

SHAREHOLDER ASSESSMENT
OF BOND FUND RISK RATINGS

Report to NASD Regulation, Inc.

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INVESTMENT COMPANY INSTITUTE

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INTRODUCTION

In December 1996, NASD Regulation, Inc. (NASDR) issued a *Notice to Members* requesting public comment on the use of bond mutual fund risk ratings in supplemental sales literature.¹ The *Notice* states that NASDR currently prohibits the use of such ratings on the basis that they are predictive of fund performance and, therefore, disallowed under NASDR regulations. In recent years, the companies that provide risk ratings for bond funds have urged NASDR to reconsider its position.²

As described in the *Notice*, bond fund risk ratings generally represent opinions regarding a fund's "market risk" or judgments of the probability that bond prices, and consequently, the net asset value of bond funds will react in a given way to changes in market conditions or the general economy, such as a sudden movement in interest rates. The *Notice* states that such opinions or judgments may be based on an evaluation of a variety of information, including the credit quality of a fund's portfolio, fluctuations in the price per share of a fund, the investment philosophy and track record of fund management, and specific risks—such as liquidity risk, concentration risk, options risk, currency risk and leverage risk. The *Notice* also states that risk ratings are not standardized. Rather, each rating service employs its own methods and criteria in assigning such ratings.

On behalf of its members, the Investment Company Institute³ submitted comments in February 1997 to NASDR in response to the *Notice*. In keeping with the Institute's view that NASDR's policy on bond fund risk ratings should turn on whether or not they will help or hurt investors in making sound investment decisions, the Institute also advised NASDR that it would conduct empirical research into how well investors understand such ratings, how investors are likely to use them, and what expectations investors have of such rating systems. This report to NASDR contains the final results of the Institute's research.⁴

¹ *Notice to Members* 96-84, December 1996 (the *Notice*).

² *Id.*

³ The Investment Company Institute is the national association of the American investment company industry. Its membership includes 6,661 open-end investment companies ("mutual funds"), 443 closed-end investment companies and 10 sponsors of unit investment trusts. Its mutual fund members have assets of about \$4.160 trillion, accounting for approximately 95% of total industry assets, and have over 59 million individual shareholders.

⁴ This report contains the results of interviews conducted between July 28 and September 3, 1997 with 604 mutual fund shareholders. Preliminary results, based on interviews with 421 shareholders, were provided to NASDR in mid-September.

EXECUTIVE SUMMARY

Survey Methodology

ICI engaged Response Analysis Corporation, an independent research firm, to survey a randomly selected sample of current mutual fund shareholders on their views of bond fund risk ratings. The survey participants included shareholders who owned equity and bond funds as well as those owning money market funds. Most of the respondents were seasoned fund investors who had long-term financial goals and long-term investment strategies.

The survey questionnaire was designed, *inter alia*, to determine: how risk enters into investment decisionmaking; what perceptions investors may have of bond fund risk ratings when used in sales literature; how they may view such ratings relative to other types of risk information; how they are likely to use risk ratings; and what assumptions they likely will make about a risk rating system.

The survey's purpose and design required that participants have the opportunity to review bond fund sales literature containing a risk rating. In the absence of actual sales literature containing such ratings, the Institute, in consultation with its members, developed a prototype that was aimed at simulating one possible use of the risk rating in sales literature. For this purpose, an existing, well-known U.S. Treasury bond fund was selected, with permission of the fund's management. The fund is one that previously had been assigned a risk rating in the lowest-risk category by a prominent rating service.⁵ The actual name of the rating service was not provided to survey participants.

Some bond fund risk rating systems assign ratings consisting of brief descriptive phrases, while others use alpha-numeric designations. For this reason, two versions of the simulated sales literature were prepared (Figures 1 and 2). One version described the fund as having a "R-1" risk rating and the other as having an "extremely low" risk rating. The rating was prominently displayed in both versions of the sales literature. Both ratings also were accompanied by various disclosures—including an explanation of the rating system—to simulate how a risk rating actually might be conveyed in fund sales literature if authorized by the

⁵ For the purposes of this report, the name of the fund and its sponsor have been omitted from the sample of the sales literature exhibited here.

LIMITED MATURITY TREASURY PORTFOLIO

Objective

The Fund's objective is to provide liquidity with minimum fluctuation of principal value and, consistent with this objective, the highest total return achievable. The Fund will attempt to achieve its objective by investing in an actively managed portfolio of U.S. Treasury notes and other direct obligations of the U.S. Treasury.

fund will typically decline less than that of a long-term bond fund during a period of declining interest rates.

The Limited Maturity Treasury Portfolio invests in Treasury notes with maturities between one and two years. Because the Fund invests in Treasury notes, the Fund provides income that is exempt from state and local taxes.

Investor Profile

You may wish to consider investing in this Fund if you are looking for a lower-risk, higher-yielding alternative to money market funds and feel comfortable with an investment whose share price moves slightly. Aggressive investors willing to take greater risks for superior bond market yields should consider a longer-term bond fund.

Rating

The risk of the Fund has been rated as "R-1" by the XYZ Corporation, a nationally recognized organization that rates the sensitivity of net asset values and returns of bond funds to changes in interest rates and other market conditions.

Risk Rating:

R-1

This fund has earned the XYZ Corporation's R-1 Risk Rating, the lowest risk rating possible for any bond fund.

The rating is based in part on past performance and does not guarantee future results. The XYZ rating is not a recommendation to buy, sell, or hold a security. The Limited Maturity Treasury Portfolio Fund requested the rating and XYZ Corporation received a fee for the rating.

Risk

Fund share prices, yield, and the Fund's total return may change based on changes in interest rates, market conditions, political and economic events, and the quality and maturity of its investments. In general, bond fund prices rise when interest rates fall. Conversely, bond fund prices fall when interest rates rise. This means that a fund's price per share will generally fall in periods of rising interest rates. Because short-term bonds are less sensitive to changes in interest rates than are long-term bonds, the price per share of a short-term bond

The "R-1" risk rating indicates the XYZ Corporation views the Fund's net asset value and total return as having minimal sensitivity to fluctuations in interest rates and market conditions. XYZ Corporation's ratings range from "R-1" for funds with the lowest market risk to "R-8" for funds with the highest risk.

Mutual fund shares 1) are not insured by the FDIC or any other government agency; 2) are not deposits or other obligations of, or guaranteed by, any bank or affiliate; and 3) are subject to investment risks, including possible loss of investment principal.

FIGURE 2

LIMITED MATURITY TREASURY PORTFOLIO

Objective

The Fund's objective is to provide liquidity with minimum fluctuation of principal value and, consistent with this objective, the highest total return achievable. The Fund will attempt to achieve its objective by investing in an actively managed portfolio of U.S. Treasury notes and other direct obligations of the U.S. Treasury.

fund will typically decline less than that of a long-term bond fund during a period of declining interest rates.

The Limited Maturity Treasury Portfolio invests in Treasury notes with maturities between one and two years. Because the Fund invests in Treasury notes, the Fund provides income that is exempt from state and local taxes.

Investor Profile

You may wish to consider investing in this Fund if you are looking for a lower-risk, higher-yielding alternative to money market funds and feel comfortable with an investment whose share price moves slightly. Aggressive investors willing to take greater risks for superior bond market yields should consider a longer-term bond fund.

Rating

The risk of the Fund has been rated as "Extremely Low" by the XYZ Corporation, a nationally recognized organization that rates the sensitivity of net asset values and returns of bond funds to changes in interest rates and other market conditions.

Risk

Fund share prices, yield, and the Fund's total return may change based on changes in interest rates, market conditions, political and economic events, and the quality and maturity of its investments. In general, bond fund prices rise when interest rates fall. Conversely, bond fund prices fall when interest rates rise. This means that a fund's price per share will generally fall in periods of rising interest rates. Because short-term bonds are less sensitive to changes in interest rates than are long-term bonds, the price per share of a short-term bond

Risk Rating: Extremely Low

This fund has earned the XYZ Corporation's Extremely Low Risk Rating, the lowest risk rating possible for any bond fund.

interest rates and other market conditions.

The rating is based in part on past performance and does not guarantee future results. The XYZ rating is not a recommendation to buy, sell, or hold a security. The Limited Maturity Treasury Portfolio Fund requested the rating and XYZ Corporation received

a fee for the rating.

The "Extremely Low" risk rating indicates the XYZ Corporation views the Fund's net asset value and total return as having minimal sensitivity to fluctuations in interest rates and market conditions. XYZ Corporation's ratings range from "Extremely Low" for funds with the lowest market risk to "Extremely High" for funds with the highest risk.

Mutual fund shares are 1) not insured by the FDIC or any other government agency; 2) not deposits or other obligations of, or guaranteed by, any bank or affiliate; and 3) are subject to investment risks, including possible loss of investment principal.

NASDR. Thus, the literature identified the lowest and highest points on the risk rating scale and characterized a fund with the lowest possible rating. For example, the literature stated that such a rating indicates the rating agency “views the fund’s net asset value and total return as having minimal sensitivity to fluctuations in interest rates and market conditions.” The sales literature also described the important risk characteristics of the fund as disclosed in its prospectus. For example, it described the fund’s objective as providing “liquidity with minimum fluctuation of principal value” and it indicated that investors who may wish to consider investing in the fund are ones “looking for a lower-risk, higher-yielding alternative to money market funds and [would] feel comfortable with an investment whose share price moves slightly.”

As a preliminary matter, before participants were asked any questions relating to bond fund risk ratings, they were directed to review both the simulated sales literature containing the fund’s risk rating and the fund’s prospectus. In sum, the procedure was designed to replicate, as closely as possible, the actual experience of investors with bond fund risk ratings, were they to be authorized for use in sales literature by NASDR.

Survey Results

The Role of Risk in Investment Decisions

- ▶ **Mutual fund shareholders assess risk when making investment decisions.** Fifty-five percent of respondents said they typically examine a fund’s investment risk in making investment decisions. Fifty-seven percent consider the types of companies in which the fund invests. Only fund performance was cited more frequently than either of these two items. (See page 20.)
- ▶ **Shareholders who assess fund risk conduct a comprehensive evaluation.** Sixty-seven percent of this group reported examining the annual total return of a fund for each of its most recent 10 years; 63 percent mentioned evaluating its one-, five-, and 10-year total returns; 53 percent cited identifying its level of portfolio diversification; 47 percent pointed to assessing the risks of the types of securities held by the fund. (See page 24.)
- ▶ **Mutual fund shareholders differ in how they define the risk of mutual fund investing.** Of eight different risk concepts presented to survey participants, 49 percent cited the chance of losing some of an original investment; 46 percent mentioned the value of fund investments fluctuating; and 41 percent pointed to not having enough money at the end of their investment horizon to achieve their goals. Almost 80 percent of all respondents included at least two of the possible eight risk concepts in their definition of

risk. The median number of concepts contained in shareholders' definitions was three. (See page 21.)

- ▶ **Mutual fund shareholders tend to assess mutual fund risk over an intermediate- or long-term horizon.** Respondents' median time horizon for assessing fund risk was 3.6 years. Sixty-two percent indicated a time horizon of one-to-five years and 28 percent had a risk time horizon in excess of five years. Only 10 percent reported a time horizon for assessing mutual fund risk of less than one year. (See page 22.)
- ▶ **Experience with bond fund investing varies for shareholders, as does their understanding of bond fund investing.** Fifty-four percent of respondents had never owned a bond fund, while 46 percent were either current or former owners (see page 37). Based on an analysis of a series of statements about bond fund investing, 46 percent of those who had never owned a bond fund were categorized as having a low level of understanding about bond fund investing. Among shareholders who currently or previously owned bond funds, 25 percent fell into the low understanding group; the vast majority of these were shareholders who primarily rely on professional financial advisers. (See page 25.)

Assessment of Bond Fund Risk Ratings

- ▶ **Mutual fund shareholders, including those with a low understanding of bond fund investing, find bond fund risk ratings appealing.** Most respondents viewed risk ratings as simplifying the evaluation of bond fund risk and as being suited to investors like themselves. If a rating was available, most respondents would accord it a great deal of attention and would rely upon it when considering the purchase of a bond fund (see page 27).
- ▶ **After only a brief exposure to the risk rating presented in the simulated sales literature, shareholders were confident about using risk ratings to invest in bond funds.** Almost eighty percent of all participants indicated that they would be either very confident or somewhat confident in using the ratings. The highest concentration of confident investors was found among respondents who had a low understanding of bond fund investing, 85 percent of whom were either very or somewhat confident. (See page 28.)
- ▶ **Mutual fund shareholders misinterpret bond fund risk ratings.** Having reviewed the simulated sales literature featuring a risk rating and accompanying disclosures, respondents were asked what factors about the fund could be determined from its "R-1" or "extremely low" risk rating. Only 40 percent of respondents correctly interpreted the rating to indicate how a fund would perform relative to other funds with ratings if interest rates rose.

Thirty-eight percent incorrectly interpreted the “R-1” or “extremely low” risk rating as an indication of how well the fund had previously performed (Figure 3) (See page 32.)

FIGURE 3

Factors that Can Be Determined from an “Extremely Low” or “R-1” Bond Fund Risk Rating¹

(percent of respondents)

If interest rates go up, how the fund would likely perform relative to other funds with ratings	40
How the fund performed in the past	38
Whether the fund is better for the respondent personally rather than funds with no risk ratings	35
How the return on the fund will change if the stock market goes down	30
Whether the respondent could lose money investing in the fund	28
Whether the fund is likely to produce above-average returns	26
Whether the fund is better for the majority of investors than funds with no risk ratings	21
Whether the fund has a strong management team	12
Number of respondents	584

¹Multiple responses included.

► **Many shareholders would place a higher priority on bond fund risk ratings than on the risk assessment information they currently use.**

Shareholders who evaluate risk typically review four risk-related items before making a purchase decision; 42 percent of these shareholders indicated that risk ratings would become their most or second-most important piece of risk-related information (Figure 4). (See page 29.) Thus, if risk ratings become available, some sources of risk information currently reviewed by shareholders are likely to be used with less frequency. For example, 34 percent of shareholders who currently evaluate risk read a written description, making it the fifth most frequently cited piece of risk information. If risk ratings were authorized by the NASDR, the research indicates that even fewer individuals would turn to narrative disclosure of risk.

- **Many shareholders with moderate-to-high risk preferences or long-term investment objectives will prefer bond funds with low risk ratings.** More than one-third of shareholders indicated that the fund described as having a low risk rating was preferable over unrated bond funds. (See page 32.) Further, 27 percent of those with high risk tolerance preferred funds with low risk ratings, as did 45 percent of those with a moderate tolerance for risk. Also noteworthy, 44 percent of shareholders who assess risk over a period of six or more years (see page 34), and 37 percent who listed achieving long-term growth as their primary investment strategy, preferred bond funds with low risk ratings. (See page 33.)

FIGURE 4

Displacement of Other Risk-related Information by Bond Fund Risk Ratings

(percent of respondents who typically review or ask questions about risk of fund before making a purchase decision)

Percent rating bond fund risk rating as most important item	19
Percent rating bond fund risk rating as second-most important item	23
Percent rating bond fund risk rating as either first or second-most important item	42 ¹
Number of respondents	319

¹Nineteen percent of this group, or 26 respondents, only ranked the bond fund risk rating and one other item of risk information.

FIGURE 5

Shareholders' Opinion on the Likelihood of Bond Fund Risk Ratings Having Certain Attributes

(percent of respondents indicating very or somewhat likely)

A fund's risk rating would be publicly available even if the rating was high risk.	83
Bond funds could be compared with one another based on their risk ratings.	82
A consistent method would be used to assign ratings to all bond funds.	81
Risk ratings would be based solely on statistical data, not opinion.	78
The methods used by rating companies to calculate risk ratings would be subjected to review by independent third parties.	74
A risk rating would be available for every bond fund.	70
The companies that rate funds, including their rating systems, would be regulated by a government agency.	61
Companies that rate funds would be liable if their ratings are inaccurate and investors lose money.	25

Note: Number of respondents varies.

- ▶ **Shareholders' expectations about the rating process vary considerably from how risk ratings actually operate.** Seventy percent expect such ratings to be available for every bond fund. More than 80 percent would expect a fund's risk rating to be publicly available even if the rating conveyed high risk. Almost three-fourths expect that a consistent method would be used to assign ratings for all bond funds. More than 60 percent anticipate that the companies rating funds and their rating systems would be regulated by a government agency, and three-fourths believe that the methods used to calculate risk ratings would be subject to review by independent third parties. One-fourth of all shareholders expect a rating agency to be liable if its rating were inaccurate and investors lost money (Figure 5). (See page 35.)

1. RESEARCH METHODOLOGY

Research Design

This report of the Institute's survey on shareholders' assessment of bond fund risk ratings is based on in-person, in-home interviews conducted by Response Analysis Corporation (RAC)⁶ with 421 randomly-selected households owning mutual funds.⁷ In-person interviews were necessary to ensure that respondents reviewed an exhibit describing a bond fund risk rating; other methodologies could not provide this assurance. Interviews were conducted with individuals who were either the primary or co-decisionmaker for household saving and investment choices. Each interview took about 45 minutes to complete.

RAC used a computerized, multistage procedure or frame based upon 1990 Census data to select the sampling areas that served as interview sites for the Institute survey. The sampling frame includes all areas of the contiguous United States, down to the street level. In the first stage of the sampling procedure, RAC randomly selected 100 primary sampling units, which are either Metropolitan Statistical Areas, as defined by the government, or non-metropolitan counties or groups of such counties.⁸ These primary sampling units comprise 400 secondary sampling units, which are contiguous blocks or block groups containing a total of approximately 500 housing units. For the Institute study, RAC used a stratified random selection process to pick 70 of the 400 secondary sampling units to serve as interviewing locations.

An interviewer was assigned to each secondary sampling unit and given a computer-generated map of the defined area, including a randomly selected starting point. Each interviewer started at this location and continued along a pre-specified travel path⁹ until he or she completed a target number of interviews or exhausted the assigned area. A minimum of three callbacks were made at each household. Of the

⁶ RAC, located in Princeton, New Jersey and founded in 1969, specializes in empirical research for the financial services industry. RAC's in-home interviewing staff comprises more than 600 interviewers who are dispersed throughout the contiguous 48 states and live in or near the sample areas that form the RAC National Probability Sample. Many of RAC's interviewers have served as U.S. Census interviewers. Before recruiting respondents for the Institute survey, RAC trained all interviewers. Interviewers with procedural questions were able to contact RAC staff via a toll-free number.

⁷ Households that only own mutual funds through employer-sponsored retirement plans were excluded from the survey. As of April 1996, 37 percent of all U.S. households owned mutual funds.

⁸ Each of RAC's primary sampling units has a population of at least 80,000.

⁹ RAC field staff followed a specific set of prescribed procedures to draw the pre-specified path on interviewers' maps.

4,701 households successfully contacted, 41 percent refused to participate; 40 percent did not qualify to participate in the research; 6 percent qualified but were unable to complete the survey; and 13 percent qualified and completed the survey.

The sample for this report was weighted using a proportional fitting algorithm and the results presented reflect that weighting. The weights adjusted the sample so that the distributions for variables, such as respondents' gender, age and Census region, would reflect those of U.S. households nationwide. Regional, gender and age weights were developed from Census Bureau data. Weighting also corrected for differential responses across respondent subgroups and other random effects.

In the figures in the text, the percentage of responses falling within a given category is based upon weighted responses. Percentages may not add exactly to 100 percent because of weighting or rounding. Also, for questions where respondents were allowed to provide multiple responses, percentages may add to more than 100 percent. In addition, analysis variables, or subgroups of respondents on which percentage results are based, exclude respondents who were unable or unwilling to answer the questions that define the subgroups. Thus, in some cases, the sum of the number of survey participants across subgroups may not add to the total base answering the question.

Sampling Tolerances

The use of sample surveys is standard practice for deriving estimates about a population.¹⁰ Estimates derived through sample surveys are subject to sampling error, which is the deviation of the sample estimate from the true value in the population. As the sample size increases, the level of potential sampling error generally becomes smaller. In addition, the sample error depends upon the percentage of responses that fall within a given category. For a sample size of 600, the sampling error ranges between 3 and 5 percent at the 95 percent confidence level. In a sample error of 5 percent, this means that the method used in this survey, if repeated a large number of times, would produce sample estimates of the characteristics of the entire population that fall within 5 percent of population values roughly 95 percent of the time. Figure 6 shows the approximate sampling error for estimates of proportions computed for the sample as a whole and for various subsamples.

¹⁰ For a detailed discussion of survey sampling, see W.E. Deming, *Sample Designs in Business Research* (1991).

FIGURE 6

Sampling Error at the 95 Percent Confidence Level for Selected Percentages of Responses, by Sample Size

Sample Size	Percent of Responses				
	10 percent or 90 percent	20 percent or 80 percent	30 percent or 70 percent	40 percent or 60 percent	50 percent
700	3	4	4	5	5
600	3	4	5	5	5
500	3	5	5	6	6
400	4	5	6	6	6
250	5	6	7	8	8
100	7	10	11	12	12

This table shows, for example, that if the sample size is 600, and if 10 percent of the respondents provide the same answer to a question and 90 percent provide the other answer, then, using the same procedures, these responses can be expected to be replicated for the entire population within a range of ± 3 percent 95 percent of the time.

The Simulated Sales Literature Used in the Research

The survey was designed so that shareholders would have an opportunity to review an example of sales literature that contained a bond fund risk rating before answering questions about such ratings. Because NASDR regulations currently prohibit the use of risk ratings in sales literature, the Institute, with assistance from its members, created a prototype for use in the research. The simulated sales literature presented information on a well-established U.S. Treasury fund that previously had been assigned the lowest risk rating possible by one of the services assigning such ratings (see Figures 1 and 2 on pages 4 and 5).¹¹

¹¹ The fund’s management granted the Institute permission to use the fund in the simulated sales literature.

The sales literature provided to participants was designed to simulate that which mutual fund shareholders might actually receive were NASDR to authorize use of bond fund risk ratings. On this basis, the literature prominently displayed the individual risk rating assigned to the fund and contained a variety of accompanying disclosures. These disclosures included the following:

- ▶ a description of the lowest and highest points on the risk rating scale and a description of the type of bond fund that would receive an “extremely low” or a “R-1” risk rating;
- ▶ a narrative description of the fund;
- ▶ a discussion of the fund’s investment objective;
- ▶ a profile of the type of investor for whom the fund would be suited; and
- ▶ an explanation of the risks of investing in the fund, including the types of events that could cause a change in the fund’s price per share, yield and total return, as well as an analysis of the relationship between bond fund prices, interest rate increases or decreases, and maturity.

The simulated sales literature explained, for example, that:

“bond fund prices rise when interest rates fall. Conversely, bond fund prices fall when interest rates rise. This means that a fund’s price per share will generally fall in periods of rising interest rates. Because short-term bonds are less sensitive to changes in interest rates than are long-term bonds, the price per share of a short-term bond fund will typically decline less than that of a long-term bond fund during a period of declining interest rates.”

Finally, two versions of the simulated sales literature were developed, one using a descriptive phrase for the risk rating (“extremely low risk”) and the other using an alpha-numeric designation (“R-1”). The two versions were intended to reflect differences in the scales that might be used by rating services.

Overview of Survey Questionnaire

The purpose of the survey was to gather information from mutual fund owners on how they might use bond fund risk ratings. To this end, survey participants were asked a series of questions designed to provide information on: 1) the likelihood of investors using and relying upon risk ratings; 2) the importance of risk ratings relative to other information used to assess risk; 3) the interpretations and meanings likely to be given to the ratings by investors; and 4) investor expectations regarding the availability and quality of the ratings and the accountability of

the rating process. Survey participants were also asked about the role risk plays in their investment decisions. These questions provided the context in which to analyze shareholders' use of bond fund risk ratings. The survey questionnaire was pre-tested to ensure that questions and exhibits were worded in a manner that shareholders could understand.

Questions on Risk

The survey included background questions on mutual fund risk. Specifically, shareholders were asked about their willingness to take risk with their mutual fund investments, their time horizon for evaluating risk, whether a professional financial adviser assists them in assessing fund risks, and the concepts they include in their definitions of risk.

Questions on Bond Fund Risk Ratings

After completing the section of the questionnaire covering their views on mutual fund risk, survey participants were presented with the simulated sales literature and a copy of the fund's prospectus. They were informed that the sales literature was developed solely for research purposes and that sales literature typically must be accompanied by the fund's prospectus, which investors receive before making any purchase of mutual fund shares. Survey participants also were told that the rating presented in the sales literature was developed by the XYZ Corporation and that, for the purposes of the interview, they should assume that the XYZ Corporation was a nationally recognized organization that specialized in rating bonds and bond mutual funds, similar to Standard & Poor's or Moody's.

Each survey participant was required to read the simulated sales literature, was provided with the fund's prospectus, and was given the opportunity to review it. Having done so, each participant was asked to give his or her initial impressions of the strengths and weaknesses of the bond fund risk rating. This question was open-ended and was intended to assist in the transition from the background questions on risk to the specifics of the bond fund risk rating. For this reason, the responses were not expected to be the prime source of information about an investor's views on ratings, which were obtained more precisely through a series of questions that began with an exercise known as a semantic differential.

In this exercise, each participant was asked to evaluate an attribute of the bond fund risk rating using a five-point scale that is bounded at each end by opposite characterizations of the attribute. For example, for the degree of complexity of the rating, the scale was bounded by the statements: "the risk rating complicates risk evaluation," and "the risk rating simplifies risk evaluation." Other attributes

considered in the semantic differential exercise included the suitability of ratings for investors like the respondent, shareholders' expected reliance on such ratings, and the level of attention investors thought they would give ratings.¹² In a separate question, shareholders were asked to indicate their level of confidence in using bond fund risk ratings.

The semantic differential and the confidence question were designed to elicit information on an investor's likely use of the ratings. To sharpen that information, those investors who had indicated that they reviewed risk before making a purchase decision were then asked to describe the importance they would attach to the risk rating relative to other items of risk information. Each of these survey participants, who comprised 55 percent of all participants, was shown the list of items that they had identified earlier in the survey as being the ones they typically review before making a fund purchase. The bond fund risk rating was then added to the list, and each respondent ranked all the items in the list by order of importance. The results of this exercise indicate the relative importance they ascribed to the risk rating.

The ranking exercise, the semantic differential and confidence question provided evidence of the potential use and significance of bond fund risk ratings in investment decisions. Subsequent questions were designed to determine how investors might interpret the risk rating and how they might apply the risk rating in investment decisionmaking. To gain this information, each participant was presented with a list of eight possible applications of the risk rating and asked to indicate those items that they could determine from a "R-1" or "extremely low" rating. One possible application was: "If interest rates go up, how the fund would likely perform relative to other funds with ratings." This application of the rating, pertinent to interest rate risk, was the only application among the eight that had been cited by rating services as an appropriate use of its rating.¹³

The other seven had not been suggested for this purpose and most are clearly inappropriate—including, for example, interpretation of the rating as an indicator of the fund's past performance, of the possibility of losing money in the fund, or of the fund's return in the event of a down stock market.

¹² This type of scale has proven to be quite reliable in determining the direction and intensity of respondents' attitudes toward a given concept. See Paul E. Green and Donald S. Tull, *Research for Marketing Decisions* (1975) at p. 193.

¹³ See, e.g., Fitch Research Special Report, *Bond Fund Risks Revealed*, October 17, 1994 at p. 4-7, and Standard and Poor's Creditweek, *Criteria: Bond Fund Ratings*, January 16, 1995, at p. 22.

The final line of inquiry examined the assumptions investors would make about the availability and quality of the rating and about the accountability of the rating process. In particular, investors were asked to indicate: whether such ratings would be available for every bond fund, even funds with a high risk rating; whether a consistent method would be used to assign ratings; whether ratings would be based solely on statistical data and subject to independent third-party review; whether rating services would be subject to government regulation; and, finally, whether rating services would be liable if their ratings were inaccurate and investors lost money.

Summary of Characteristics of Respondents

The shareholders who participated in the survey were very similar to those who responded to the Institute's benchmark research on the demographic, financial and fund ownership characteristics of shareholders nationwide. The typical respondent in the study was 42 years old, had a household income of \$60,500 and financial assets of \$84,000. Half of the survey participants had owned funds for seven or more years, and the majority was saving for retirement. Seventy-two percent owned equity funds, 36 percent owned balanced or mixed-income funds, 30 percent owned bond funds, and 33 percent owned money market funds. Just 5 percent of survey participants solely owned money market funds.¹⁴

¹⁴ For more details on the characteristics of the survey's respondents, see Appendix A.

2. MUTUAL FUND SHAREHOLDERS AND RISK

Importance of and Willingness to Assume Risk

Most investors are concerned about the risk involved in investing in mutual funds. Fifty-five percent of shareholders specifically indicated they typically review or ask questions about risk when purchasing mutual funds. Fifty-seven percent examine the types of companies in which the fund invests, which also provides risk information.¹⁵ Only fund performance received more attention than these two risk items (Figure 7).¹⁶

Many shareholders rely on professional financial advisers to help them identify the risk level of fund investments. More than 40 percent of respondents said they evaluate fund risks with the assistance of an adviser, and 20 percent indicated that a financial professional evaluates fund risks on their behalf.

Most shareholders have a tolerance for risk in their mutual fund investments. A total of 81 percent of respondents expressed a willingness to take at least average risk to attain average gain. The remaining 19 percent described themselves as willing to take only below-average or no financial risk (Figure 8).¹⁷

Shareholders' Definition of Risk

To develop an understanding of shareholders' views on mutual fund risk, respondents were asked to identify concepts of risk that would be included in their definition. The concepts were the chance of: 1) losing some of their original investment; 2) the value of a fund not keeping pace with inflation; 3) fluctuations in the value of a fund; 4) not having sufficient wealth at the end of an investment horizon to achieve financial goals; 5) decreases in the income distributed by a fund; 6) the performance of a fund falling short of that of bank certificates of deposit; 7) a fund underperforming an index; and 8) sustaining losses within the first year of an investment.

¹⁵ As noted on page 24, 47 percent of those stating they review risk indicate this involves studying the level of risk of the individual securities in the fund's portfolio.

¹⁶ These results are quite similar to those obtained in two previous ICI surveys. In both, a majority of respondents reported that they had examined risk before making their most recent purchases of a stock or bond fund. See *Shareholder Assessment of Risk Disclosure Methods* at p. 11 and *The Profile Prospectus: An Assessment by Mutual Fund Shareholders* at p. 22.

¹⁷ In a prior Institute study, 84 percent of survey participants indicated a willingness to take at least average risk in the hope of making at least an average return, and 16 percent were unwilling to assume any risk or willing to assume only below-average risk with the understanding they may achieve a below-average return. See *Shareholder Assessment of Risk Disclosure Methods* at p. 12.

FIGURE 7

Information Typically Reviewed by Shareholders Before Making a Mutual Fund Purchase¹

(percent of respondents)

Past performance	73
Types of companies in which the fund invests	57
Risk	55
Company reputation	53
Annual fees	48
Investment goals	46
Past performance compared with similar funds	45
Yield	44
Minimum investment	43
Price per share	37
Tax status	29
Shareholder services	17
Portfolio manager's background	13
Other	3
None	1
Number of respondents	603

¹Multiple responses included.

FIGURE 8

Shareholders' Willingness to Assume Risk

(percent of respondents)

I am willing to take...

Substantial financial risk in the hope of making a substantial monetary gain	8
Above-average financial risk in the hope of making an above-average monetary gain	40
Average financial risk but only expect to make an average monetary gain	33
Below-average financial risk but understand I may make a below-average monetary gain	8
No financial risk	11
Number of respondents	598

The majority of respondents had a multi-dimensional perception of risk. Altogether, 78 percent of respondents chose more than one concept. Only 20 percent included one concept; while 27 percent of respondents selected two concepts; 22 percent selected three; and 29 percent selected four or more. Two percent of respondents did not include any of the eight concepts in their personal definition of mutual fund risk (Figure 9).

FIGURE 9

Concepts Included in Shareholders' Definitions of Mutual Fund Risk

(percent of respondents)

The chance of...¹

Losing some of original investment	49
The value of the mutual fund fluctuating	46
Not having enough money at the end of the investment horizon to achieve goals	41
Mutual fund investments not keeping pace with inflation	40
The income distributed by the fund declining	33
Mutual fund investments not performing as well as an index	32
Losing money within the first year	26
Mutual fund investments not performing as well as a bank CD	22
None	2
Other	1

Respondents indicating...

No concepts	2
One concept	20
Two concepts	27
Three concepts	22
Four concepts	14
Five or more concepts	15
Mean	3
Median	3
Number of respondents	599

¹Multiple responses included

The largest proportion of respondents, 49 percent, defined risk to include the chance of losing some of an original investment. Following fairly closely, 46 percent said mutual fund risk incorporated the notion of an investment fluctuating in value; 41 percent thought it encompassed not having enough money to achieve investment goals at the end of an investment horizon; 40 percent indicated it included the idea of an investment not keeping pace with inflation, and 33 percent viewed risk as including a decline in the income distributed by the fund. Less than one-third of the respondents mentioned any of the other three concepts.¹⁸

Time Horizon

Most shareholders assess the risk of a prospective fund investment along an intermediate-term to long-term time horizon. Over 60 percent of survey participants said they consider mutual fund risk within a one-to-five year investment horizon, while 28 percent indicated a time horizon of more than five years. Only 10 percent reported viewing mutual fund risk within a time horizon of less than one year. The estimated median horizon for all shareholders was 3.6 years (Figure 10).

FIGURE 10

Time Horizon for Assessing Mutual Fund Risk

(percent of respondents)

Less than one year	10
One to five years	62
Six to 10 years	20
More than 10 years	8
Mean years	4.3
Median years	3.6
Number of respondents	582

¹⁸ These results closely track those reported in an earlier Institute study. *Id.* at p. 12-13.

Items of Information on Risk

Those respondents who consider risk information before buying a fund typically conduct a detailed review of risk information. Just 7 percent of these respondents reported examining only one item of information about risk, whereas 21 percent evaluated two items; 39 percent assessed three to four items; and 33 percent considered five or more items (Figure 11). The median number of risk-related items reviewed by these shareholders was four.

The largest proportion of respondents who had reviewed fund risk, 67 percent, said they examine the annual total return of a fund for each of the most recent 10 years. In addition, 63 percent reported evaluating a fund's one-, five-, and 10-year total returns; 53 percent stated they identify the level of a fund's portfolio diversification; 47 percent mentioned assessing the risk of the types of the securities held by a fund; and 34 percent read a written description of a fund's risk. Just three in 10 used a quantitative measure, such as standard deviation, beta or duration.¹⁹ Also mentioned with relatively low frequency were Morningstar rankings, portfolio turnover, total return relative to a benchmark, and the maturity of the securities in a fund's portfolio.

Shareholders' Understanding of the Risks of Bond Fund Investing

To gauge shareholders' understanding of bond fund investing, particularly the risks associated with this type of investment, respondents were asked to indicate their level of agreement with a series of statements about bond fund investing. These statements covered general aspects of such investing, including the performance of bond funds compared with stock funds over time, and various types of bond fund risk, such as interest rate risk, credit risk and maturity risk.²⁰

Using shareholders' responses to the statements about bond fund investing and the number of statements they attempted to answer, respondents were grouped according to their level of understanding. First, shareholders' responses to each of the seven questions was tallied. In addition, respondents who attempted to answer

¹⁹ In a previous Institute study, only a small proportion of respondents indicated that they had used quantitative measures to evaluate mutual fund risk. Specifically, 14 percent indicated that they had used standard deviation, 14 percent duration and 10 percent beta. *Id.* at p. 16.

²⁰ The statements were: 1) bond mutual funds do not mature; 2) shareholders can lose some of their original investment when investing in bond funds; 3) short-term bond funds are generally more risky than long-term bond funds; 4) changes in interest rates generally do not affect a bond fund's price per share; 5) bond funds that invest in high-quality bonds are generally less risky than bond funds that invest in low-quality bonds; 6) over the past ten years, bond funds have generally performed better than stock funds; and 7) individuals under the age of 30 should have most of their savings invested in bond funds.

FIGURE 11

Types of Risk-related Information Reviewed by Shareholders

(percent of respondents who typically review or ask questions about risk of fund before making a purchase decision)

	All Shareholders	Primary Mutual Fund Purchase Channel	
		Sales Force	Direct Market
Types of risk-related information reviewed...¹			
Annual total return of the fund for each of the most recent 10 years	67	67	67
One-, five-, and 10-year total return	63	57	71*
Level of diversification of the fund's portfolio	53	56	47
Risk of the types of the securities held by the fund	47	44	45
Written description	34	30	42*
Quantitative measures (net)	30	26	31
Duration	19	17	15
Beta	10	6	16*
Standard deviation	9	8	11
Morningstar ranking	24	21	30
Total return relative to a benchmark	22	16	30*
Portfolio turnover	21	17	29*
Maturity of the securities in the fund's portfolio	19	20	14
Respondents indicating....			
One type of risk-related information	7	11	3*
Two types of risk-related information	21	19	23
Three types of risk-related information	24	26	21
Four types of risk-related information	15	16	14
Five types of risk-related information	13	12	14
Six or more types of risk-related information	20	16	25*
Mean	4.0	4.0	4.0
Median	4.0	3.0	4.0
Number of respondents	335	193	117

¹Multiple responses included.

*Responses of shareholders who primarily purchase funds from the sales force channel are statistically different from those who primarily purchase from the direct market channel at the 95 percent confidence level.

all seven statements had five points added to their tally and those who answered five or six statements had three points added. Respondents who only tried to answer four or fewer statements did not have any points added to their tally. This process, which is frequently used in index construction,²¹ rewards those attempting more answers. Possible scores, which were the sum of survey participants' responses to the seven questions and any additional points they received, ranged from a low of zero to a high of 40. Shareholders with a score between zero and 22 were categorized as having a low understanding, those with a score between 23 and 30 as having a moderate understanding, and those with a score of 31 to 40 as having a high understanding of bond fund investing.

Forty-six percent of shareholders who had never owned a bond fund fell into the low level of understanding category; 38 percent into the moderate category; and 16 percent into the high category (Figure 12). Most current or previous bond fund owners were classified as having either a moderate or high level of understanding of bond fund investing. Nevertheless, 25 percent of this group was categorized as having a low level of understanding of bond fund investing. These shareholders were, however, primarily clients of professional financial advisers (Figure 22).²²

FIGURE 12

Categorization of Shareholders by Level of Understanding of Bond Fund Investing
(percent of respondents who agree)

	All Shareholders	Previous Experience with Bond Fund Investing	
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds
Low understanding	36	46	25*
Moderate understanding	41	38	44
High understanding	22	16	30*
Number of respondents	604	297	284

**Responses of shareholders who currently own or have previously owned bond funds are statistically different from those who have never owned bond funds at the 95 percent confidence level.*

²¹ See Earl R. Babbie, *Survey Research Methods* (1990) at p. 151.

²² For further information about the attributes of shareholders with low, moderate or high levels of understanding of bond fund investing, see Appendix A: Characteristics of Respondents.

3. ASSESSMENT OF BOND FUND RISK RATINGS

Likelihood of Investor Use of Risk Ratings

Survey participants generally responded favorably to the bond fund risk rating contained in the sales literature, strongly pointing toward use in evaluating bond fund risk. The positive assessment was evident in participants' responses to a series of statements in the semantic differential exercise.²³ Seventy percent of respondents viewed the risk rating as simplifying the task of assessing the risk of the fund described in the sales literature (Figure 13). Furthermore, 70 percent of respondents viewed the risk rating as being an appropriate tool for investors like themselves and 64 percent said they would give the rating a great deal of attention in assessing risk. Finally, 54 percent of respondents would appear likely to rely upon the rating.

FIGURE 13

Shareholders' Opinion of Bond Fund Risk Ratings

(percent of respondents indicating four or five on a one to five point scale)

	All Shareholders	Previous Experience with Bond Fund Investing		Understanding of Bond Fund Investing		
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds	Low	Moderate	High
Would simplify evaluation of bond fund risk	70	72	66	69	69	71
Would be appropriate for investors like the respondent	70	70	69	72	67	70
Would be given a great deal of attention by respondent	64	67	61	68	61	64
Would be relied upon by the respondent	54	56	51	55	57	47

Note: Number of respondents varies.

²³ See page 15 for a discussion of the semantic differential exercise as a research technique.

Should risk ratings become available, an alpha-numeric rating scale would likely produce greater reliance on the risk ratings than a descriptive word scale. Fifty-eight percent of survey participants who received the simulated sales literature with the “R-1” risk rating said they would rely on such a rating, compared with 50 percent of those who received the literature with the “extremely low” rating.

The overall favorable assessment given to risk ratings also was evident in various groups of survey participants. The responses differed little between those participants who had never owned a bond fund and those who currently or previously owned a bond fund. All shareholders indicated they favored the risk ratings regardless of their level of understanding of bond fund investing.

The favorable assessment of the risk rating by all survey respondents was evident in their responses to the question concerning the degree of confidence they would have in using the risk ratings. Seventy-nine percent of all participants indicated that they would be either very confident or somewhat confident in using the ratings (Figure 14). The highest concentration of confident investors was

FIGURE 14

Level of Confidence Using Bond Fund Risk Ratings

(percent of respondents)

	All Shareholders	Previous Experience with Bond Fund Investing		Understanding of Bond Fund Investing		
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds	Low	Moderate	High
Very confident	12	10	17*	11	12	17
Somewhat confident	67	69	66	74 ^Δ	64	62
Not very confident	15	16	12	10	18 ^{ΔΔ}	16
Not at all confident	6	4	6	5	6	5
Number of respondents	581	284	274	196	233	152

*Responses of shareholders who currently own or have previously owned bond funds are statistically different from those who have never owned bond funds at the 95 percent confidence level.

^ΔResponses of shareholders with a low level of understanding of bond fund investing are statistically different from those with a moderate or high level of understanding at the 95 percent confidence level.

^{ΔΔ}Responses of shareholders with a moderate level of understanding of bond fund investing are statistically different from those with a low level of understanding at the 95 percent confidence level.

found among respondents who had a low understanding of bond funds, 85 percent of whom were either very or somewhat confident about using the ratings. Lower percentages were found among those with moderate and high understanding of bond funds, but nonetheless more than three-fourths of these investors were either very or somewhat confident in using the ratings.

Importance of Risk Ratings Relative to Other Sources of Risk Information

If available, risk ratings would be heavily used and would displace other sources of information currently in use. Those participants who had indicated earlier in the survey that they reviewed risk before purchasing a mutual fund provided strong evidence that the risk ratings would be regarded not just as some additional risk information but as relatively important piece of risk information. Altogether, 65 percent of these 319 survey participants placed the risk rating above at least one other risk information item that they typically reviewed before investing. More important, 19 percent of these participants put the risk rating at

FIGURE 15

Summary of Importance of Bond Fund Risk Ratings Relative to Other Risk-related Information Items

(percent of respondents who typically review or ask questions about risk of fund before making a purchase decision)

	All Shareholders	Previous Experience with Bond Fund Investing		Understanding of Bond Fund Investing		
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds	Low	Moderate	High
Percent rating bond fund risk rating as most important item	19	16	22	17	20	21
Percent rating bond fund risk rating as second-most important item	23	28	19	31 ^Δ	18	19
Percent rating bond fund risk rating as either most or second-most important item	42 ¹	44	41	48	39	39
Number of respondents	319	156	152	112	121	86

¹Nineteen percent of this group, or 26 respondents, only ranked the bond fund risk rating and one other item of risk information.

^ΔResponses of shareholders with a low level of understanding of bond fund investing are statistically different from those with a moderate or high level of understanding at the 95 percent confidence level.

the top of their list of risk information items, and another 23 percent put the rating in second place. Therefore, 42 percent would consider the risk rating as either the most or second-most important item of information available to them for risk assessment (Figure 15).

The tendency of risk ratings to displace other sources of risk-related information was consistent among respondents—including those who typically reviewed less risk information (only one or two items) and those who reviewed more (three or more items). For example, of the respondents who review risk and typically evaluate one item of information about risk, slightly more than one-fourth placed bond fund risk ratings ahead of that single item (Figure 16). Among shareholders who assess fund risk and typically examine two items of information about risk, 25 percent indicated that bond fund risk ratings would be the most important

FIGURE 16

Importance of Bond Fund Risk Ratings Relative to Other Risk-related Information Items

(percent or respondents who typically review or ask questions about risk of fund before making a purchase decision)

	Percent	Number of Respondents
Respondents Evaluating Bond Fund Risk Rating and One Other Item		
Percent rating bond fund risk rating as most important item	26	26
Respondents Evaluating Bond Fund Risk Rating and Two Other Items		
Percent rating bond fund risk rating as most important item	25	
Percent rating bond fund risk rating as second-most important item	21	66
Percent rating bond fund risk rating as either most or second-most important item	46	
Respondents Evaluating Bond Fund Risk Rating and Three Other Items		
Percent rating bond fund risk rating as most important item	14	
Percent rating bond fund risk rating as second-most important item	29	71
Percent rating bond fund risk rating as either most or second-most important item	43	
Respondents Evaluating Bond Fund Risk Rating and Four Other Items		
Percent rating bond fund risk rating as most important item	30	
Percent rating bond fund risk rating as second-most important item	8	50
Percent rating bond fund risk rating as either most or second-most important item	38	
Respondents Evaluating Bond Fund Risk Rating and Five or More Other Items		
Percent rating bond fund risk rating as most important item	12	
Percent rating bond fund risk rating as second-most important item	15	106
Percent rating bond fund risk rating as either most or second-most important item	28	

piece of risk-related information that they would review, and 21 percent stated it would be the second-most important. At the same time, 12 percent of respondents who evaluate fund risk and typically consider five or more risk-related items ranked bond fund risk ratings as most important, and 15 percent ranked them as second-most important.

Shareholders' Understanding of Bond Fund Risk Ratings

Survey participants demonstrated considerable misunderstanding of the rating in response to questions about how they would use or interpret the bond fund rating that was contained in the sales literature. Less than one-half of the survey respondents recognized that the rating provided information about interest rate risk, the basic function of the rating. Only 40 percent indicated that the rating could be used to gauge how the fund would perform relative to other bond funds if interest rates were to increase (Figure 17). Respondents' failure to associate the rating with interest rate risk is notable in light of their review of the simulated sales literature and of the disclosure it provides in two places that the risk rating reflects the sensitivity of the fund's net asset value and total return to changes in interest rates. Misunderstanding of the basic nature of the risk rating was apparent among all types of shareholders, but was strongest among those having a low or moderate level of understanding about bond fund investing.

When asked what factors about a fund can be determined from a "R-1" or "extremely low" risk rating, a significant number of survey participants identified information that rating services do not claim their ratings are able to measure. For example, 38 percent thought that the rating was an indicator of how well the fund had previously performed, and 30 percent thought that the rating indicated how the fund would perform during a period of declining stock prices. In addition, 26 percent viewed the rating as determining the likelihood of the fund producing above-average returns; 28 percent regarded it as indicating the possibility of sustaining a loss; and 12 percent saw it as measuring whether the fund had a strong management team.

Finally, many survey participants thought that the specific bond fund that was the subject of the "R-1" or "extremely low" ratings described in the simulated sales literature would be a more appropriate investment than any unrated bond fund. Thirty-five percent of the survey participants indicated that a rated fund was better for them, and 21 percent felt that rated funds would be better than unrated funds for the majority of investors. These shareholders appear to consider a low-risk rating as a favorable attribute per se of a bond fund, and the lack of a rating or a high-risk rating as an unfavorable attribute.

FIGURE 17

Factors that Can Be Determined from an “Extremely Low” or “R-1” Bond Fund Risk Rating by Shareholder Characteristics¹

(percent of respondents)

	All Shareholders	Previous Experience with Bond Fund Investing		Understanding of Bond Fund Investing		
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds	Low	Moderate	High
If interest rates go up, how the fund would likely perform relative to other funds with ratings	40	39	41	39	35	48 ^Δ
How the fund performed in the past	38	37	40	39	36	38
Whether the fund is better for the respondent personally rather than funds with no risk ratings	35	34	35	37	32	36
How the return on the fund will change if the stock market goes down	30	30	32	29	28	35
Whether the respondent could lose money investing in the fund	28	26	30	29	24	34
Whether the fund is likely to produce above-average returns	26	23	31*	28	21	32 ^Δ
Whether the fund is better for the majority of investors than funds with no risk ratings	21	19	25	17	22	27 ^{ΔΔ}
Whether the fund has a strong management team	12	11	14	9	13	13
Number of respondents	584	289	273	200	235	149

¹Multiple responses included.

*Responses of shareholders who currently own or have previously owned bond funds are statistically different from those who have never owned bond funds at the 95 percent confidence level.

^ΔResponses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a moderate level of understanding at the 95 percent confidence level.

^{ΔΔ}Responses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a low level of understanding at the 95 percent confidence level.

Influences of Risk Ratings on Investment Decisions

To explain how risk ratings may prompt investors to choose among different bond funds, survey participants were asked to indicate on a scale of one to five the extent to which funds with a low-risk rating were suitable for them.²⁴ Their responses to this question were analyzed by their answers to some of the background questions posed earlier in the survey, including their willingness to take risk, time horizon for assessing mutual fund risk, and primary investment strategy.

The findings indicate that many investors may be biased toward bond funds with low-risk ratings. Forty-five percent of those respondents with an average tolerance for risk reported that funds with lower-risk ratings were most suited for them. Twenty-seven percent of those with a substantial or above-average tolerance for risk preferred funds with lower-risk ratings (Figure 18). Given the tolerance that these individuals have for risk, it is not obvious that a low-risk bond fund would necessarily be the most appropriate choice. Indeed, the sales literature provided to shareholders characterized the fund as an “alternative to money market funds” and expressly cautioned that “aggressive investors willing to take greater risks for superior bond market yields should consider a longer-term bond fund.” In light of respondents’ wide misunderstanding of the meaning of risk ratings, as discussed above, these results suggest that investors perceive a low-risk rating *per se* to be a favorable fund attribute or indicator of suitability, and a high-risk rating to be the opposite. A likely bias in investment decisions toward low risk ratings was seen in other classifications of responses to this question. For example, 40 percent of shareholders who evaluate risk over a time horizon in excess of five years, and 37 percent who listed achieving long-term growth as their primary investment strategy, described themselves as preferring funds with low risk ratings. In sum, the findings suggest that the presence of a low risk rating may influence investor selection of bond funds in ways neither intended by ratings nor beneficial to many investors.

²⁴ A response of “one” indicated that such funds would be the most suitable for them, whereas a response of “five” indicated that funds with high-risk ratings would be the most suitable.

FIGURE 18

Likelihood of Buying Bond Funds with Low Risk Ratings by Willingness to Assume Risk and Time Horizon for Assessing Risk

(percent of respondents indicating one or two, where one equals would buy funds with low risk ratings and five equals would buy funds with high risk ratings)

	Level of Risk Willing to Assume		
	Substantial or Above-average Risk	Average Risk	Below-average or No Risk
	27	45*	75**
Number of respondents	271	201	124

	Time Horizon for Assessing Fund Risk					
	Less than 1 year	1 to 5 years	6 to 10 years	More than 10 years	5 years or less	6 years or more
	35	40	45	42	40	44
Number of respondents	56	351	129	44	407	173

*Responses for shareholders willing to take average risk are statistically different from those willing to take substantial or above-average risk at the 95 percent confidence level.

**Responses for shareholders willing to take below-average or no financial risk are statistically different from those willing to take substantial or above-average risk and average risk at the 95 percent confidence level.

Shareholders’ Expectations and Assumptions About the Risk Ratings

A final series of questions was designed to probe the assumptions that survey participants made about the rating process and rating services when provided a risk rating in sales literature. These questions were intended to explore the underpinnings of participants’ impressions of such ratings. The results indicate that shareholders have high expectations about the qualities and availability of such ratings and of the rating process—expectations that would be inconsistent with how bond fund risk ratings would actually operate. Seventy percent of the survey participants indicated their expectation that every fund would be rated, while 83 percent anticipated all ratings would be publicly available, even those conveying high risk. Eighty-two percent would expect to be able to compare funds based upon their risk ratings. In addition, 81 percent would assume a consistent methodology would be applied to every fund in determining its risk rating, and 78 percent

FIGURE 19

Shareholders' Opinion on the Likelihood of Bond Fund Risk Ratings Having Certain Attributes by Previous Experience of Bond Fund Investing and Understanding of Bond Fund Investing

(percent of respondents indicating very or somewhat likely)

	All Shareholders	Previous Experience with Bond Fund Investing		Understanding of Bond Fund Investing		
		Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds	Low	Moderate	High
A fund's risk rating would be publicly available even if the rating were high risk	83	84	82	87	78 ^Δ	86
Bond funds could be compared with one another based on their risk ratings	82	85	80	85	80	80
A consistent method would be used to assign ratings to all bond funds	81	83	78	86 ^{ΔΔ}	81	75
Risk ratings would be based solely on statistical data, not opinion	78	78	76	84 ^Δ	73	76
The methods used by rating companies to calculate risk ratings would be subjected to review by independent third parties	74	77	69*	78	73	70
A risk rating would be available for every bond fund	70	73	66	72	69	69
The companies that rate funds, including their rating systems, would be regulated by a government agency	61	67	55*	69	61	48 ^{ΔΔΔ}
Companies that rate funds would be liable if their ratings are inaccurate and investors lose money	25	24	27	28 ^{ΔΔ}	27	18

*Responses of shareholders who currently own or have previously owned bond funds are statistically different from those who have never owned bond funds at the 95 percent confidence level.

^ΔResponses of shareholders with a moderate level of understanding of bond fund investing are statistically different from those with a low or high level of understanding at the 95 percent confidence level.

^{ΔΔ}Responses of shareholders with a low level of understanding of bond fund investing are statistically different from those with a high level of understanding at the 95 percent confidence level.

^{ΔΔΔ}Responses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a low or moderate level of understanding at the 95 percent confidence level.

Note: Number of respondents varies.

would expect the rating to be based solely upon statistical data. Seventy-four percent thought that an independent third party would review the rating methodology, and 61 percent would expect the rating agencies to be government regulated. Twenty-five percent of shareholders expected that the companies that rate funds would be liable if their ratings were inaccurate and investors lost money (Figure 19).

APPENDIX A: CHARACTERISTICS OF RESPONDENTS

The shareholders who participated in the survey were selected from among the general fund-owning population and, therefore, tended to have characteristics similar to those of shareholders nationwide. For example, the typical shareholder who participated in the survey was 42 years old and had a household income of \$60,500. Nationwide, the typical shareholder is 44 years old and has a household income of \$60,000. Also, similar to fund owners across the nation, the majority of respondents were married, employed and college graduates. Less than one-fourth of survey participants were retired from their lifetime occupation. Nationally, 18 percent of all shareholders are retired (Figure 20).²⁵

The median amount of household financial assets was \$84,000 for respondents, excluding primary residence and holdings in employer-sponsored retirement plans.²⁶ Of that amount, a median of \$25,500, or 30 percent, was invested in three mutual funds.

Seventy-two percent of respondents owned equity funds, 36 percent owned balanced or mixed-income funds, 33 percent owned money market funds, and 31 percent owned bond funds.^{27, 28} Fifty-four percent of respondents had never owned bond mutual funds at the time of the survey and 15 percent were previous owners of bond funds.

The vast majority of shareholders who participated in the study had long-term financial goals and long-term investment strategies. Seventy-one percent of respondents listed financing retirement as the primary purpose for their mutual fund investments. Another 14 percent pointed to paying for education. To reach their financial goals, 68 percent of shareholders said they focus on achieving long-term growth from mutual fund investments. Only 5 percent indicated they were trying to obtain a high rate of return over the short term. Fifteen percent reported their primary investment strategy to be obtaining a steady stream of

²⁵ A recent Institute study presented the demographic, financial and fund ownership characteristics of a randomly selected sample of 1,165 mutual fund shareholders owning mutual funds outside of employer-sponsored retirement plans in July 1995. See *Mutual Fund Shareholders: The People Behind the Growth* (Investment Company Institute, 1996) at p. 4.

²⁶ The median household financial assets of shareholders nationwide is \$50,000 and the median amount invested in funds is \$18,000. *Id.* at p. 5-6.

²⁷ Balanced and mixed-income funds are categorized by the Investment Company Institute as bond and income funds.

²⁸ Survey participants' ownership of stock funds and bond and income funds is similar to that of shareholders nationwide. See *Mutual Fund Shareholders: The People Behind the Growth* (Investment Company Institute, 1996) at p. 4.

FIGURE 20

Selected Characteristics of Respondents to the Study and All Shareholders

	Survey Respondents	All Shareholders*
Median		
Age	42 years	44 years
Household income	\$60,500	\$60,000
Household financial assets ¹	\$84,000	\$50,000
Financial assets held in mutual funds ²	\$25,500	\$18,000
Number of funds owned ³	3	3
Percent of financial assets held in funds ²	30%	36%
Length of fund ownership ³	7 years	9 years
Percent		
Male	49	57
Married	71	71
Completed college or postgraduate	59	58
Employed full- or part-time ⁴	71	80
Retired from life-time occupation	23	18
Types of mutual funds currently owned: ⁵		
Equity	72	73
Bond	31	37
Balanced and mixed-income	36	32
Money market	33	52
Primary mutual fund purchase channel:		
Sales force	61	66
Direct market ⁶	35	29
Other (e.g., accountant or lawyer)		
Primary financial goal is saving for retirement	71	NA
Primary investment strategy is achieving long-term growth	68	NA

¹Excludes primary residence and assets in employer-sponsored retirement plans.

²Excludes mutual fund assets in employer-sponsored retirement plans.

³Excludes mutual funds owned through employer-sponsored retirement plans.

⁴Includes self-employed.

⁵Multiple responses included.

⁶Includes purchasing directly from a fund company or a discount broker.

NA = Not available

*Based on telephone interviews with 1,165 mutual fund shareholders in July and August in 1995. See Mutual Fund Shareholders: The People Behind the Growth (Investment Company Institute, 1996).

Note: Number of respondents varies.

income from investment holdings, and 11 percent cited preserving an original investment over the long term.²⁹

Characteristics by Ownership of Bond Mutual Funds

The shareholders who had never owned a bond fund were fairly young and rather new to mutual fund investing; the median age of this group was 40 years and the median tenure in funds was five years. This segment's median household income was \$61,900 and its median household financial assets were \$69,700, of which 27 percent was invested in three mutual funds. Most of the respondents who had never owned a bond fund were female, employed and college graduates (Figure 21).

In contrast, shareholders who owned or had previously owned a bond fund tended to be older, more established investors compared with shareholders who had never owned a bond fund. The typical shareholder who currently or previously owned a bond mutual fund was 47 years old, had a household income of \$59,500 and household financial assets of \$109,000. Nearly 40 percent of household financial assets were typically invested in four mutual funds. The typical current or previous bond fund owner had been investing in mutual funds since 1988, almost twice the length of time of shareholders who had never owned a bond fund. The majority of current or previous bond fund owners were male and most were employed. However, 29 percent of this group were retired from their lifetime occupation, compared with 19 percent of respondents who had never owned a bond fund (Figure 21).

Characteristics by Understanding of Bond Fund Investing

The typical shareholder with a low level of understanding of bond fund investing was a 38 year-old female with a household income of \$57,500 and household financial assets of \$50,600, of which 32 percent was invested in three mutual funds. This shareholder group had typically owned funds for just five years and only 20 percent owned a bond fund. Two-thirds owned equity funds and 30 percent owned money market funds. Seventy percent of shareholders with a low level of understanding of bond fund investing primarily purchased sales force-distributed funds (Figure 22).

²⁹ The primary financial goal and investment strategy of responding shareholders are very similar to those of the respondents who participated in the Institute's study on shareholders' assessment of risk disclosure methods. In that study, 73 percent of participating shareholders listed financing retirement as their primary financial goal and 64 percent mentioned achieving long-term growth as their primary investment strategy. See *Shareholder Assessment of Risk Disclosure Methods* at p. 34.

FIGURE 21

Characteristics of Shareholders by Previous Experience with Bond Fund Investing

	Previous Experience with Bond Fund Investing	
	Have Never Owned Bond Funds	Currently Own or Previously Owned Bond Funds
Median		
Age	40 years	47 years
Household income	\$61,900	\$59,500
Household financial assets ¹	\$69,700	\$109,000
Financial assets held in mutual funds ²	\$18,900	\$42,200
Number of funds owned ³	3	4
Percent of financial assets held in funds ²	27%	39%
Length of fund ownership ³	5 years	9 years
Percent		
Male	47	51
Married	74	65*
Completed college or postgraduate	56	62
Employed full- or part-time ⁴	75	65*
Retired from life-time occupation	19	29*
Types of mutual funds currently owned: ⁵		
Equity	77	67*
Bond	0	68*
Balanced and mixed-income	27	48*
Money market	32	35
Primary mutual fund purchase channel:		
Sales force	58	63
Direct market ⁶	39	32
Other (e.g., accountant or lawyer)	3	5
Primary financial goal is saving for retirement	74	65*
Primary investment strategy is achieving long-term growth	70	66

¹Excludes primary residence and assets in employer-sponsored retirement plans.

²Excludes mutual fund assets in employer-sponsored retirement plans.

³Excludes mutual funds owned through employer-sponsored retirement plans.

⁴Includes self-employed.

⁵Multiple responses included.

⁶Includes purchasing directly from a fund company or a discount broker.

*Responses of shareholders who currently own or have previously owned bond funds are statistically different from those who have never owned bond funds at the 95 percent confidence level.

Note: Number of respondents varies.

Shareholders with a moderate understanding of bond fund investing had a median age of 42 years. The median household income of this group was \$58,000 and the median household financial assets was \$92,300. Thirty-three percent of household financial assets typically were invested in a median of three mutual funds. The average shareholder with a moderate understanding of bond fund investing was a female with six years of experience in investing in mutual funds. This individual typically owned equity funds but not bond funds or money market funds. Sixty-three percent of this group indicated they primarily buy their funds from a sales force representative (Figure 22).

The typical shareholder with a high level of understanding of bond fund investing was 49 years old, the oldest of all segments, and had household income of \$73,200 and household financial assets of \$171,600, both of which were the greatest of all segments. Shareholders with a high level of understanding of bond fund investing tended to be very experienced investors; the median length of fund ownership for this group was 10 years and the median number of funds owned was four. Eighty-five percent of these shareholders owned equity funds; 42 percent owned bond funds (the greatest proportion of any segment); and 37 percent owned money market funds. Unlike shareholders with less understanding of bond funds, the majority of shareholders with a high level of understanding indicated that they primarily purchase direct-marketed mutual funds (Figure 22).

FIGURE 22

Characteristics of Shareholders by Level of Understanding of Bond Fund Investing

	Understanding of Bond Fund Investing		
	Low	Moderate	High
Median			
Age	38 years	42 years	49 years
Household income	\$57,500	\$58,000	\$73,200
Household financial assets ¹	\$50,600	\$92,300	\$171,600
Financial assets held in mutual funds ²	\$16,000	\$30,300	\$56,500
Number of funds owned ³	3	3	4
Percent of financial assets held in funds ²	32%	33%	33%
Length of fund ownership ³	5 years	6 years	10 years
Percent			
Male	32	49*	76***
Married	68	69	79***
Completed college or postgraduate	56	56	69***
Employed full- or part-time ⁴	71	70	74
Retired from lifetime occupation	17	25*	28**
Types of mutual funds owned: ⁵			
Equity	66	71	85***
Bond	20	32*	42***
Balanced and mixed-income	29	39*	43**
Money market	30	32	37
Primary mutual fund purchase channel:			
Sales force	70	63	41***
Direct market ⁶	26	32	56***
Other (e.g., accountant or lawyer)	4	5	3
Primary financial goal is saving for retirement	70	71	71
Primary investment strategy is achieving long-term growth	71	62	75****

¹Excludes primary residence and assets in employer-sponsored retirement plans.

²Excludes mutual fund assets in employer-sponsored retirement plans.

³Excludes mutual funds owned through employer-sponsored retirement plans.

⁴Includes self-employed.

⁵Multiple responses included.

⁶Includes purchasing directly from a fund company or a discount broker.

*Responses of shareholders with a moderate level of understanding of bond fund investing are statistically different from those with a low level of understanding at the 95 percent confidence level.

**Responses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a low level of understanding at the 95 percent confidence level.

***Responses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a moderate or low level of understanding at the 95 percent confidence level.

****Responses of shareholders with a high level of understanding of bond fund investing are statistically different from those with a moderate level of understanding at the 95 percent confidence level.

Note: Number of respondents varies.



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