy way to calculate risk. Thus, unless an investor is capable of assessing risk without resort to market indicia such as spread, the investor is investing blindly. This is not to say that no one should ever invest in illiquid securities. But it is fair to say that only the highest rollers should invest more than a small fraction of their portfolios in such a way. If a stock or other investment cannot be readily traded, an investor is at the mercy of management and can only enjoy a return if management chooses to distribute funds or liquidate. Thus, the investor assumes not only normal business risk, but also the risk that management will choose to follow a distribution policy that favors its own personal wants and needs, which it is perfectly free to do and which may be different from those of many investors. *See generally* Howard M. Friedman, *On Being Rich, Accredited, and Undiversified: The Lacunae in Contemporary Securities Regulation,* 47 OKLA. L. REV. 291 (1994).

124. And indeed an investor who takes the long view and is willing to hold stocks for a substantial period of time will be less concerned about spread as detracting from return.

standard deviation conveys useful information. Once again, however, there is a potential shortcut. There are certain benchmarks against which one can compare most portfolios. For example, in 1995 the average spread on the NYSE (weighted for volume) was 18 cents per share.[125] When reduced by 2 cents per share for price improvement, that translates into a true spread of 16 cents per share. As of 1995, the average price per share of NYSE listed stocks was $38.86 per share.[126] Accordingly, among NYSE-listed stocks, spread equals about 0.4% of stock price. Again, no statistic can speak for itself. But an investor who has more than 0.4% spread in his or her portfolio assumes more risk than the NYSE average. Many individual investors would be reluctant to assume more risk than that. Thus, it would seem fair to require a broker or investment adviser to bear the burden of proof that an investor desired to assume more risk than the NYSE average.[127]

CONCLUSION

Although the suitability rule has been viewed as a vague and aspirational standard, it is fairly clear that risk is the key factor in determining whether an investment or investment strategy is suitable for a given investor. It is also clear that brokers may have a strong incentive to induce their customers to invest in excessively risky securities. Generally speaking, the riskier the investment, the higher the broker's commission. Although risk and an investor's taste for risk are difficult to measure, it is nevertheless often possible to determine that an investor has been led to assume more risk than is appropriate or desired. If the investor is underdiversified, he or she takes excessive risk by definition. Thus, when it can be shown that a broker has failed to diversify an account, a per se violation of the suitability rule should be recognized. As a rule of thumb, no investor should ever hold fewer than ten different stocks at any given time. Assuming that an account is adequately diversified, it may be possible, nonetheless, to show that the account involves excessive risk by comparing the account with some benchmark portfolio such as the S&P 500 or the NYSE Index. Although one might think that such comparisons must involve speculative and unreliable attempts to measure risk, one very straightforward way to measure risk is by comparing aggregate spread in the portfolios. Spread, which is simply

125. *See* 1995 NYSE FACT BOOK 21 (1996).

126. *See id.* at 106.

127. As of 1995, there were 2675 companies and 3126 stocks traded on the NYSE. *Id.* at 106. Thus, using NYSE averages as a benchmark is a relatively liberal standard. Presumably, the S&P 500 (which contains some NASDAQ stocks) is somewhat less risky than the NYSE average, and the Wilshire 5000 is somewhat more risky. In the alternative, one might compare a given portfolio to all widely followed indices in an effort to give a fuller picture of an investor's situation.

the difference between the bid and ask quote for a stock, is directly related to risk and thus may be used as a surrogate for measuring risk. Moreover, spread is established by market makers who compete vigorously to attract traders. Thus, spread has the distinct advantage that it is forward-looking whereas other methods of assessing risk rely on historical data.