A Brief Summary of the Major Investment Issues Facing 401(k) Plan Trustees

Authors
Richard D. Glass
Stan Marshall

Published as Chapter 12 of
401(k) Plans: A Comprehensive Planning and Compliance Guide, Second Edition
Michael E. Lloyd, Bruce J. McNeil,
and Lowell M. Smith, Jr.
John Wiley and Sons, Inc.

A Brief Summary of the Major Investment Issues Facing 401(k) Plan Trustees

Richard D. Glass and Stan Marshall

As a plan sponsor what should guide me in selecting the investment options for our 401(k) plan?
Options should be selected that will enable the participants to create powerful portfolios.

What is a powerful portfolio?
There are two types of powerful portfolios. One is a portfolio that captures what is currently going on in the capital markets. If both U.S. small-cap stocks and international large-cap stocks are in vogue, plan participants must be able to change the weighting of the funds in their portfolios to emphasize these asset subclasses. Plan participants who cannot do this cannot have powerful portfolios.

Alternatively, a powerful portfolio can also be a relatively static portfolio that will meet the long-term needs of a plan participant. What is important here is that the participant can structure the portfolio to include all the appropriate asset classes and can diversify adequately across them. For example, if the only fixed-income fund that is offered by a plan is a stable asset fund, such as a pooled GIC fund, then the portfolio cannot always be powerful because the participants are not able to get significant capital appreciation from the fixed-income portions of their portfolios in periods of falling interest rates.

Is a portfolio powerful if it can fulfill a participant's long-term investment needs?
Yes. There is no single portfolio that will meet the needs of all or perhaps even most of the participants. What is important is that the trustees provide an adequate selection of investment options so that even the plan's most sophisticated participants can feel satisfied with their portfolios and not worry that the plan's investment options are preventing them from achieving retirement security.

Is market timing, or what others call tactical asset allocation, recommended?
There are two questions that must be kept separate. The first is: Should participants be doing market timing? (We don't believe in market timing, but that is not the point.) The second is: Should participants be able to attempt market timing if they so wish?

Participants do have a right to market time if they so desire. After all, the 401(k) account is probably a major source of their retirement security, if not the only source. A plan sponsor cannot tell employees that they are responsible for their own financial security while preventing them from investing any way they like. After all, is there any reason to assume that the average 401(k) plan manager or mutual fund salesperson knows more about investing than a well-informed participant?

Telling participants how to invest is definitely giving them advice. No plan sponsor wants to put itself in that position. Is restricting participants in how they invest, such as preventing them from trading daily, or not offering an important and well-recognized subclass as an investment option, also giving advice?

How many and what type of investment options are necessary to construct powerful portfolios?
Seven is the minimum number of options. The asset classes and subclasses which must be represented are:

1. money market funds;
2. intermediate-term bonds;
3. long-term bonds;
4. U.S. large-cap equities;
5. U.S. small to midsize stocks;
6. international large-cap stocks;
7. developing markets equities.

Does the average participant know how to use these seven basic options effectively? In fact, is a plan sponsor running the risk of confusing most participants by offering three fixed-income funds and four stock funds? Why not offer just four funds--stable asset, S&P 500 index, small-cap stock, and foreign stock?
Having seven fund options will confuse the participants who do not understand the basics of investing (there will be a discussion of investment education a little later). On the other hand, knowledgeable investors might feel that seven options are not enough. They may want to have individually directed accounts (IDAs) so that they can pick whatever investments they want, including limited partnerships, gold, and individual stocks and bonds.

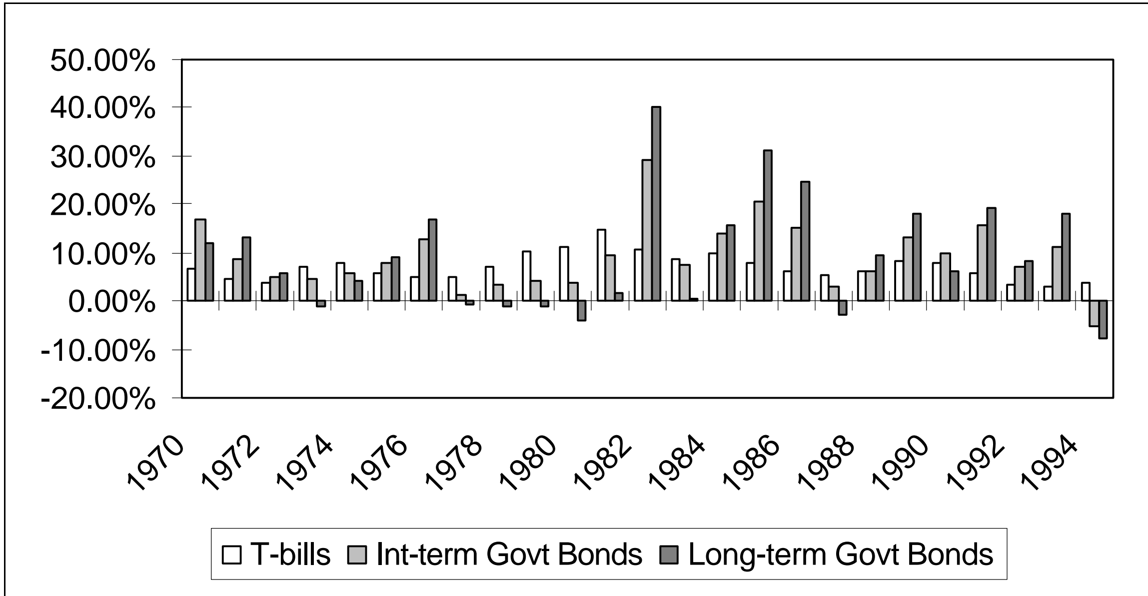
Therefore, when a plan offers just four or five investment options, are the participants with investment savvy being short-changed, while the participants who know little if anything about investing are probably just as confused with four or five investment options as they would be with fifteen?
Yes. Before going further, perhaps it would be best to explore in greater depth the issues that have already been raised. It is important to remember that 401(k) plans are the only qualified retirement plans that many workers have. For others, the 401(k) plan is a necessary supplement to their defined benefit plan. In either case, if participants don't have the opportunity to get the biggest bang for their buck, i.e., create powerful portfolios, they are being short-changed. Having investment options that can capture market movements and knowing how to use them are two different issues.

One of the appeals of a 401(k) plan to trustees is that the responsibility for deciding how to invest each participant's account can be delegated to that participant. Theoretically this is a great idea. Each participant can create an asset allocation that meets his or her needs. The asset allocation (ratio of stock to fixed-income to money market funds) for a thirty-five year old should be quite different from that of a sixty year old. In addition, two participants could have the same asset class weightings but quite different tilts. One could emphasize large-cap stocks and intermediate-term bonds while the other could emphasize long-term bonds and small-cap stocks. As long as the plan trustees provide a wide selection of options, an educated participant has a golden opportunity to achieve financial independence while, in the words of Frank Sinatra, "doing it my way."

Exhibits 1 through 4 show why trustees must provide a wide selection of funds from which to choose. Exhibit 1 shows the annual returns of T-bills, intermediate-term, and long-term bonds while Exhibit 2 shows the growth of $1000 invested annually into each of these asset classes. Exhibits 3 and 4 show annual returns and the growth of annual investments of $1000 respectively of the S&P 500, small-cap stocks, and international stocks (EAFE).

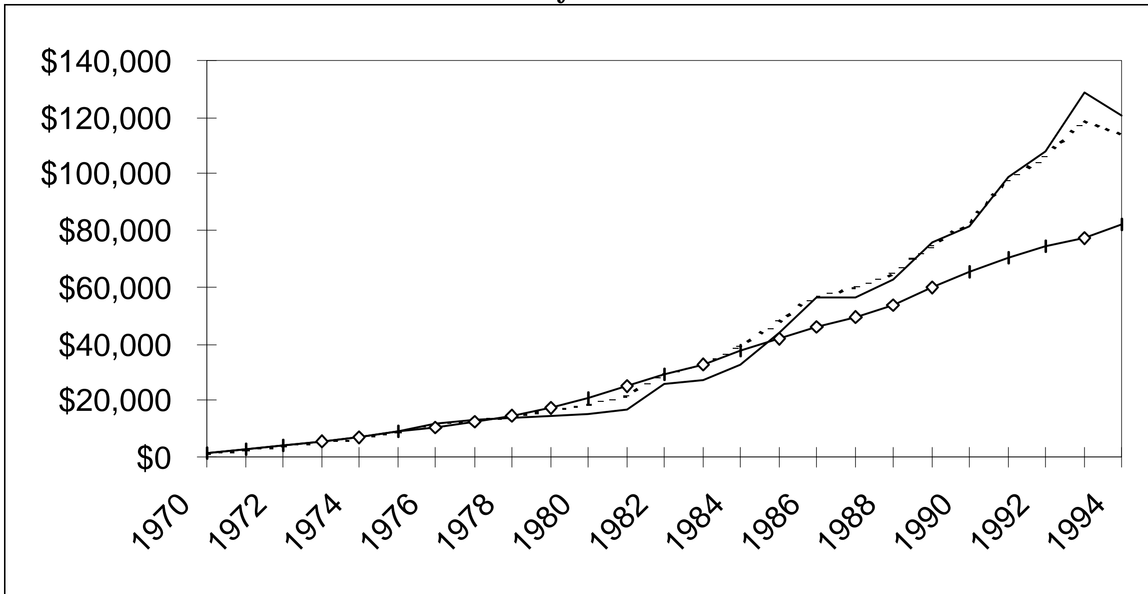
Exhibits 1 through 4 show three important features of investing reality. First, since different asset subclasses can behave quite differently in any given year and over time, it is easy to understand the old axiom, “do not put all your eggs in one basket.” This saying is the rationale for diversification within an asset class. The ups of one asset subclass offset the downs of another, resulting (hopefully) in a steadier, less volatile growth of the account (Exhibit 5).

Exhibit 1: Annual Returns of Various Fixed-income Indices



Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

Exhibit 2: Growth of $1,200 Invested Annually in Various Fixed-income Indices

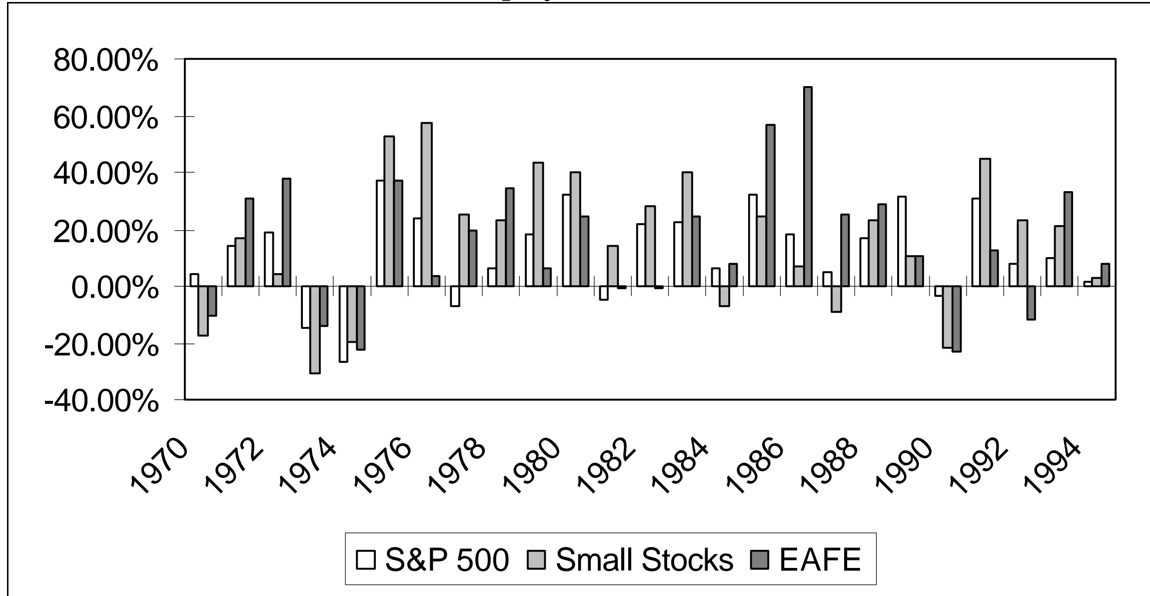


Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

Secondly, if the plan doesn't provide a participant the chance to invest in the asset subclass that is doing well in a given time period, that participant is losing an opportunity to make money, and possibly significant amounts of it. For example, does it make sense for a plan sponsor to exclude international investments since non-US stocks comprise about two-thirds of the world's stock market value and incorporating them into a portfolio has historically improved its performance? As can be seen in Exhibit 6, a portfolio consisting of 50% US (S&P 500) stocks and 50% international (EAFE) stocks generated an annualized compound rate of return of over 150 basis points more that a 100% S&P 500 portfolio during the time period 1970-1994.

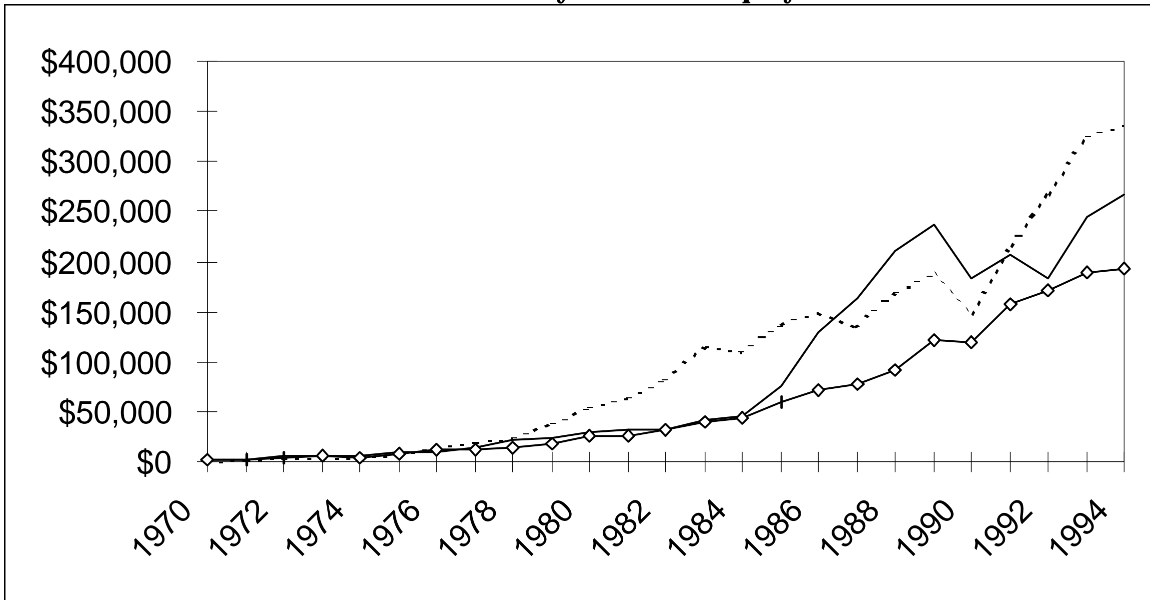
Lastly, Exhibits 1 and 3 show how the total return of asset subclasses can fluctuate dramatically from one year to the next. Should plan trustees take it upon themselves to limit which asset subclasses in which the participants may invest? By doing so aren't the trustees making implicit bets as to how the different asset subclasses will perform in the future?

Exhibit 3: Annual Returns of Various Equity Indices



Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

Exhibit 4: Growth of $1,200 Invested Annually in Various Equity Indices



Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

Exhibit 5: Diversification Provides Steadier Growth

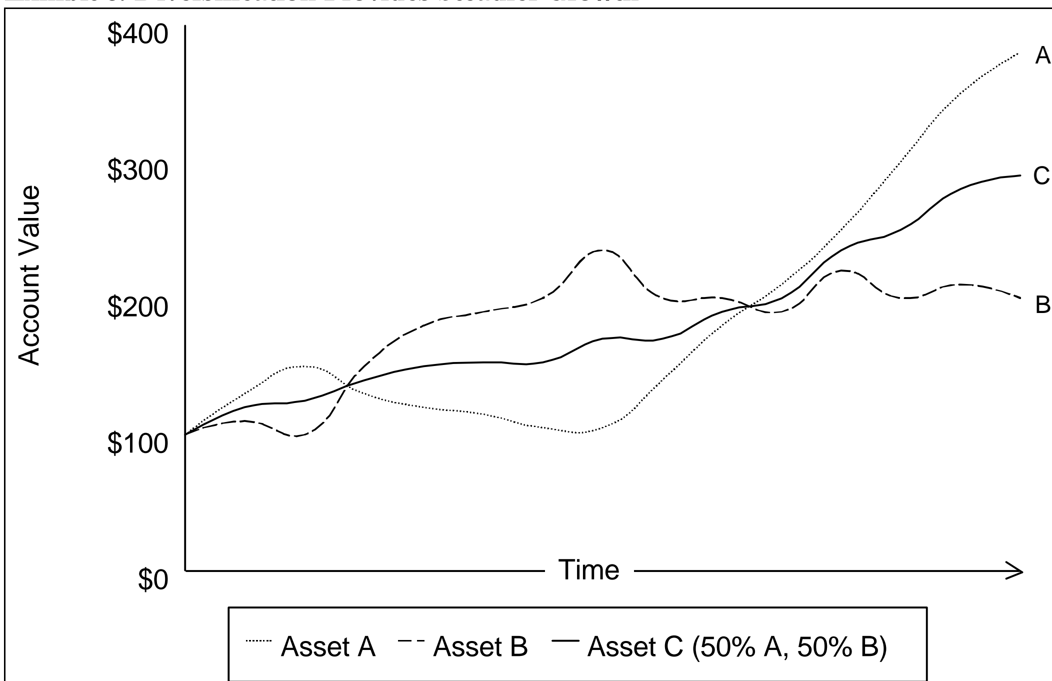


Exhibit 6: The Effects of Including International Stocks (1970-1994)

	100% S&P 500	50% S&P 500 & 50% EAFE
Compound Rate of Return	10.97%	12.48%
Growth of $1,200 Invested Annually	$151,663	$193,794

Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

Ideally how many fund options are recommended?
There is no easy answer to that question. Exhibit 7 shows what many investment professionals view as the dimensions of stock investing. Almost everyone involved in investing has seen the famous chart from Ibbotson Associates which shows that since 1926 small-cap stocks have outperformed by far large-cap stocks, bonds, and T-bills (see Exhibit 8). There are also charts like Exhibit 9 which show the risk and return relationships of various asset classes. This chart clearly shows why foreign and US small cap stocks are considered much riskier and potentially much more rewarding than large-cap stocks (such as the S&P 500). You have probably also heard that returns of foreign stocks are not highly correlated (or closely linked) with the returns of US stocks, not to mention the upside potential (don't forget the downside risk also) of developing markets. These observations, coupled with the diversification argument, leads to the recommendation of at least four equity funds.

What does style mean?
A manager's style is what defines his method of selecting individual securities. When it comes to equities, there are two broad categories, value and growth. Value managers buy stocks of companies that they think are priced at discounts to their true worth. Value managers feel the investing public, for whatever reason, just does not appreciate the potential of these companies, and that is why they are so undervalued.
Growth managers buy stocks of companies that they think are on a roll, i.e., they have earnings momentum. That is a fancy way of saying that the firm's recent earnings have been much better than their competitors or other companies in general and that these firms have a high likelihood of maintaining their growth rate over the foreseeable future. The companies growth managers favor are the ones value managers often think are overvalued and hence not suitable investments.

Although many managers classify themselves as value or growth managers, their various methodologies can be quite different. In fact, some so-called value managers have performance track records that more closely resemble many growth managers than they do other value managers and vice-versa. In fact, some managers use blended styles. Their methodologies incorporate aspects of both growth and value approaches.

Exhibit 7: The Dimensions of Stock Selection

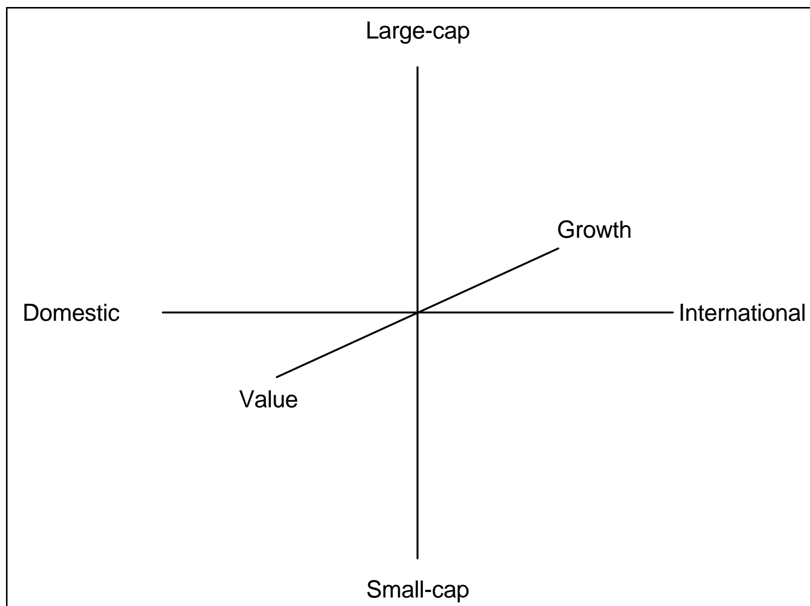


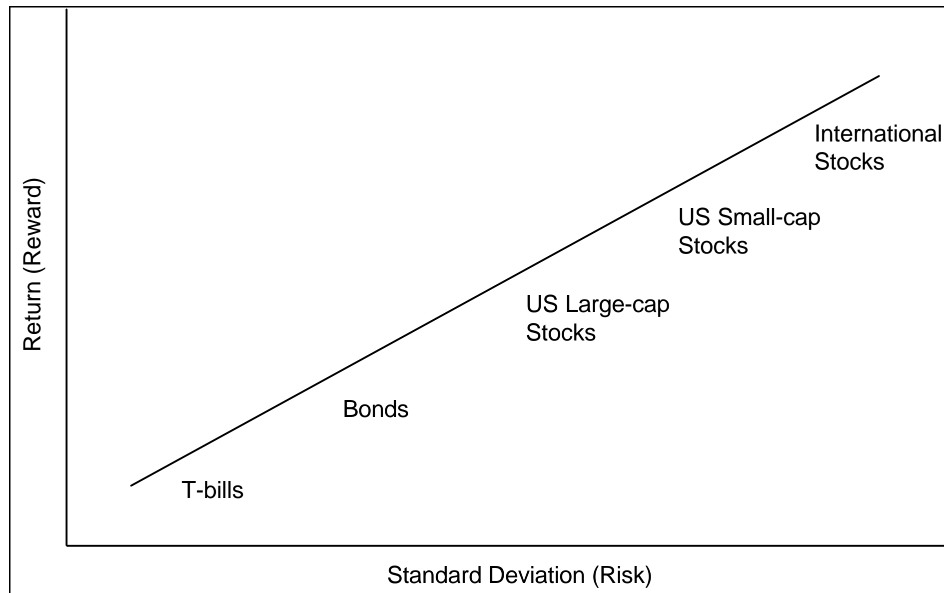
Exhibit 8: Investment Performance (1926-1994)

Investment Type	Annualized Compound Return	Growth of $1
Small Stocks	12.22%	$2,842
S&P 500	10.19%	$810
Intermediate-term Gov't Bonds	5.09%	$30
T-bills	3.69%	$12

Source: *Stocks, Bonds, Bills, and Inflation 1996 Yearbook*. Ibbotson Associates, Chicago (annually updates work by Roger G. Ibbotson and Rex A. Sinquefield). Used with permission. All rights reserved.

How can it be determined which approach a mutual fund manager uses?
There are many who would say, "Good luck." There are two main reasons for this seemingly flippant answer. First, the information in the prospectus is usually too general to enable even an informed reader to know what methodologies the manager is using. This is because the fund company wants as much latitude as possible in managing the fund's assets and the ability to utilize new techniques if the manager thinks it appropriate. In addition, the fund's sponsor wants to be able to replace a manager at will and the approach the new manager might take can be quite different than the one the previous manager used.

Exhibit 9: Risk vs. Reward



Secondly, over time, even if the manager doesn't change, the fund's investments can vary dramatically. In July, 1990 one large, well-known fund had over 50% of its assets in large-cap growth stocks and about 30% of the assets in small-cap value stocks. In January, 1995 large-cap growth stocks and small-cap value stocks combined fell to about 10% of the fund's assets. At the latter date the balance of the fund consisted of more or less equal amounts of large-cap value and small-cap growth stocks. This dramatic change in investment style is not all that atypical for mutual fund managers.

What this means is that you can select a fund today because it meets certain criteria only to find out tomorrow that the "tables have been turned upside down." Perhaps this is why mutual funds are categorized into vague categories, such as growth, capital appreciation, and growth and income. For example, Lipper Analytical Services Inc. defines a growth fund as a fund that invests in companies expecting higher than average revenue and earnings growth" and a growth and income fund as one that "pursues both price and dividend growth.

All active managers, however, profess to have a style that they religiously follow. And remember that you can fire a fund if it changes its style, but you can do this only so many times before participants start to wonder what's going on. Moreover, if you are using a bundled approach, you might have to stick with the fund for lack of other options.

A bundled approach occurs when a retirement plan purchases its recordkeeping services, investments, and other plan services from one source, be it a mutual fund family, an insurance company, or an alliance created by a consulting firm. In the unbundled approach the plan sponsor shops the marketplace in order to get the best and the most appropriate investment options and services. The principle advantages of bundling are one stop service and the use of asset management fees (one way or another) to offset recordkeeping and other plan costs. Its disadvantage is that you have to take whatever the vendor is offering; good, bad, or indifferent. Plan sponsors are finding that the quality spectrum of vendors of all types is quite broad. The strengths of one are the weaknesses of another.

What is the difference between active and passive management?
Mutual funds are run by investment professionals. Participants expect that these individuals will have greater insights than they do and will apply their knowledge, i.e., actively manage, to obtain returns that are higher, net of fees, than some passive, “no brainer” strategy such as investing in the S&P 500 or some other index fund. These professionals are paid by the participants through asset management fees which often exceed 100 basis points.

Unfortunately the track record of active managers in general, regardless of which style is used, is less than satisfactory. Over many long time periods active managers as a group have underperformed the indexes. It is this underperformance which has caused the increase in the use of indexing among large and medium sized defined benefit plans.

Does active management generally not work?
Not at all. It is simply difficult to pick tomorrow’s winners because past performance does not seem to be indicative of future performance. All too often one year’s top performers are the following year’s losers.

Is, then, the sole use of index funds recommended?
No. However, before an actively managed fund selected, information should be determined as to:

1. what its track record has been;
2. how it has compared to its peer group;
3. as much about its management style as possible including the tenure of the current manager and how its portfolio composition has changed over the last several years;
4. how it behaves in both bull and bear markets;
5. how frequently it “bombs out”;
6. the size and structure of its fees.

Many funds issue several different kinds of shares which carry significantly different fee structures. For example, one major fund company offers institutional and administrative shares of its funds. The total expenses (as a percentage of assets) charged to administrative shareholders of many of this company’s funds are one-and-a-half times those charged to institutional shareholders.

In addition, once certain funds have been selected, their performances should be followed carefully.

How can bond fund options be selected?
Bonds are just one type of fixed-income investments. Others types, such as collateralized mortgage obligations (CMOs), are very complex and even the experts often have trouble accurately predicting how they will behave in the real world. Oftentimes when participants think they are investing in a simple bond fund, they are really investing in a wide variety of fixed-income investments.

This discussion will concentrate on US government securities and how interest rate changes affect them, ignoring topics such as CMOs, credit risk, prepayment risk, convertibles, and duration. It will also be assumed for discussion purposes that a government bond fund will behave like an individual bond. Plan trustees, however, must become familiar with all these topics for they have major impacts on how risky a fund can be.

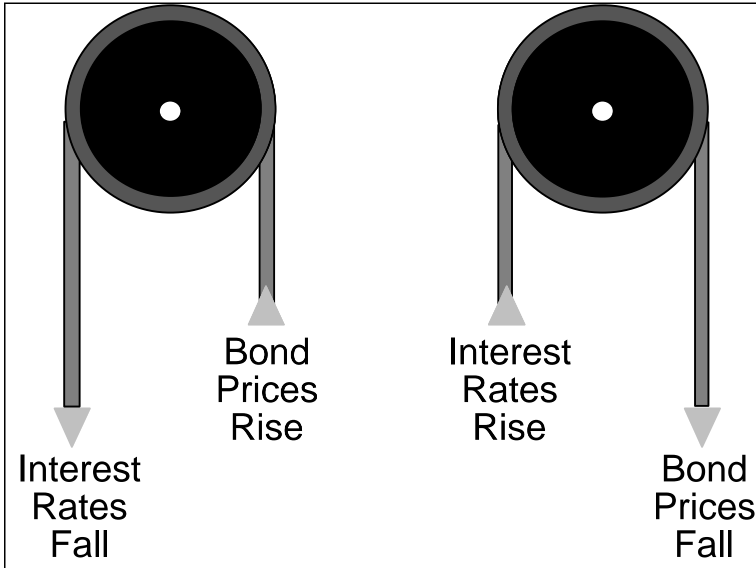
Many participants believe that if they invest in a US government bond fund, it isn’t possible to have a loss. They do not understand:

1. the significance of a bond fund not having a fixed maturity date;

2. the effect of interest rate changes on the market value of both individual bonds and bond funds.

Exhibit 10 shows the relationship between bond prices and interest rate changes. The magnitude of these changes can be seen in Exhibit 11.

Exhibit 10: Interest Rates vs. Bond Prices



Source: *Selecting Investments for Your Retirement Account*. Richard Glass.

Exhibit 12: $1,000 Bond with an 8% Coupon Rate

Years to Maturity	Price if Interest Rates Drop to 6%	Price if Interest Rates Rise to 10%
3	$1,054	$949
5	$1,085	$923
10	$1,149	$875
20	$1,231	$828

An investor who plans on holding bonds to maturity can disregard interest rate movements. Bond fund holders cannot because the funds don't have a maturity date. In fact, an upward spiraling interest rate movement could create decreases in share value that more than offset increases in interest rate payments. Decreasing interest rate scenarios work just the opposite way. Trustees must make sure that participants understand that while current yield is of interest to prospective purchasers of a fund, it is total return that is important to investors such as 401(k) plan participants who are focused on long-term growth.

Thirty-year US treasuries had a yield of about 6% at the end of 1995. According to Lipper Analytical Services (*Wall Street Journal*, January 5, 1996, p. R2), for 1995 the average returns for longer-term, intermediate-term, and short-term US treasury bond funds were 22.03%, 16.11%, and 10.6% respectively. For 1995 money market funds ranged from 6.23% to 3.77% (*Wall Street Journal*, January

5,1996 p. R8). This variation in performances of the different types of bond funds in 1995 shows why participants need more than one fixed-income option.

Admittedly stable asset funds cannot generate capital gains, but they also don't generate capital losses like a lot of bond funds had in 1994. Should this perhaps merit their inclusion as an investment option?
It appears that the only reason why plan sponsors include stable asset funds as an investment option is because their participants like them, not because they offer an inherent investment advantage. In fact, there is a cost for book value accounting and the firms that provide the guarantee anticipate making a nice profit on this type of business. Participants, then, are giving up a substantial portion of their returns just so volatile investments (bonds, mortgages, real estate, CMOs) can look like federally insured certificates-of-deposit. "Does this make sense?" is the question each plan's trustees must answer for themselves.

Why does Section 404(c) say that its requirement that a participant be offered a broad range of investment alternatives is satisfied if the plan offers three "core" alternatives?
The answer to this question is uncertain. A plan's trustees must be able to justify their choice of investment options. If they cannot, they have a potential fiduciary liability problem.

Aside from the investment options discussed so far that meet the needs of a participant with investment savvy, what can trustees do to help the relatively uninformed participant?
In an ideal world all plan sponsors would offer investment and financial planning education to their employees. Employees, in return, would enthusiastically participate in this wonderful opportunity and, in recognition of the need to help themselves, would also frequently read the financial press. Unfortunately we don't live in an ideal world.

The first thing plan sponsors should do is to demand from their vendors true educational materials rather than the glitzy, glossy communications pamphlets and brochures that mutual fund families, insurance companies, and banks routinely pass out. Plan sponsors and trustees must recognize and accept that a ten to twelve page brochure, a four to six page quarterly newsletter, and a brief discussion of the plan's investment options will not empower a plan participant to make allocation decisions sensibly or to begin to develop realistic expectations of the capital markets and individual fund performance.

An educational program is multifaceted and must be ongoing, year in and year out. It involves seminars, workshops, software, guidebooks, newsletters, videos, and audiocassettes. In spite of using a variety of media, the plan sponsor must accept that not all participants want to learn, and in some industries, due to salary levels, it is highly likely that many employees will feel they cannot afford to participate regardless of how good a deal the 401(k) plan is.

Trustees and sponsors must also realize than no single program will be suitable for all, or possibly even most, of their employees. Separate educational strategies must be utilized for each category of participant. Management and supervisors must buy into and encourage their employees to participate in the educational process. (For a thorough discussion of the investment education process, see Glass and Marshall, "Issues in Participant Investment Education," *Employee Benefits Journal*, September 1994.)

Is this type of educational program expensive?
Perhaps it does not have to be. First, a product vendor is charging for its communications material. The cost of that material should be determined and better products negotiated for. Alternatively, the

vendor can be requested to direct the costs to the products selected. The quality of the specific program can thus be enhanced significantly at little or no additional cost.

Plan participants want as much information as they can get according to surveys conducted by Communi(k) Research. Their research found that 89% of those surveyed could not only understand worksheets written at an eighth grade level, but found them very useful. 69% read at least some of the major articles and all the headlines and captions in newsletters. 93% said they want more information on how to invest. 94% found anniversary meetings useful and necessary.

What might surprise those who feel they understand Generation X is that participants of all ages don't view videos as powerful educational tools when compared to other media such as software. They are fine as part of an enrollment package or for sensitizing new participants. Videos apparently are considered entertainment and not a serious educational medium. (The survey results were presented at the Strategic Pension Research Network meeting, Oct, 1995.)

Plan sponsors must also understand that there is a cost of doing something and a cost of doing nothing. Doing nothing today might end up being much more costly in the long run than installing a well-thought-out educational strategy today. Once employees know they cannot afford to retire, or at least to retire comfortably, just think what is going to happen to morale and their performance on the job? Perhaps employer retirement income subsidies will be required?

Surveys by John Hancock and New York Life1 have shown that all too many participants don't understand the basics of investing, such as what type of assets comprise a money market fund. Investing in ignorance is like going rabbit hunting and shooting only where the rabbit was and not where it is. In both cases you never hit the target.

The following are some of our observations of participant attitudes and beliefs. They amply demonstrate why investment education programs are so important:

1. Participants equate risk with losing money.
2. Participants believe that if they save and do not lose money, they will have financial security at retirement.
3. Although financial security is viewed as the goal, financial insecurity is not considered a risk.
4. Traditional risk/reward charts reinforce the belief that market volatility is the principal risk plan participants face.
5. Although participants understand how inflation erodes their current buying power, they do not link inflation's effects to their retirement income needs.
6. Most plan participants don't know what mutual funds are even though their money is invested in them.
7. The role time plays in the asset allocation process is not understood.
8. Too many participants equate being conservative with being prudent because they feel that it is very difficult, if not impossible, to recover losses.
9. Participants do not think in terms of portfolios. They think only of the performance of individual funds and use certificates of deposit as their performance benchmark.

What, if any, is the use of risk tolerance questionnaires in helping participants make asset allocation decisions or selecting pre-packaged lifestyle portfolios?

A lifestyle portfolio is a portfolio that is suppose to meet the risk tolerance level, such as conservative, growth oriented, moderately aggressive, etc., of a specified group of employees. The risk tolerance level is determined by the scores participants achieve on risk tolerance questionnaires. There is no reliable correlation, however, between the lifestyle

portfolio the questionnaires suggest are appropriate for a given participant's risk tolerance level and a portfolio with the asset allocation that will likely provide the financial security a participant seeks.

If the plan sponsor's goal is to help participants help themselves, risk tolerance questionnaires probably don't work since, according to most surveys, the average participant is quite uninformed about investment issues. Participants' answers are based upon fears, ignorance, and misperceptions rather than knowledge. All the questionnaires probably do is to enable and encourage all too many participants to pick investment options for all the wrong reasons.

The use of these questionnaires also raises another issue. Does a participant's inability to sleep at night (which oftentimes is directly proportional to their level of misunderstanding of basic investment concepts) have anything to do with the portfolio that most likely will meet his or her long term financial needs the best? The answer is no. The trustees' task is not to help participants to rest peacefully in investment ignorance. Rather it is to help employees help themselves via the investment education route. If our analysis is correct, recommending an asset allocation based upon risk tolerance questionnaires could generate considerable fiduciary liability for both plan sponsors and the vendors who endorse them.

Even if a plan sponsor instituted the ideal investment education program today, it will take a considerable amount of time for most participants to feel comfortable with making asset allocation decisions on their own. Are there any prepackaged products that can be used as the participants go up the learning curve?
Yes, and they are called lifecycle funds. These funds have portfolios whose composition is determined upon the number of years to go to retirement. A portfolio's allocation assumes that retirement security is the participant's only goal. The participant's attitude towards risk or desire to use loan provisions to buy a home or fund a child's education isn't factored into the allocation decision. In fact, one family of lifecycle funds uses life expectancy rather than the retirement date as the investment time horizon.

Lifecycle funds should be offered in addition to, not in place of, traditional fund options. Lifecycle funds should be offered as an option for participants who feel uncomfortable making their own asset allocation decisions. On the other hand, participants with more investment expertise must also be able to create their own asset allocation, and this requires traditional fund options.

Should the reasons for whatever investment options the trustees select, as well as the investment education program that is utilized, be carefully documented?
Most certainly. Since these are important fiduciary issues, whatever the trustees do must be in the best interests of the participants and must be carefully thought out. The plan should have a written investment policy and strategy for implementation as well as a documented monitoring process for both investment performance and product vendors' level of service.