Shareholder Assessment of Risk Disclosure Methods

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Spring 1996

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Introduction

In March 1995, the Securities and Exchange Commission (the Commission) issued a Concept Release titled "Improving Descriptions of Risk by Mutual Funds and Other Investment Companies"[1] that solicited comments about risk disclosure from the professional investment community and from individual mutual fund shareholders. The Concept Release included a series of questions designed specifically for individual investors. The Commission's questions directed to individual shareholders asked them to define risk, to describe the information needed to evaluate risk, and to list their sources of information about risk.[2] The Commission also asked whether investors "find information most helpful when it is in the form of written descriptions, numbers, graphs, tables, charts, pictures, or some other form."[3] In particular, shareholders were asked about the usefulness of a bar chart of annual total returns, standard deviation,[4] duration,[5] and a table depicting the level of fund risks. In addition to these disclosure approaches, the investment community was asked to comment on the potential usefulness to investors of semi-variance, beta, Sharpe's Ratio, Treynor's Ratio, and Jensen's Alpha.[6]

Using the Commission's Concept Release as a starting point for constructing the Institute's questionnaire, the Investment Company Institute surveyed a randomly selected sample of recent buyers of stock or bond funds to determine their reaction to three of the disclosure methods presented in the Concept Release. These were 1) narrative disclosure, 2) graphic disclosure of a fund's total return for each of the past ten years, together with a presentation of a fund's average annual return for one, five, and ten-year periods, and 3) three quantitative measures: standard deviation of total return, beta,[7] and duration. The survey did not include the table of fund risks because

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1 Investment Company Act Release No. 20974 (March 29, 1995) ("the Concept Release").

2 The questions constituted a self-administered, non-random survey. The Commission printed the shareholder survey separately and mailed it to investors upon request. Those not interested in using the survey form could send the Commission a letter with their ideas on mutual fund risk disclosure.

3 Concept Release, page 32.

4 Standard deviation of total return measures the volatility of a fund's returns around its average return over a particular period of time. A mutual fund with a larger standard deviation has a wider range of variation in its returns than a mutual fund with a smaller standard deviation.

5 Duration measures a bond fund's sensitivity to a change in interest rates. In general, an increase in interest rates causes bond prices to fall. Because bond mutual funds primarily hold bonds, the share price of bond funds also moves in the direction opposite to interest rates. The higher a bond fund's duration, the more sensitive it is to interest rate changes.

6 Concept Release, page 5.

7 Beta measures a mutual fund's sensitivity to market movements by comparing the fund's returns to the returns of the stock or bond market as measured by a benchmark index. A beta greater than one means that the fund's returns have been more volatile than the returns of the relevant benchmark. A beta less than one means that the fund's returns have been less volatile than those of the relevant benchmark.

the method presented in the Concept Release did not provide sufficient guidance to prepare such a table. Other quantitative measures such as semivariance, Sharpe's Ratio, Treynor's Ratio, and Jensen's Alpha were not included primarily because these measures seemed to be less commonly used than the three quantitative measures included in the survey.

In addition to identifying shareholders' responses to the five risk disclosure methods, the Institute survey also collected information on shareholders' perceptions of and attitudes toward mutual fund risk, information sources for mutual fund risk, current use of quantitative measures to assess mutual fund risk, and demographic and financial characteristics.

Executive Summary

The Investment Company Institute engaged Response Analysis Corporation, an independent research firm with twenty-seven years of experience in the financial services area, to conduct a quantitative survey of shareholders' assessment of three distinct risk disclosure methods: 1) narrative disclosure, 2) graphic disclosure of a fund's total return for each of the past ten years, together with a presentation of a fund's average annual return for one, five, and ten-year periods, and 3) three quantitative measures: standard deviation of total return, beta, and duration. In-person interviews were completed with 657 shareholders who had purchased at least one long-term fund in the preceding five years.

Mutual Fund Shareholders and Risk

Mutual fund investors are concerned about risk. Sixty-nine percent of respondents said they examined a fund's investment risk before making their most recent purchases. Only fund performance was cited more frequently as information that respondents reviewed before making a purchases. (See page 11.)

The concept of investment risk varies widely among mutual fund shareholders. From a list of eight risk concepts, participants selected those that they would include in their definitions of mutual fund risk. The most frequently cited were the chance of losing some of an original investment, the value of fund investments fluctuating up and down, not having sufficient money at the end of an investment horizon to achieve financial goals, and fund investments not keeping pace with inflation. (See page 13.)

Risk is a multifaceted concept. Over 80 percent of respondents included two or more of the eight risk concepts in their definitions of risk. (See page 13.)

Most investors assess mutual fund risk over a long-term horizon. Respondents' median time horizon for assessing fund risk is eight years. Sixty-three percent indicated a time horizon of more than five years and only 4 percent had a risk time horizon of less than one year. (See page 13.)

The longer the investment horizon, the less is the concern for short-term volatility. Of those respondents with a risk time horizon of less than one year, 30 percent said they were concerned about short-term fluctuations in their mutual fund investments, whereas only 5 percent of those with a time horizon of ten years or more expressed such concerns. (See page 14.)

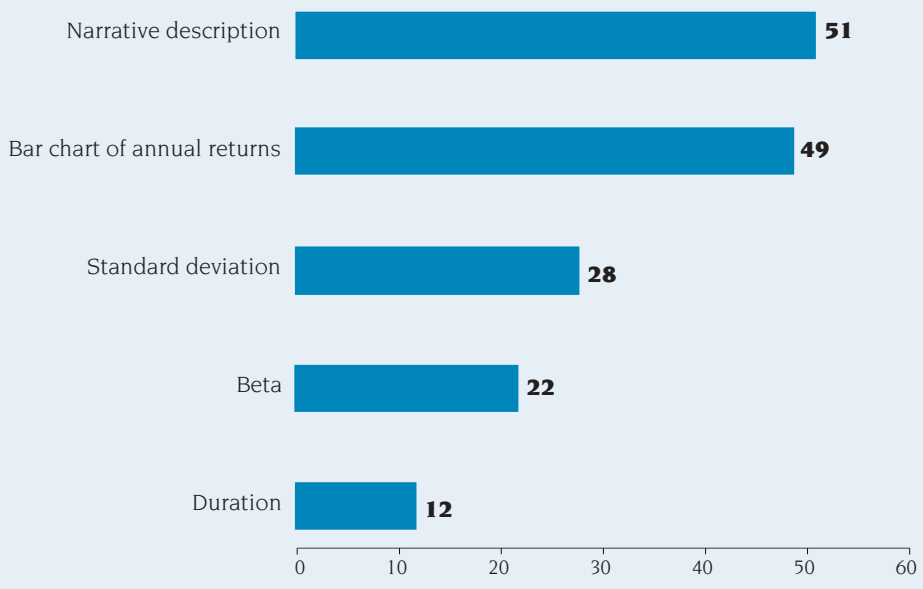
Most mutual fund shareholders have not used quantitative risk measures. Only a total of 26 percent of respondents reported having used quantitative measurements when making mutual fund purchase decisions. Specifically, 14 percent cited using standard deviation of total return, 14 percent bond fund duration, 10 percent beta, 4 percent Jensen's Alpha, and 4 percent Sharpe's Ratio. (See page 14.)

Many shareholders who have used quantitative measures have not used them for their specialized purposes. Only 35 percent of respondents who reported having used beta indicated using it to measure a mutual fund's sensitivity to market movements by

FIGURE 1

Recent Buyers Responding as Being Very Confident in Using Selected Risk Disclosure Methods to Assess the Risks of a Single Fund

(percent of respondents)

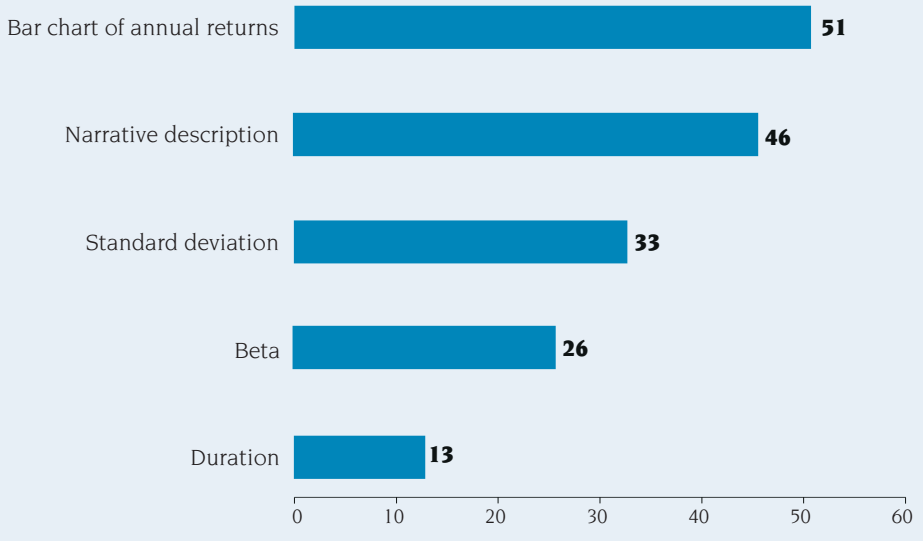


Number of respondents = 650

FIGURE 2

Recent Buyers Responding as Being Very Confident in Using Selected Risk Disclosure Methods to Compare the Risks of Several Similar Funds

(percent of respondents)



Number of respondents = 646

comparing a fund's returns to the returns of the stock or bond market as measured by a benchmark index. In addition, only 35 percent of reported users of bond fund duration have used duration to assess interest rate risk. (See page 17).

The majority of shareholders who report using quantitative risk measures expect to use their mutual fund investments to finance their retirement—a long-term goal for which short-term volatility measures such as standard deviation and beta are not especially relevant. Seventy-one percent of standard deviation users and 80 percent of beta users indicated the primary financial goal for their mutual fund investments is saving for retirement. The median investment horizon for standard deviation users is 8 years; for beta users, it is 10 years. (See page 23.)

Assessment of Risk Disclosure Methods

Shareholders most prefer the graphic presentation of annual returns provided by the bar chart as a means to evaluate risk. Respondents indicated that the bar chart simplifies risk disclosure, is something they can use without further study, provides the right amount of technical information, and is reliable across all types of market conditions. (See page 21.)

Shareholders also give narrative description of risk a positive assessment. Respondents reported that narrative description simplifies the evaluation of mutual fund risk, has the right amount of technical information, is something they can use without further study, and is suitable for investors like themselves. Respondents tended to think narrative descriptions are not very reliable across all market conditions, however, and some indicated that the narrative description was too technical. (See page 21.)

- **Shareholders indicate that standard deviation, duration, and beta are complex methods of evaluating mutual fund risks.** Respondents viewed quantitative risk measures as too technical, as inaccessible without further study, and as not reliable across all types of market conditions. Most respondents did not see standard deviation, beta, or duration as being useful for investors like themselves. (See page 21.)

- **Shareholders are not very confident about using standard deviation, beta, and duration to assess fund risks**. Just 28 percent of respondents were very confident using standard deviation to evaluate a fund's risks, 22 percent were very confident using beta for this purpose, and 12 percent duration. In contrast, 51 percent of respondents were very confident using the narrative description and 49 percent were very confident using the bar chart of annual returns to assess a fund's risks. Results were similar with regard to using the methods to compare fund risks (Figures 1 and 2). (See pages 22 and 37.)

- **Even shareholders who report previously using standard deviation, beta, and duration are not highly confident about using these measures in the future**. For example, 54 percent of standard deviation users, 54 percent of beta users, and 70 percent of duration users were not very confident about using these measures in the future to evaluate a fund's risks. (See page 22.)

- **Following only a brief exposure to quantitative measures, a significant minority of mutual fund shareholders without previous experience in using such measures expressed confidence in using them in the future.** For example, 25 percent of respondents who had never used standard deviation and 20 percent who had never used beta felt very confident about using these measures after reviewing the one-page descriptions. Despite this expressed level of confidence, it is open to question whether so many respondents could actually have gained sufficient insight from such limited exposure to use quantitative methods successfully when making investment decisions. (See page 23.)

Chapter 1

Research Methodology

Research Design

The Institute's survey, conducted by Response Analysis Corporation (RAC),[8] involved in-person, in-home interviews with 657 randomly selected households that had made a recent purchase of a stock or bond fund.[9] In-person interviews were necessary to ensure that respondents reviewed the exhibits showing the risk disclosure methods; other methodologies could not provide this assurance. Each interview took about one hour to complete.

To ensure that survey participants were familiar with mutual funds and to increase their likelihood of having assessed mutual fund risks in the recent past, participating households had to be "recent" buyers of stock or bond funds; that is, they had to have purchased shares of a stock or bond fund of which they had owned no previous shares prior to 1990.[10] This requirement excluded households that had only invested additional money in funds purchased prior to 1990. In addition, households that only made "recent" purchases of money market funds were excluded because money market funds do not have risk characteristics readily comparable to those of stock and bond mutual funds. Moreover, households that only made "recent" mutual fund purchases through employer-sponsored plans or thrift plans were excluded. Finally, all interviews were held with persons who were either primary or co-decisionmakers for household saving and investment.

Using a computerized, multi-stage sampling frame constructed from 1990 Census data, RAC randomly selected sixty sampling areas throughout the contiguous United States to serve as interview sites for the Institute survey. The sampling frame includes all areas of the United States, down to the street level. In the first stage of the sampling procedure, RAC randomly selected 100 primary sampling units (PSUs), which are either a county, a group of counties, or a Metropolitan Statistical Area (MSA).[11] In the second stage of the sampling procedure, RAC randomly selected 400 secondary sampling units (SSUs)[12] to form a pool from which

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8 RAC, located in Princeton, New Jersey, was founded in 1969 and has a staff of 115 people. RAC specializes in empirical research related to financial services.

9 The interviews were completed between August 25 and October 23, 1995. 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. Prior to recruiting respondents for the Institute survey, RAC required all interviewers to review a comprehensive training manual and to watch an accompanying videotape. Interviewers with procedural questions were able to contact RAC staff via a toll-free number.

10 "Recent" buyers, who may have previously owned other funds, should not be confused with "new" shareholders, who purchased their first fund since January 1993. While all respondents in this survey are recent buyers, only 25 percent of "recent" buyers are "new" shareholders.

11 Each of RAC's PSUs has a population of at least 80,000.

12 SSUs are either Census Block Groups or Enumeration Districts. Census Block Groups and Enumeration Districts with populations of less than 4,000 were grouped with other Census Block Groups and Enumeration Districts.

FIGURE 3

Selected Characteristics of Recent Buyers of Stock and Bond Funds[a] and All Shareholders[b]

	Recent Buyers	All Shareholders
Median		
Age	44 years	44 years
Household income	$63,300	$60,000
Household financial assets[c]	$81,800	$50,000
Financial assets held in mutual funds	$23,600	$18,000
Number of funds owned	3	3
Percent of financial assets held in mutual funds	29%	36%
Length of fund ownership	6 years	9 years
Percent		
Male	58%	57%
College degree or more	61	58
Employed full- or part-time[d]	80	80
Mutual funds owned:[e]		
Stock	78	73
Bond	66	49
Money Market	39	52
Primary mutual fund purchase channel:		
Sales force	59	66
Direct Market[f]	39	29
Other (e.g., accountant or lawyer)	3	6

[a] based on in-person interviews with 657 recent buyers of stock or bond funds conducted in August through October 1995

[b] based on telephone interviews with 1,165 mutual fund shareholders conducted in July and August 1995

[c] excludes primary residence and assets in employer-sponsored retirement plans

[d] includes self-employed

[e] multiple responses included

[f] includes purchasing directly from a fund company or a discount broker

Note: N*umber of respondents vary.*

samples for specific studies are drawn. For the Institute study, 60 SSUs were randomly selected.

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 began interviewing at the starting point and continued along a prespecified travel path[13] until he or she completed a quota of 10 interviews.[14] A minimum of three callbacks was made at each household. Of the 8,042 households successfully contacted, 62 percent did not qualify to participate in the research, 30 percent refused to participate, and 8 percent qualified and agreed to participate.

The sample was weighted using an iterative proportional fitting algorithm and the results reported in the text reflect that weighting. The application of weights to the raw data forced the distribution of the sample to reflect the target distributions for variables such as respondent gender, age, income, and Census region. In setting the target distributions, data were used from both

[13] RAC field staff follow a specific set of prescribed procedures to draw the prespecified path on interviewers' maps.

[14] Several interviewers exceeded their quota, so that the total number of interviews completed was 657 rather than the anticipated 600. RAC determined that 600 interviews was sufficient to represent the population of recent buyers of stock and bond funds with an acceptable margin of error.

FIGURE 4

Sampling Errors at the 95 Percent Confidence Level for Selected Percentages of Responses

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	2	3	4	4	4
500	3	4	4	5	5
250	4	5	6	6	6
100	6	8	9	10	10

This table shows that if, for example, the sample size is 700 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 ± 2 percent 95 percent of the time.

the Census Bureau (for regional weights) and from another Institute study of recent buyers of long-term funds, *Understanding Shareholder Needs for Information and Advice* (for gender, age, and income weights).[15] In addition to bringing the sample into line with target weights, the weighting corrected for differential responses across respondent subgroups and other random effects.

Summary of Characteristics of Responding Shareholders

Recent stock or bond fund buyers represent an estimated 54 percent of all households owning mutual funds and, thus, would not necessarily mirror the characteristics of the entire population of fund-owning households. Nevertheless, the participants in the survey have many of the characteristics found among shareholders nationwide.[16] For example, almost 60 percent of financial decisionmakers in the survey are male, 80 percent are employed, and 61 percent have college degrees. In addition, 73 percent of respondents are saving for retirement and 78 percent own stock funds. Furthermore, survey respondents typically own three mutual funds and primarily purchase mutual funds from the sales force channel. All of these data are approximately the same as those for the entire shareholder population.

Several characteristics of the sample of recent buyers differ from those of shareholders nationwide. Most significantly, recent buyers have greater household financial assets than do shareholders nationally. The median household financial assets of recent buyers participating in the survey is $81,800, compared with $50,000 for the entire population of shareholders. In addition, the median of the percent of household financial assets invested in mutual funds is 29 percent for survey participants, whereas the median for the entire shareholder population is 36 percent. More survey respondents own stock and bond funds than do shareholders nationally. The median number of years that survey respondents have owned funds is six years, compared with nine years for all shareholders (Figure 3).[17, 18]

[15] The anticipated publication date for this report is Spring 1996.

[16] The Institute conducted a survey with a representative sample of 1,165 mutual fund shareholders owning mutual funds outside of employer-sponsored retirement plans in July 1995. The results of this survey will be published in the forthcoming report, *Mutual Fund Shareholders: The People Behind the Growth*.

[17] The median amount in household financial assets is based on category data. The median percent of household financial assets invested in mutual funds is the proportion derived from dividing the median amount in mutual funds into median household financial assets.

[18] See Appendix B for more details on responding shareholders' characteristics.

Questionnaire Design

The survey contained questions on both the role of risk in the mutual fund purchase decision and the three approaches to risk disclosure. To obtain information on the role of risk in the purchase process, the survey asked about respondents' most recent stock or bond fund purchases.[19]

A separate exhibit was prepared for each disclosure method included in the study—narrative disclosure, a bar chart of annual total returns, standard deviation, beta, and duration. Each exhibit explained the method and gave several examples of its application.[20] To eliminate order bias, the bar chart of annual returns, standard deviation, and beta were rotated between the second, third, and fourth positions. The narrative description was always placed in first position because it was likely to be the method most familiar to respondents and, therefore, an appropriate one with which to begin the exercise. Duration always came in last position because it is different from the other four in that it only applies to bond funds; positioning it last was thought to be less confusing to respondents. Altogether, six different ordering schemes were created and dispersed evenly among the interviewees.

The survey questionnaire was pretested several times to ensure that questions and exhibits were worded in a manner that shareholders could understand. In pretesting, it became evident that the survey should not attempt to objectively test shareholders' ability to apply correctly the risk disclosure methods. Shareholders typically guessed when asked to apply a method in a hypothetical investment decision, as in assessing a fund's ability to meet a particular investment objective, such as long-term growth. Instead, it was determined that a more appropriate approach would be to identify whether shareholders used the three quantitative measures in the past, and if so, how these measures were used.

Sampling Tolerances

The use of sample surveys is standard practice for deriving estimates about a total population.[21] Estimates derived through sample surveys are subject to sampling error. As sample size increases, the level of potential sampling error generally becomes smaller. The findings in this report based on the full sample represent the total population of recent buyers of long-term funds with an overall sampling error of plus or minus 5 percent at the 95 percent confidence level. Figure 4 shows the approximate sampling error for estimates of proportions computed for the sample as a whole and for various subsamples.

Due to rounding to the whole integer, some totals in figures throughout the report may not equal exactly 100 percent.

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[19] Financial research has found that individuals consider investing an important subject but find it difficult to discuss. The best way to obtain an assessment from individuals on financial subjects is to relate questions to a specific past event rather than asking questions in the abstract. [See John F. Swift and Roger J. Stubbs, "Market Research in the Financial Field," *Consumer Market Research Handbook*, Robert Worcester and John Downham, editors (London: McGraw-Hill Company, 1986), p. 618.]

[20] Copies of the exhibits used for each of the five risk disclosure methods are in Appendix A.

[21] For a detailed discussion of survey sampling, see W.E. Deming, *Sample Designs in Business Research* (New York: Wiley and Sons, 1991).

Chapter 2

Mutual Fund Shareholders and Risk

Importance and Awareness of Risk

Most investors are concerned about the risk involved in investing in mutual funds. Sixty-nine percent of recent buyers of stock or bond funds indicated they had considered the risk of their most recent fund purchases. Only fund performance received more attention, with 75 percent of recent buyers reporting they had reviewed such information. Both of these aspects of fund investment ranked well ahead of other information reviewed, indicating that the vast majority of survey participants take seriously the task of assessing the potential risks and returns of prospective mutual fund investments (Figure 5).

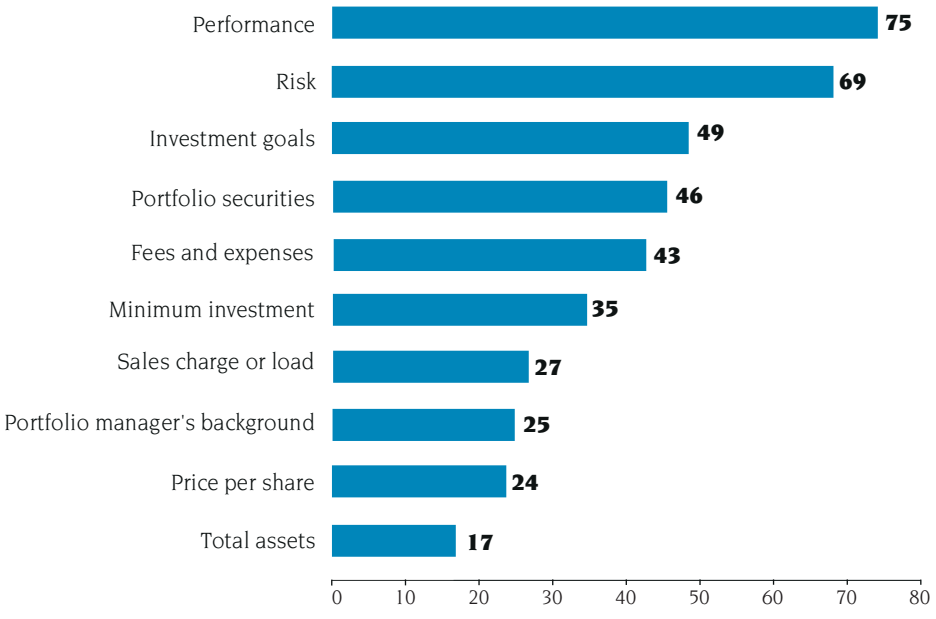
Survey participants were aware that mutual funds involve investment risk. Indeed, 97 percent agreed that mutual fund investments required accepting some degree of risk. The tolerance for risk among survey participants varied, although 84 percent in total indicated a willingness to take at least average risk to attain average gain. The remaining 16 percent were extremely risk averse (Figure 6).

Nine out of ten participants felt that the overall level of risk of their mutual fund portfolios was appropriate for their risk preferences. Seventy-three percent of recent buyers reported having no concern about short-term fluctuations in the value of their investments.

FIGURE 5

Information Reviewed by Recent Buyers Before Making Most Recent Purchase of a Stock or Bond Fund[a]

(percent of respondents)



[a] multiple responses included

Number of respondents = 653

FIGURE 6

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	37
Average financial risk but only expect to make an average monetary gain	39
Below-average financial risk but understand I may make a below average monetary gain	11
No financial risk	5

Number of respondents = 654

FIGURE 7

Recent Buyers' Characterization of Mutual Fund Risk in Their Own Words[a]

(percent of respondents)

Chance or risk of losing money (net)	**51**
Loss of original investment	30
Chance of losing money, size of potential loss	20
Losing money in the short-term, immediate loss of money	2
Chance of an investment not keeping pace with inflation	1
The chance of making money and the chance of losing money (net)	**26**
Taking a risk for a possible gain, potential for higher gains	14
Chance for a gain or a loss	13
Volatility, effects of the market (net)	**7**
Swings in the value of an investment	6
Market fluctuations, volatility of the stock market	2
Not realizing a return on my investment	**6**
Stability of the investment or the investment company (net)	**3**
Financial stability of the sponsoring company	1
Mutual funds safer than other types of investment	1
Mutual funds are not insured investments	1
Not having enough money at the end of the investment horizon to achieve financial goals	**2**
All investments have risks	**6**
Other	**8**

Number of respondents = 637

[a] All open-ended responses with similar meanings were grouped together. Some respondents indicated more than one characteristic; multiple responses are included. A "net" is an aggregation of subcategories where respondents are only counted once regardless of multiple responses across subcategories.

Shareholders' Definition of Risk

Respondents to the Institute survey were asked to describe the concept of mutual fund risk in their own words.[22] The two most common characteristics that shareholders mentioned were "loss of money" and "gain relative to chance of loss." Fifty-one percent of respondents associated risk with losing money, although the words respondents used to communicate this concept varied considerably. Twenty-six percent of respondents provided definitions encompassing the risk and reward aspects of investment risk. Again, the words used to describe this concept varied, including definitions such as taking a risk in order to achieve a possible gain, and the chance for a gain or a loss.

A small portion of respondents, 7 percent, provided definitions that communicated the concept of investment volatility. Six percent mentioned not realizing a return on an investment. Three percent viewed mutual fund risk as safety and stability, either the financial stability of the company offering the fund or the relative safety or riskiness of mutual funds versus other investments (Figure 7).

To gain further understanding of shareholders' views on mutual fund risk, respondents were asked to identify from a list of concepts those included in their definitions of risk. The concepts were the chance of 1) losing some of an original investment, 2) the value of fund investments not keeping pace with inflation, 3) the value of fund investments fluctuating up and down, 4) not having sufficient wealth at the end of an investment horizon to achieve financial goals, 5) the income distributed by a fund declining, 6) fund investments not performing as well as bank certificates of deposit, 7) fund investments not performing as well as an index, and 8) having investment losses within the first year.

FIGURE 8

Concepts Included in Recent Buyers' Definitions of Mutual Fund Risk

(percent of respondents)

The chance of.....[a]	
Losing some of original investment	57
Mutual fund investments not keeping pace with inflation	47
The value of mutual fund investments fluctuating up and down	46
Not having enough money at the end of the investment horizon to achieve goals	40
The income distributed by the fund declining	38
Mutual fund investments not performing as well as a bank CD	30
Mutual fund investments not performing as well as an index	27
Losing money within the first year	23
Respondents indicating....	
One concept	16
Two concepts	29
Three concepts	25
Four or more concepts	30

Number of respondents = 648

[a] multiple responses included

The majority of respondents included more than one of the eight risk concepts in their definitions of risk. To be specific, only 16 percent selected one concept, while 29 percent of respondents selected two concepts, 25 percent three, and 30 percent four or more. Altogether, 84 percent of respondents selected more than one concept.

The largest proportion of respondents, 57 percent, defined risk to include the chance of losing some of an original investment. Following in fairly close succession, 47 percent said mutual fund risk incorporated the notion of investments not keeping pace with inflation, 46 percent the idea of investments fluctuating in value, 40 percent not having enough money to achieve investment goals at the end of an investment horizon, and 38 percent the income distributed by a fund declining. Thirty percent or less of respondents mentioned any of the other three concepts (Figure 8).[23]

The majority of recent buyers consider risk within a long-term investment horizon. Over 60 percent of the participants had a risk time horizon of six years or more, and only 4 percent had a risk time horizon of less than one year. The estimated median horizon for all respondents was eight years (Figure 9).[24]

[22] Numerous studies have shown that questions relying on unaided recall (e.g., open-ended questions) result in an understatement of specific events. Cues or aids help respondents recall more accurately. Unaided recall should be followed by questions with additional clues. Hence, the Institute survey began the exercise of identifying shareholders' definition of mutual fund risk with an open-ended question, followed by a question listing various ways of defining risk from which respondents could choose. [See Donald S. Tull and Del I. Hawkins, *Marketing Research—Meaning, Measurement, and Method* (New York: Macmillan Publishing Company, 1976), pp. 258-259.]

[23] Several investors' definitions of risk were different from any of the eight concepts (e.g., susceptibility to stock market volatility and the uninsured nature of mutual funds).

[24] Shareholders' median time horizon for mutual fund risk could be even greater if those only owning funds through 401(k) plans were included.

Moreover, shareholder views on investment risk vary depending on their time horizon for assessing fund risks. In particular, only 5 percent of respondents with a risk time horizon of more than ten years expressed concern about short-term volatility, compared with 30 percent of respondents with a time horizon of less than one year (Figure 10).

Sources of Information on Risk

Respondents who evaluated fund risks before purchasing their most recent funds obtained information on fund risks from a variety of sources. Sixty percent of these shareholders indicated receiving mutual fund risk information from professional financial advisers, such as full-service brokers and financial planners. Thirty-four percent obtained risk information from friends and family, 32 percent from mutual fund prospectuses, and 31 percent from newspapers, magazines, or investment newsletters. Only 18 percent of those assessing fund risks used mutual fund rating and information services, and only 13 percent used fund company newsletters.[25]

This group of recent buyers also generally compares the risk of a prospective investment in a mutual fund to other types of investments. Over 70 percent of these respondents compared fund risks to those of similar funds, and 67 percent compared fund risks to those of other securities in their portfolios. A sizable percentage also compared fund risks with those of certificates of deposit, Treasury bills, or a stock or bond index (Figure 11).

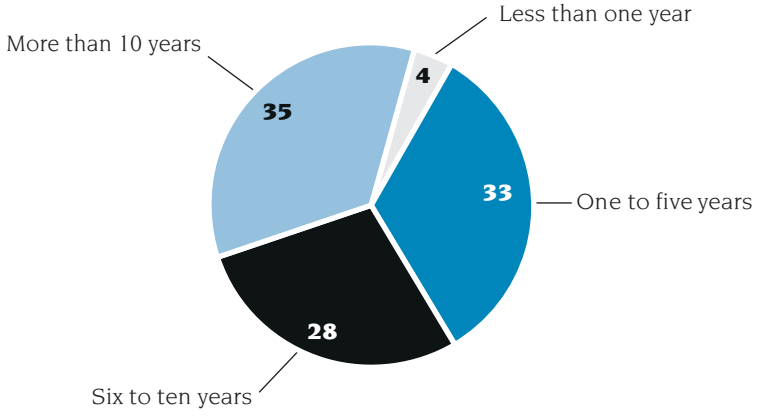
Use of Quantitative Risk Measures

The use of quantitative risk measures to assess mutual fund risks is not widespread among mutual fund

FIGURE 9

Time Horizon of Mutual Fund Risk

(percent of respondents)



Median = 8 years

Number of respondents = 645

FIGURE 10

Agreement with the Statement that "I Am Not Concerned About Short-term Fluctuations in My Long-term Investments."

(percent of respondents)

		Risk Time Horizon			
	All Respondents	Less than 1 Year	1 to 5 Years	6 to 10 Years	More than 10 Years
Agree	73	59	68	69	85
Neither agree nor disagree	11	11	10	13	10
Disagree	16	30	22	18	5
Number of respondents =	657	24	215	184	223

[25] Among those survey participants having reviewed risk in their most recent purchases, 59 percent obtained risk information through one-on-one discussions, usually with brokers or financial planners. Forty percent consulted written materials describing fund risks, and still fewer used graphs, tables, or rankings.

FIGURE 11

Source and Form of Information on Risk of Most Recent Stock or Bond Fund Purchase

(percent of respondents who reviewed or asked about risk of fund most recently purchased)

	All Respondents	Primary Mutual Fund Purchase Channel	
		Sales Force	Direct Market
Sources of Information on Mutual Fund Risks[a]			
Professional financial adviser such as a full-service broker, financial planner, bank representative, or insurance agent	60	83	24*
Friend, family member, or business associate	34	37	27
Mutual fund company prospectus	32	26	46*
Newspaper, investment newsletter, or magazine	31	20	52*
Rating service	18	12	28*
Mutual fund company newsletter	13	9	21*
Investment seminar	6	8	2*
On-line information service	4	2	7
Fund company telephone representative	2	2	3
Other	2	2	3
Format of Information on Mutual Fund Risks[a]			
Verbal description of the risks of the fund	59	75	34*
Written paragraph describing the risks of the fund	40	34	52*
A graph of the risks of the fund	33	31	36
Data displaying the risks of the fund	32	28	39
A quick summary, such as stars or rankings	26	19	37*
Compared Fund Risks[a]			
To other similar funds	71	67	77*
To other investments owned	67	63	77*
To a CD or Treasury bill	47	48	46
To a stock or bond index	43	39	50

* Sales force and direct market responses are statistically different at the 95 percent level.

[a] multiple responses included

Note: Number of respondents vary.

owners. Only 26 percent of respondents had used any such measures previously. The most frequently used measures were standard deviation of total return and bond fund duration, with 14 percent of respondents reporting using each. No more than 10 percent of respondent reported having used beta, Jensen's Alpha, or Sharpe's Ratio (Figure 12).

Characteristics of Shareholders Who Reported Using Quantitative Measures

Users of quantitative measures typically have more formal education, larger incomes, and more financial assets than nonusers. For example, the median household financial assets of users was $116,800, compared with $72,500 for nonusers.[26] Similarly, 75 percent of the user group but only 56 percent of the nonuser group had at least a college degree (Figure 13). In addition, users of quantitative measures generally had a higher tolerance for investment risk and were likely to describe themselves as making investment decisions without assistance and as comparing funds before making a purchase decision. Moreover, a greater proportion of the users than nonusers were comfortable with the risk of their mutual fund portfolios and said they look at mutual fund declines as an investment opportunity (Figure 14).

[26] These medians are based on category data.

FIGURE 12

Recent Buyers' Previous Use of Quantitative Measurements of Mutual Fund Risks[a]

(percent of respondents)

Any quantitative risk measurement	**26**
Standard deviation of total return	14
Bond fund duration	14
Beta	10
Jensen's Alpha	4
Sharpe's Ratio	4

Number of respondents = 657

[a] multiple responses included

FIGURE 13

Selected Demographic and Financial Characteristics of Recent Buyers by Use of Quantitative Measures

	Users	Nonusers
Median		
Age	44 years	44 years
Household income	$68,600	$61,100
Household financial assets[a]	$116,800	$72,500*
Percent		
Male	64	55
Completed college or postgraduate	75	56*
Employed full- or part-time[b]	82	79
Retired from lifetime occupation	17	19

* User and nonuser responses are statistically different at the 95 percent level.

[a] excludes primary residence and assets in employer-sponsored retirement plans

[b] includes self-employed

Note: Number of respondents vary.

FIGURE 14

Views of Recent Buyers by Use of Quantitative Risk Measures

(percent of respondents)

	Users	Nonusers
Willing to take:		
Substantial financial risk in the hope of making a substantial monetary gain	12	7
Above-average financial risk in the hope of making an above-average monetary gain	45	34*
Average financial risk but only expect to make an average monetary gain	34	40
Below-average financial risk but understand I may make a below-average monetary gain	5	13*
No financial risk	3	6
Strongly agree:[a]		
Investing in stock and bond mutual funds involves accepting some degree of risk.	66	60
I can make my own mutual fund investment decisions without advice from professional financial advisers.	31	17*
I shop around to compare mutual funds before making a fund purchase decision.	57	31*
I am comfortable that the overall risk level of my.mutual fund portfolio is right for me.	58	43*
When my mutual funds decline in value, I view this as an opportunity to buy more shares.	28	17*

*User and nonuser responses are statistically different at the 95 percent level.

[a]multiple responses included

Note: Number of respondents vary.

Users of quantitative measures tend to own more mutual funds and have a higher percentage of financial assets invested in funds than do nonusers. For example, the typical shareholder with experience with quantitative measures owned four mutual funds and had mutual fund holdings of $48,800, equal to 42 percent of household financial assets. The typical respondent with no prior use of quantitative measures owned three funds and had median mutual fund holdings of $20,000, equal to 28 percent of household financial assets. In addition, the median length of fund ownership of mutual funds for users was eight years, exceeding the median of five years for nonusers. The mutual fund portfolios of quantitative measure users also tend to have greater diversity than those of nonusers. For example, more users than nonusers owned all three types of the basic funds—equity, bond and income, and money market. Similarly, a greater percentage of users had mutual funds from more than one company, owned several mutual funds with the same investment goal, and owned at least two funds with different investment goals (Figure 15).

Use Made of Quantitative Measures

To determine how they used quantitative risk measures, those participants having prior experience were asked to identify their own applications from a list of five possibilities. The list included gauging the risk of a fund, estimating future returns, comparing fund performance with that of a benchmark index, determining interest rate risk, and assessing currency risk. The question was limited to those who had used standard deviation, beta, duration, or any combination of these measures.

FIGURE 15

Mutual Fund Ownership Characteristics of Recent Buyers by Use of Quantitative Measures

	Users	Nonusers
Median		
Household financial assets held in mutual fund	$48,800	$20,000*
Number of funds owned	4	3*
Length of fund ownership	8 years	5 years*
Percent of financial assets held in funds	42%	28%
Time horizon for mutual fund risk	8 years	8 years
Percent		
Primary financial goal is saving for retirement	73	73
Primary investment strategy is achieving long-term growth	72	61*
Mutual funds owned:[a]		
Stock	89	75*
Bond	75	63*
Money market	54	33*
Primary mutual fund channel:		
Sales force	53	60
Direct market[b]	47	36
Other (e.g., accountant or lawyer)	0	4
Have:[a]		
Funds from more than one fund company	74	53*
More than one fund with the same investment goal	73	58*
At least two funds with different investment goals	55	40*
Assets in nonfund investments	67	57

*User and nonuser responses are statistically different at the 95 percent level.
[a] multiple responses included
[b] includes purchasing directly from a fund company or a discount broker

Note: *Number of respondents vary.*

FIGURE 16

Use Made of Quantitative Measures by Type of Quantitative Measure Used[a]

(percent of respondents who have used each quantitative method)

	Standard Deviation	Beta	Duration
To gauge the risk of investing in a fund	57	70	48
To estimate a fund's future returns	44	23	45
To relate a fund's performance to a benchmark index	41	35	16
To determine a fund's sensitivity to interest rates	18	8	35
To assess a fund's currency risk	14	8	16
Number of respondents =	94	63	94

[a] multiple responses included

The most common response was the use of each measure to gauge the risk of a fund. Such a response is less informative about the level of shareholders' understanding of quantitative measures than are responses relating to more specific uses. For example, just 35 percent of duration users reported using it to measure interest rate sensitivity. Only 35 percent of those who had used beta in the past indicated they utilized it in comparing fund performance with that of a benchmark index. Meanwhile, over 40 percent of those having previous experience with standard deviation applied it to comparisons with benchmark indexes. In addition, some users of standard deviation, beta, and duration indicated using these measures to assess currency risk, a possible but rather indirect application. Many shareholders with experience using quantitative measures reported using them to estimate future performance. Forty-five percent of respondents who have used duration, 44 percent of those who have used standard deviation, and 23 percent of those who have used beta indicated that they used these measures to estimate a fund's future returns. Such responses suggest some users may not be fully familiar with all applications of the measures (Figure 16).

Chapter 3

Assessment of Risk Disclosure Methods

Overview of Assessment Techniques

Responding shareholders were asked to evaluate the risk disclosure methods from two perspectives, the first being an individual assessment of each method and the second being a joint assessment of the five methods.

Individual Assessment

At the beginning of each method's individual assessment, respondents were presented with an exhibit explaining that method and providing examples of its application. After reviewing the exhibit, respondents were asked to indicate their initial impressions of the method and to note its strengths and weaknesses. The purpose of these open-ended questions was to focus respondents' thinking on the attributes of the particular method they were evaluating.

After completing the open-ended questions, respondents were asked to rate each disclosure method on five attributes using a five-point semantic differential scale. This type of scale requires respondents to rate an object, in this instance a disclosure method, on a rating scale bounded at each end with bipolar adjectives or phrases. For example, one end of a semantic differential scale could be "today is hot," the other, "today is cold." This scaling technique is appropriate when the mean (or median) values of one object's attributes are to be compared with the mean values of another, a procedure called profile analysis. Profile analysis isolates the strong and weak attributes of several similar objects, which in this exercise are the five risk disclosure methods.[27]

Joint Assessment of the Five Methods

Responding shareholders were asked to assume that they were to assess the risks of a particular mutual fund. Based on what they had learned about the measures during the survey interview and assuming each measure was available, respondents were instructed to sort the five risk disclosure methods into three separate groups: those they felt very confident using, somewhat confident using, and not at all confident using. Next, shareholders who were very confident using more than one risk disclosure method were asked to indicate the method they most preferred.[28] The decision to derive shareholders' preferred method from those they were very confident using is based on the premise that individuals cannot prefer something that they are not completely confident using. An evaluation of shareholders' preferences that

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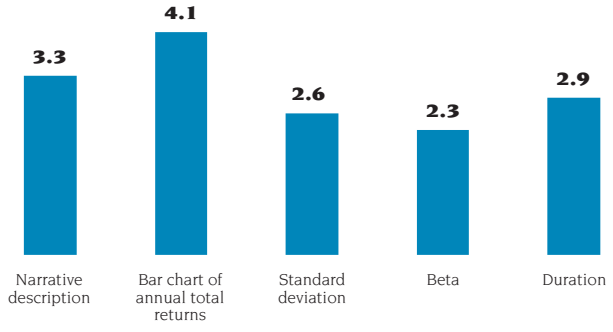
[27] See Donald S. Tull and Del I. Hawkins, *Marketing Research—Meaning, Measurement, and Method* (New York: Macmillan Publishing Company, 1976), p. 294.

[28] Respondents very confident with only one method were assumed to prefer that method. Respondents not very confident using any of the measures were excluded from indicating a preferred method.

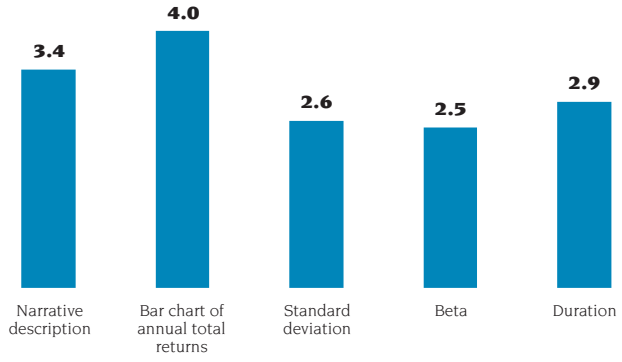
FIGURE 17

Recent Buyers' Assessment of Risk Disclosure Methods

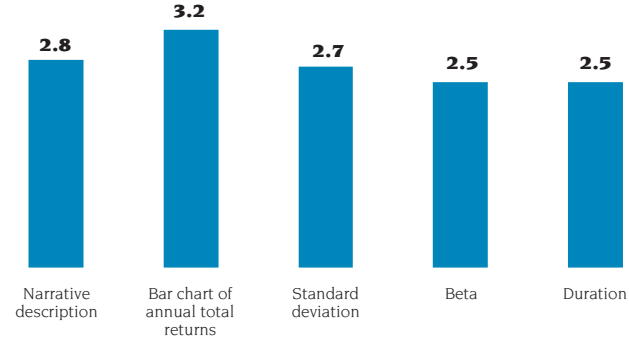
Simplifies Risk Evaluation[a]



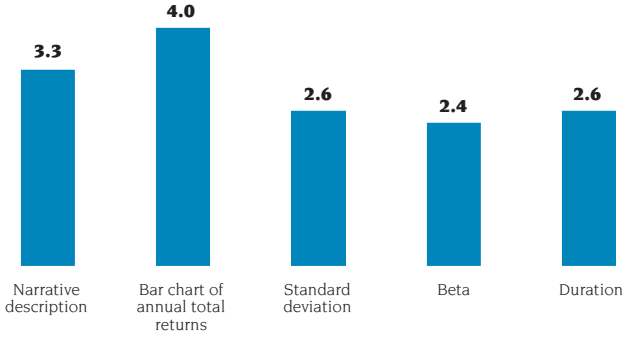
Has the Right Amount of Technical Information[d]



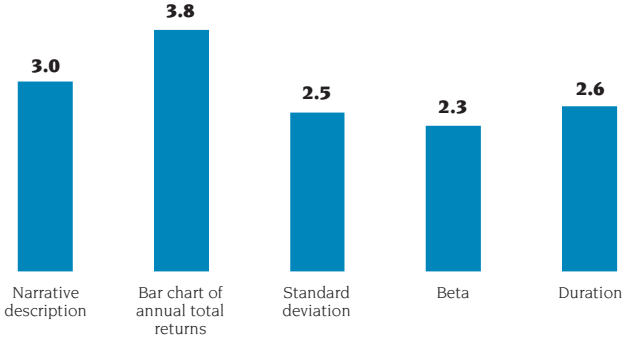
Is Dependable Across All Market Conditions[b]



Is Suited for Investors Like the Respondent[e]



Is Something Respondent Could Use Right Away[c]



[a] mean score of 5 equals makes evaluation uncomplicated, 1 equals makes evaluation complicated

[b] mean score of 5 equals dependable across all market conditions, 1 equals not at all dependable across all market conditions

[c] mean score of 5 equals something that could be used right away, 1 equals something that could be used after further study

[d] mean score of 5 equals has the right amount of technical information, 1 equals too technical

[e] mean score of 5 equals suited for investors like respondent, 1 equals not suited for investors like the respondent

Note: Number of respondents vary.

included methods they are not confident or only somewhat confident using would have questionable validity.[29]

Results of the Individual Assessment of Each Method

Survey respondents were asked to indicate on a five-point scale the degree to which a given risk disclosure method 1) simplifies the evaluation of mutual fund risks, 2) is dependable across all market conditions, 3) can be used immediately without further study, 4) has the right amount of technical information, and 5) is suitable for investors like the respondents. The mean value, or score, was computed for each of the five attributes (Figure 17).

Simplifying Evaluation of Mutual Fund Risks

Of all five risk disclosure methods, respondents rated the bar chart of annual total returns as best at simplifying the evaluation of mutual fund risk. On a scale of 1 to 5, where 1 indicates that a measure complicates disclosure and 5 indicates that a measure simplifies it, the bar chart of annual returns received a mean score of 4.1. The narrative description followed with a mean score of 3.3. The mean scores for each of the quantitative risk measures were below the midpoint of the scale, with duration at 2.9, standard deviation at 2.6, and beta at 2.3. The differences between all mean scores are statistically significant at the 95 percent level.

Dependability Across Market Conditions

The bar chart of annual returns received the highest mean score with regard to dependability across market conditions, garnering 3.2 on a scale where 1 equals not at all dependable and 5 equals dependable, a score statistically different from the mean scores of the other four methods. The narrative description followed with a mean score of 2.8, which is statistically different from the mean scores recorded for duration and beta. Quantitative risk measures received lower mean scores than the nonquantitative measures: 2.7 for standard deviation, 2.5 for beta, and 2.5 for duration.

Ability to Use Without Further Study

On a scale of 1 to 5, where 1 means that the method could only be used after further study and 5 means that the risk disclosure method is something they could use right away, the bar chart received a mean score of 3.8 and the narrative description a mean score of 3.0, both of which are statistically different from the mean scores recorded for the three quantitative measures. The three quantitative measure received mean scores below the midpoint of the scale: duration received a mean score of 2.6, standard deviation a score of 2.5, and beta a score of 2.3.

Amount of Technical Information

Of all five risk disclosure methods, the bar chart of annual total returns scored the highest on the issue of having the right amount of technical information. On a scale of 1 to 5, where 1 indicates that a measure is too technical and 5 indicates that a measure has the right amount of technical information, the bar chart of annual returns received a mean score of 4.0. The narrative description followed with a mean score of 3.4. The mean scores for each of the quantitative risk measures were below the midpoint of the scale, with duration at 2.9, standard deviation at 2.6, and beta at 2.5. With the exception of the difference in the mean scores for beta and duration, the differences between all mean scores are statistically significant.

Suitability for Individual Investors

The bar chart of annual returns received the highest mean score with regard to suitability for investors like the survey respondents, achieving a score of 4.0 on a scale where 1 equals not suited for investors like themselves and 5 equals suited for investors like themselves. The narrative description followed with a mean score of 3.3. Standard deviation and duration each received a mean score of 2.6 and beta a score of 2.4. With the exception of the difference in the mean scores for standard deviation and duration, the differences between all mean scores are statistically significant.

Joint Assessment of the Five Methods

Sorting the Methods According to Confidence in Using Them to Assess Fund Risks

Respondents were instructed to sort the five risk disclosure methods into three separate groups: those they felt very confident using, somewhat confident using, and not at all confident using. Fifty-one percent of respondents described themselves as very confident using the narrative description to assess the risks of a single fund and 49 percent were very confident using the bar chart of annual returns. Only 28 percent were very confident using standard deviation to assess the risks of a single fund. Fewer respondents expressed such confidence about using beta or duration to examine a single fund's risks—22 percent and 12 percent, respectively.

[29] The Institute survey also analyzed shareholder use of the five risk disclosure methods in comparing the risks of several similar mutual funds. Because the results of both exercises were virtually identical, this analysis primarily focuses on the results relating to assessing the risks of a single fund. The figures in Appendix C present the data for comparing the risks of several similar funds.

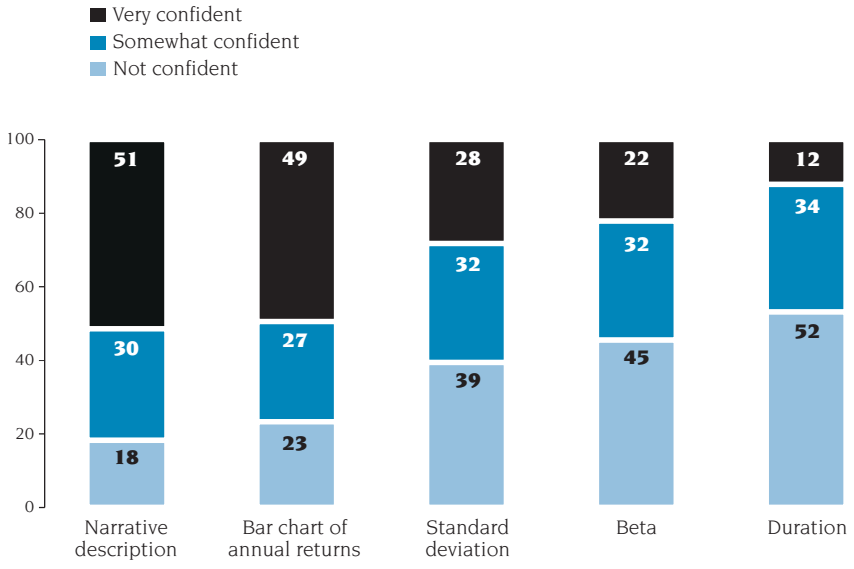
Fifty-two percent of respondents indicated they were not at all confident using duration to assess the risks of a single fund, 45 percent said the same for beta, and 39 percent the same for standard deviation. In contrast, only 18 percent of respondents said they were not at all confident using the narrative description to assess a single fund's risks and only 23 percent were not at all confident using the bar chart of annual total returns (Figure 18).

Those shareholders who had used quantitative measures in the past did not uniformly express a high degree of confidence about using such measures again. For example, of those having used standard deviation, 44 percent were very confident about utilizing it in the future, whereas 23 percent were not confident about using it at all. Forty-seven percent of respondents who cited experience with beta were very confident about

FIGURE 18

Recent Buyers' Confidence Using Risk Disclosure Methods to Assess the Risks of a Single Fund

(percent of respondents)



Number of respondents = 650

Note: A total of 103 respondents were only somewhat or not at all confident with each of the five measures.

FIGURE 19

Degree of Confidence in Using Quantitative Measures to Assess the Risks of a Single Fund, by Previous Use of Measures

(percent of respondents)

	Users	Nonusers
Standard Deviation		
Very confident	44	25
Somewhat confident	31	32
Not confident	23	42
Number of respondents =	94	555
Beta		
Very confident	47	20
Somewhat confident	41	31
Not confident	13	49
Number of respondents =	62	588
Duration		
Very confident	28	10
Somewhat confident	40	33
Not confident	30	56
Number of respondents =	95	554

FIGURE 20

Characteristics of Recent Buyers Using Quantitative Measures to Assess the Risks of a Single Fund

	Standard Deviation		Beta		Duration	
	All Users	Very Confident Using Again[a]	All Users	Very Confident Using Again[a]	All Users	Very Confident Using Again[a]
Median						
Time horizon for mutual fund risk	8 years	7 years	10 years	9 years	8 years	6 years
Percent						
Primary financial goal is saving for retirement	71	73	80	85	67	82
Primary investment strategy is achieving long-term growth	69	74	82	84	73	84

[a] small sample size

Note: Number of respondents vary.

using it again to assess the risks of a single fund but 54 percent were not very confident. Even more striking, 28 percent of duration users were very confident in using duration again and 70 percent were not very confident.

Following only a brief exposure to quantitative measures, a significant minority of mutual fund shareholders without previous experience using such measures expressed confidence in using them in the future. For example, 25 percent of respondents who had never used standard deviation and 20 percent who had never used beta felt very confident about using these measures after reviewing the one-page descriptions. Despite this expressed level of confidence, it is open to question whether so many respondents could actually have gained sufficient insight from such limited exposure to use quantitative methods successfully in making investment decisions (Figure 19).

Most of those respondents who reported using quantitative measures when deciding to purchase a fund identified themselves as long-term investors saving for retirement. The same is true even for those users of quantitative measures who reported they were very confident in using the measures. It is noteworthy that such measures are not especially relevant to a long-term investment time horizon. Standard deviation and beta are typically used to gauge short-term volatility—either around the mean of monthly or quarterly returns or relative to the monthly or quarterly returns of a benchmark index. In this context, they would not necessarily be appropriate for making long-term investment decisions. For example, the standard deviation of monthly returns would generally overstate volatility returns over a longer period of time (Figure 20).

Preferences Among Risk Disclosure Methods

Of survey participants who were very confident using more than one risk disclosure method, 38 percent said they most preferred the bar chart of annual total returns as a method of disclosing mutual fund risks, 31 percent preferred the narrative description, 15 percent preferred standard deviation, 13 percent preferred beta, and 2 percent preferred duration (Figure 21).

Furthermore, many shareholders who have used quantitative risk measures expressed a preference for the bar chart and the narrative description. For example, 38 percent of quantitative measure users preferred the bar chart of annual returns and 23 percent preferred the narrative description for assessing the risks of a single fund. Only 18 percent of users preferred standard deviation, 17 percent beta, and 4 percent duration. [30]

[30] Excludes 18 respondents who had used quantitative measures but indicated they were not very confident using any of the five risk disclosure methods to assess a fund's risks.

FIGURE 21

Recent Buyers' Preferred Risk Disclosure Method for Identifying the Risks of a Single Mutual Fund

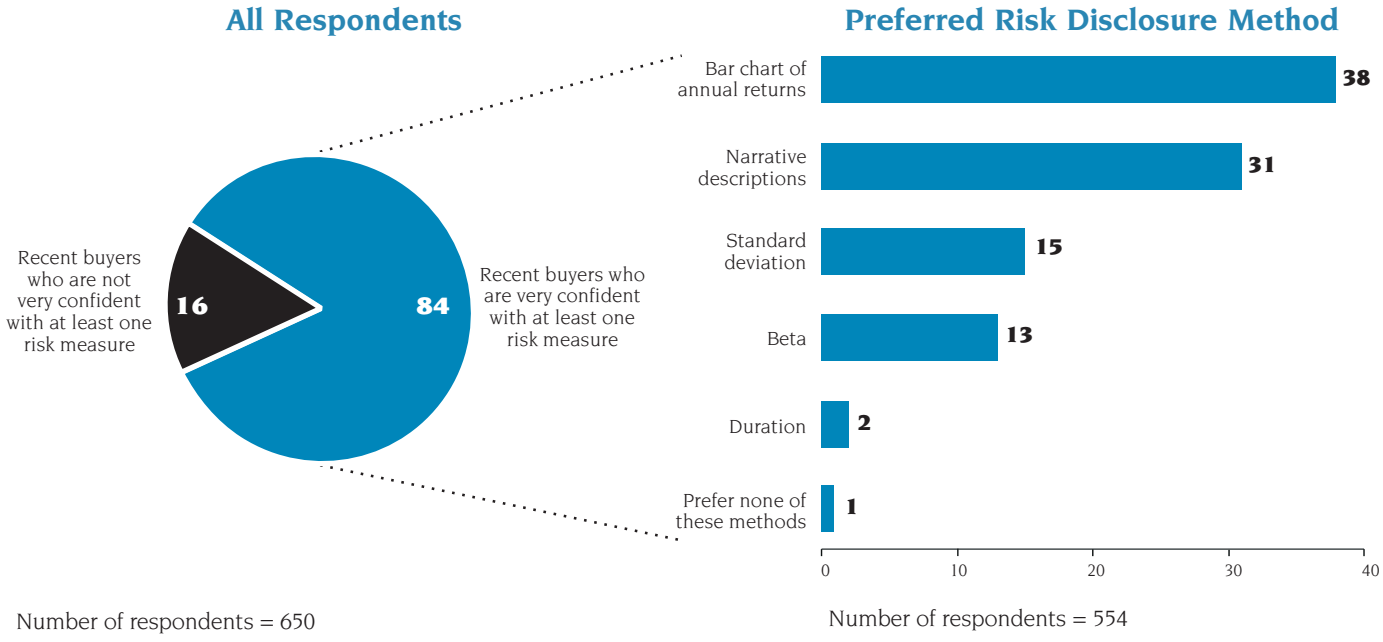


FIGURE 22

Preferences for Measuring the Risks of a Single Fund Among Recent Buyers Who Have Used Quantitative Measures

(percent of respondents very confident with at least one measure)

		Recent Buyers Who Have Used...		
	All Quantitative Measure Users	Standard Deviation	Beta	Duration
Bar chart of annual returns	38	34	37	41
Narrative description	23	25	23	18
Standard deviation	18	20	11	16
Beta	17	16	25	16
Duration	4	4	3	7
Prefer none of these methods	1	2	0	2
Number of respondents =	154	89	56	84

Looking at the data by type of quantitative measure used, 34 percent of shareholders who reported using standard deviation preferred the bar chart of annual returns to assess the risks of a single fund and 25 percent preferred the narrative description for this purpose. Only 20 percent of respondents who cited using standard deviation selected standard deviation as their preferred risk measure for identifying the risks of a single fund.[31] Only 7 percent of respondents who used duration picked duration as their preferred measure for evaluating a fund's risks (Figure 22).[32]

[31] Excludes 6 respondents who had used standard deviation but indicated they were not very confident using any of the five risk disclosure methods to assess a fund's risks.

[32] Excludes 11 respondents who had used duration but indicated they were not very confident using any of the five risk disclosure methods to assess a fund's risks.

Appendix A

Exhibits Used in the Research

Appendix B

Characteristics of Responding Shareholders

Demographic and Financial Characteristics

The recent stock and bond fund buyers who participated in the study of risk disclosure methods have demographic characteristics similar to those of shareholders nationwide. Almost 60 percent of financial decisionmakers in the study are male, 73 percent are married, 80 percent are employed, and 61 percent have a bachelor's degree. The financial characteristics of recent buyers of long-term funds are somewhat different from those of shareholders nationwide, however. Specifically, recent buyers are more affluent than the typical shareholder. The household income and household financial assets of recent buyers tend to be greater than those of all shareholders—$63,300 and $81,800, compared with $60,000 and $50,000 (Figure 23).

The shareholders who participated in the study are typically investors with long-term financial goals and long-term investment strategies. Seventy-three percent of respondents listed financing retirement as the primary purpose for their mutual fund investments. Another 11 percent pointed to paying for education. To reach their financial goals, 64 percent of shareholders said they focus on achieving long-term growth from mutual fund investments. Only 7 percent indicated they are trying to obtain a high rate of return over the short term. Sixteen percent of respondents reported a primary investment strategy of obtaining a

FIGURE 23

Demographic Characteristics of Recent Buyers of Stock and Bond Funds and All Shareholders[a]

	Recent Buyers	All Shareholders
Median		
Age	44 years	44 years
Household income	$63,300	$60,000
Household financial assets[b]	$81,800	$50,000
Percent		
Male	58%	57%
Married	73	71
Completed college or postgraduate	61	58
Completed graduate school	21	20
Employed full- or part-time	80	80
Retired from lifetime occupation	19	18

[a] based on telephone interviews with 1,165 mutual fund shareholders conducted in July and August 1995

[b] excludes primary residence and assets in employer-sponsored retirement plans

Note: Number of respondents vary.

steady stream of income from investment holdings, and 12 percent cited preserving an original investment over the long term (Figure 24).

Mutual Fund Ownership Characteristics

The survey respondents are typically experienced, active shareholders with diversified mutual fund portfolios. The median length of fund ownership is six years, compared with a median of nine years for all shareholders. At the time of the survey, 59 percent of respondents owned mutual funds from more than one fund company, 62 percent owned more than one mutual fund with the same investment goal, and 59 percent allocated assets to investments other than mutual funds.

The median amount invested in mutual funds for survey participants was $23,600, or 29 percent of median household financial assets. For all shareholders, not just those in the survey, the median amount invested in mutual funds is $18,000, equal to 36 percent of median household financial assets.[33]

The median number of mutual funds owned by survey respondents is three, the same median as the entire shareholder population. Survey respondents' ownership of stock mutual funds is similar to shareholders nationwide, but more respondents owned bond funds and fewer owned money market funds than all U.S. shareholders. The recent buyers who participated in the survey primarily purchase mutual funds from either a full-service broker or directly from a fund company. Nationally, the majority of shareholders primarily purchase mutual funds from these two channels (Figure 25).

FIGURE 24

Financial Goals and Investment Strategies for Mutual Fund Holdings

(percent of respondents)

Primary Financial Goal[a]	
Finance retirement	73
Pay for education	11
Provide income now	6
Have no specific purpose	4
Buy a home	3
Other	5
Number of respondents =	657
Primary Investment Strategy	
Achieve long-term growth	64
Provide a steady income	16
Preserve original investment over long term	12
Produce high rate of return over short term	7
Have no short-term fluctuations	1
Number of respondents =	653

[a]multiple responses included

Consistent with the goal of using their mutual fund portfolios to finance their retirement, 93 percent of respondents agreed that their mutual fund investments are savings for the long term. Fifty-four percent agreed that a drop in the price per share of a fund they own represents an opportunity to purchase more shares of that fund. Nevertheless, for most survey participants, buying a mutual fund is not an impulse purchase. Sixty-eight percent agreed with the statement that they compare mutual funds before making a purchase decision. Often shareholders need investment advice from a financial professional as part of the fund purchase process; 47 percent of respondents said they can not make fund purchase decisions without advice from investment professionals. Although a sizable share of respondents wants assistance from financial advisers, only 36 percent thought mutual funds are too complicated to understand (Figure 26).

[33] The median amount invested in mutual funds and the median amount in household financial assets are both based on category data. The percent of household financial assets invested in mutual funds is the proportion derived from dividing the median amount in mutual funds into median household financial assets.

FIGURE 25

Mutual Fund Ownership Characteristics of Responding Recent Buyers Compared with All Shareholders

	Recent Buyers	All Shareholders
Median per Household		
Financial assets held in mutual funds	$23,600	$18,000
Number of funds owned	3	3
Percent of financial assets held in funds	29%	36%
Length of fund ownership	6 years	9 years
Percent		
Mutual funds owned:[a]		
Stock mutual funds	78	73
Bond mutual funds	66	49
Money market mutual funds	39	52
Primary mutual fund channel:		
Full-service broker	31	30
Discount broker	8	8
Insurance agent	10	12
Bank representative	6	10
Financial planner	10	14
Directly from fund company	31	21
Other (e.g., accountant or lawyer)	3	6
Have:[a]		
Mutual funds from more than one company	59	NA
More than one mutual fund with the same investment goal	62	NA
At least two mutual funds with different investment goals	44	NA
Assets in investments other than mutual funds	59	NA

[a] multiple responses included

NA=Not asked

Note: Number of respondents vary.

FIGURE 26

Opinions on Mutual Fund Investing

(percent of respondents)

	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	Number of Respondents
I view my mutual fund investments as savings for the long term.	70	23	4	2	2	656
I shop around to compare mutual funds before making a fund purchase decision.	38	30	11	11	10	654
When my mutual funds decline in value, I view this as an opportunity to buy more shares.	20	34	23	14	9	652
I can make my own mutual fund investment decisions without any advice from professional financial advisers.	21	22	11	23	24	654
Most mutual fund investments are too complicated to understand.	8	28	15	29	19	657

Appendix C

Data on Use of Disclosure Methods to Compare Fund Risks

The final assessment of the five disclosure methods focused on comparing the risks of two or more funds, as opposed to gauging the risks of a single fund. For this purpose, shareholders prefer to use the bar chart and the narrative description. Fifty-one percent of respondents described themselves as very confident using the bar chart of annual returns to compare the risks of several similar funds and 46 percent as very confident using the narrative description. Only 33 percent were very confident using standard deviation to compare the risks of several funds. Even fewer were very confident about using duration or beta to compare fund risks, 13 percent and 26 percent, respectively (Figure 27).

Even respondents who had used standard deviation, beta, and duration before the survey were not overwhelmingly confident about using these measures to compare fund risks. For example, 51 percent of respondents who reported using standard deviation did not feel very confident about using it in the future to compare funds risks. Seventy-one percent of respondents who cited having previous experience with duration said they were not very confident about using this measurement again to compare fund risks (Figure 28).

Altogether, 83 percent of respondents were very confident using at least one of the five risk disclosure methods to compare fund risks. [34] Of these respondents, 42 percent

FIGURE 27

Recent Buyers' Confidence Using Risk Disclosure Methods to Compare the Risks of Several Similar Funds

(percent of respondents)

	Very Confident	Somewhat Confident	Not Confident
Narrative description	46	33	20
Bar chart of annual returns	51	27	21
Standard deviation	33	28	38
Beta	26	29	44
Duration	13	31	54

Number of respondents = 547

Note: A *total of* 110 *respondents were only somewhat or not at all confident with each of the five measures.*

[34] Respondents very confident with only one method were assumed to prefer that method. Respondents not very confident using any of the measures were excluded from indicating a preferred method.

preferred the bar chart of annual total returns and 25 percent preferred the narrative description. Only 15 percent of these respondents preferred standard deviation to compare fund risks, 15 percent preferred beta, and 2 percent preferred duration (Figure 29).

Even shareholders who have used quantitative risk measures prefer the bar chart and the narrative description for comparing fund risks. For example, 44 percent of shareholders who reported using quantitative measures preferred the bar chart of annual returns and 22 percent preferred the narrative description for this purpose (Figure 30).[35]

FIGURE 28

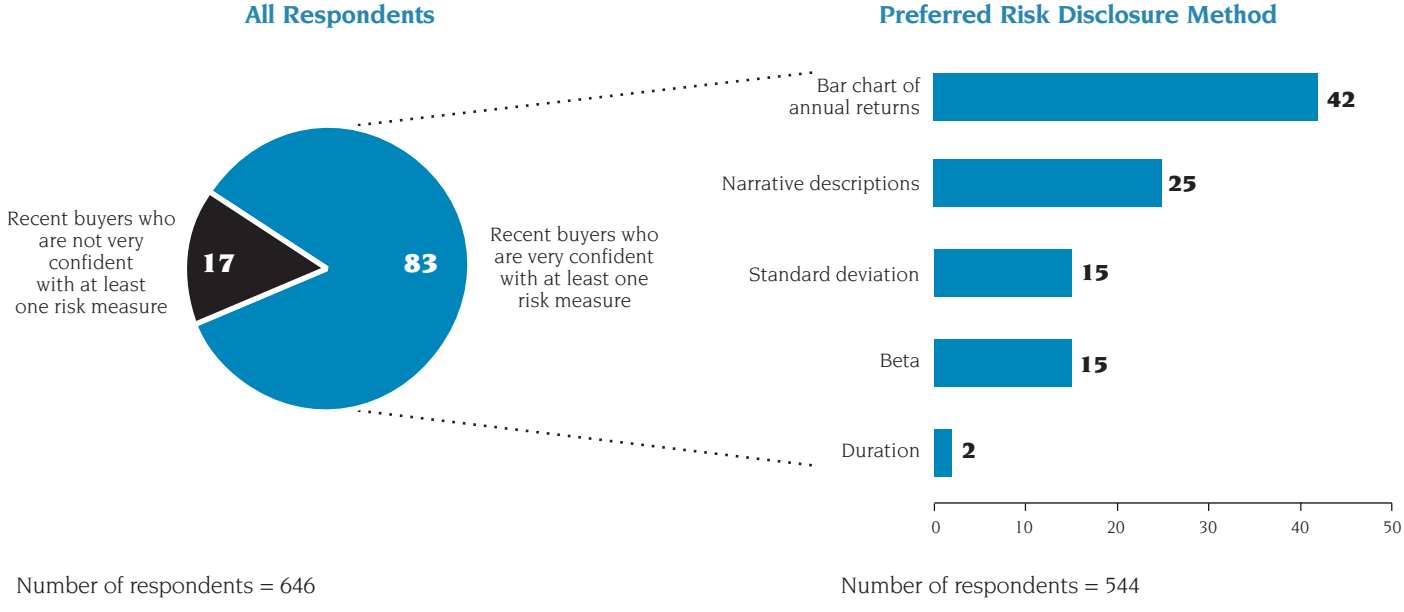
Degree of Confidence Using Quantitative Measures to Compare the Risks of Several Similar Funds, by Previous Use of Measures

(percent of respondents)

	Users	Nonusers
Standard Deviation		
Very confident	49	30
Somewhat confident	28	29
Not confident	23	40
Number of respondents =	92	553
Beta		
Very confident	56	23
Somewhat confident	28	29
Not confident	14	47
Number of respondents =	62	584
Duration		
Very confident	27	10
Somewhat confident	41	30
Not confident	30	58
Number of respondents =	94	552

FIGURE 29

Recent Buyers' Preferred Risk Disclosure Method for Comparing the Risks of Several Similar Mutual Funds



[35] Excludes 19 respondents who had used quantitative measures but indicated they were not very confident using any of the five risk disclosure methods to compare fund risks.

FIGURE 30

Preferences for Comparing the Risks of Several Similar Funds Among Recent Buyers Who Have Used Quantitative Measures

(percent of respondents very confident with at least one measure)

		Recent Buyers Who Have Used...		
	All Quantitative Measure Users	Standard Deviation	Beta	Duration
Bar chart of annual returns	44	38	50	48
Narrative description	22	27	15	21
Standard deviation	14	13	7	12
Beta	17	18	26	15
Duration	1	1	1	3
Prefer none of these methods	1	2	0	2
Number of respondents =	152	87	54	84

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