

Investment Management for Endowed Institutions

Laurence B. Siegel
The Ford Foundation¹

When an organization obtains funds that are intended to be used over an extended period of time, or preserved and grown for future use, it becomes a priority for that institution to acquire skill in investment management. This manual is intended as a primer on that topic. First, we outline principles of *governance*: how investment decision-making authority may be allocated, how investment goals can be determined, and how various types of service providers can be used to enhance the investment process. Second, we set forth some principles of investment management and asset allocation generally applicable to endowed institutions and similar organizations.² Finally, we describe some methods for selecting investment management firms to manage the various asset classes in a typical fund, and indicate ways to monitor the managers and evaluate fund performance.

A word about wording: we refer to the organization owning the assets in question as the *institution, endowment, or investor*. This is in contrast to the *investment manager* (or simply *manager*), which is the firm or individual charged with the responsibility of buying and selling assets on the investor's behalf.

This manual is written from the perspective of a U.S. institution, and specific asset allocation suggestions found herein should therefore be regarded as specific to organizations headquartered in the U.S. It is simply not possible for a single document to address the multitude of investment, regulatory, and cultural issues that arise for non-U.S. organizations. However, the basic investment principles enunciated here, as well as our comments on process and structure, are generally applicable worldwide. Non-U.S. organizations should consult local authorities and advisers regarding the implementation of their investment programs. All readers of this primer should regard it as a first step in understanding the investment management process and expert advice specific to your organization should always be sought.

¹ Second edition, April 2001. The author thanks Ian Kennedy of Cambridge Associates, as well as Linda Strumpf and other colleagues at the Ford Foundation, for their many valuable comments.

² An organization need not have a literal endowment, in the sense of a perpetual or very long-term store of funds, for the principles discussed in this manual to apply. For example, an organization receiving a grant intended to last for five years may wish to invest some funds in asset classes other than cash, requiring understanding of the principles described here. For brevity, however, we refer to all organizations having investable assets as endowed institutions.

I. GOVERNANCE

A. Investment committee

1. Forming an investment committee

Most nonprofit organizations have a governing body (usually called a board of directors or trustees) that determines the organization's policy, monitors progress toward the organization's goals, and sets rules and standards for operations — including financial operations. It is a natural extension of these duties to oversee the organization's investment program. Typically, the board forms an investment committee consisting of two or more board members, selected for familiarity with business and financial issues. Alternatively, the organization may recruit individuals to serve on the investment committee (or investment-advisory group) but who do not join the board. Such individuals may be:

- Local business executives
- Bankers, investment managers, or accountants
- College and university-level instructors in finance or accounting

Of course, members of the investment committee or advisory group should be sympathetic to the goals of the organization. Investment committees of more than 6 persons (including non-board advisors) can be unwieldy. Also, to avoid conflict of interest, it is best to select individuals who do not control or work for firms likely to be selected as an investment manager for the organization.

2. Role of investment committee

The role of the investment committee is to plan — choose — review.

Plan. The first question to be answered in the planning stage is: What is the money for? If the funds are a perpetual endowment, the investment plan should be very different than if the funds are for constructing a building next year. (The perpetual endowment can afford to take more risk, which is likely — but not guaranteed — to lead to a higher investment return over the full period for which funds are invested.) The outcome of the planning process should include:

- Spending policy — what dollar amount or percentage of assets should be spent per year, and how this amount should change as circumstances change (say, unusually high or low investment returns, or new gifts received)
- Asset allocation — that is, a target percentage (or percentage range) in stocks, bonds, cash, and other asset classes that is consistent with the purpose for which the funds are invested
- Fund structure — how many investment management firms to employ, whether to use passive or active management, and other issues

It is strongly advisable for the investment committee to prepare written Investment Policies and Guidelines that summarize the results of the planning process and that provide a paper trail for the benefit of the organization's staff, investment managers, and others. The investment committee can change the Investment Policies and Guidelines at any time.

It should be noted that the investment objective may *not* be to make as much money as possible, but to maintain a sustainable level or growth rate of spending. This moderates the risk level and focuses the investment policy on avoiding painful spending cuts during market downturns. Such an objective may be unfamiliar to fund trustees, who are accustomed in their business lives to thinking about ways to make money, not to distribute it.

Choose. The next step is to select one or more investment managers. Some funds, especially those with small investment programs, may be attracted to the simplicity and efficiency of using a single manager. Such a manager may be a bank trust department, mutual-fund organization, or independent investment-advisory firm. Other funds may wish to select one or more managers for each asset class in which they are invested.

Review. Investment results must then be reviewed on a periodic (say, annual or quarterly) basis, to make sure that progress toward the organization's investment goals is satisfactory. In particular, the investment committee needs to review:

- Asset allocation — to determine whether the asset mix continues to be appropriate, in light of changing organizational goals and market conditions
- Manager performance — so that managers with consistently poor results, relative to their benchmark or asset class return, can be terminated and replaced

Manager turnover should be kept low because it is costly to terminate a manager and hire a new one. Moreover, there is no assurance that the new manager will be better than the old.

The review stage also involves making sure that managers are not violating their mandates (say, by buying international stocks for a U.S.-only account), and that reports are understandable and accurate. The rare instances when funds have been exposed to operational, control, or fraud risk may also be discovered at this stage.

The main goal of this manual is to fill in the blanks in this plan — choose — review process. Section II provides information that assists investment committees in arriving at a sensible asset allocation and in developing other elements of the investment plan. Section III-A assists committees in selecting managers for the various asset classes. Section III-B provides guidelines for evaluating the performance of the fund and of its managers.

B. Use of consultants

1. Role of consultant

The investment committee may find it extremely helpful to retain the services of an asset-management consulting firm. Such consultants can help to determine the appropriate asset allocation for a fund, collect qualitative and quantitative information about managers, recommend managers, measure and evaluate their performance, and recommend the termination of poorly performing managers. However, it is the role of the investment committee, not the consultant, to actually hire and fire the managers. Exhibit 1 summarizes the division of labor between the investment committee and the consultant.

Exhibit 1 Division of Labor Between Investment Committee and Consultant	
<u>Investment Committee</u>	<u>Consultant</u>
<ul style="list-style-type: none">• Define basic questions<ul style="list-style-type: none">— What is money for?— Investment objective— Risk level• Write policies and guidelines• Select consultant and investment manager(s)• Monitor overall process	<ul style="list-style-type: none">• Develop asset allocation consistent with goals• Provide information on managers• Recommend managers• Evaluate manager performance• Recommend manager termination

2. Selecting a consultant

While many firms and individuals hold themselves out to be consultants, endowed institutions and similar organizations should use the services of *institutional asset management consulting firms*. Such firms can be identified by their list of clients, which should include several of the following:

- Foundations and university or college endowments
- Corporate pension plans
- Public (government workers, teachers, etc.) pension plans
- Taft-Hartley (labor union) pension plans

An individual consultant with proper background and qualifications may be used as long as he or she is not also a broker, financial planner, or (with some exceptions) an investment manager.³

3. Compensation of consultants

Consultants are generally paid through a combination of retainer and hourly fees, and the best tend to be expensive. It is a poor practice to allow consultants to be paid through placement fees (paid to the consultant by managers that the consultant recommends), except for exotic asset classes such as private equity and hedge funds to which the investor would not otherwise have access. Only the most sophisticated investors should consider these asset classes anyway.

4. Avoiding the use of consultants

While consultants like to say that they are indispensable to investment committees, many committees function perfectly well without a consultant. For this to work, the committee should have at least one person thoroughly conversant with the issues in this manual. The committee then deals directly with the selected manager(s). Organizations that adopt a simple investment strategy — say, a balanced account, or a mix of stock and bond index funds, can often avoid the involvement of consultants.

5. Special resources

Commonfund and The Investment Fund for Foundations (TIFF) are investment management firms that specialize in investment policymaking and implementation for nonprofit institutions. Both firms are themselves not-for-profit membership organizations. Investors wanting further information about Commonfund and TIFF may contact these firms directly.⁴

³ It is increasingly common for large, well-regarded institutional asset consulting firms to be affiliated, through common ownership or other arrangement, with an investment management firm. (Frank Russell Company is a well-known example.) It is unrealistic to exclude such consulting firms from the candidate list simply because they are controlled by an entity that also manages money.

⁴ Commonfund, 15 Old Danbury Road, #200, Wilton, CT 06897-2531; phone (203) 563-5000; E-mail: shorelik@cfund.org Web page: <http://www.commonfund.org/home.stm>

The Investment Fund for Foundations, 2405 Ivy Road, Charlottesville, VA 22903; phone (804) 817-8200; E-mail: info@tiff.org Web page: <http://www.tiff.org/home.html>

II. PRINCIPLES OF INVESTING

A. Principal asset classes

1. Overview

The principal asset classes in which institutions can invest are:

- Stocks (also called equities)
- Bonds
- Cash

In addition, a number of alternative assets, including real estate, private equity, and other specialized strategies, have become popular in recent years with investors. While we do not recommend these strategies for institutions with small endowments or with limited ability to monitor complex investments, they are discussed briefly in section II-A-4.

In this discussion, when we refer to stocks or equities, we generally mean diversified stock funds in which a large number of stocks in a particular category are held. A typical fund invested in U.S. stocks would have at least 30 names (different companies) and might have several hundred. The same is true of bonds and other asset classes.

2. Categories of stocks

Stocks represent ownership of a share of a business. Investors earn returns on stocks through increases in the price-per-share and, in most cases, through dividends (a portion of corporate profits paid directly to shareholders instead of being reinvested in the business). Because they provide an opportunity for growth of capital, stocks constitute some 60% to 70% of the investment assets of U.S. institutions including foundations, endowments, and pension plans. The risk and return characteristics of stocks are discussed in section II-B.

The principal categories of stocks in which institutions typically invest are:

- U.S. stocks
- International developed-country stocks (Western Europe, Japan, Canada, and Australia)
- Emerging market stocks

U.S. stocks should form the bulk of the equity portfolio, with non-U.S. stocks held in smaller proportions (up to 25% of the total invested in stocks). International developed-country stocks are an important component of most investors' portfolios because they tend to diversify the risk of investing in just one country (the United States) and because they expose the investor to opportunities not available here. (While U.S. stocks had the highest returns in the 1990s and to date in 2000-01, there have been long periods when international stocks beat U.S. issues. This

occurred over almost the entire period from 1975 to 1989.) Emerging market stocks are riskier than the other categories and, if held at all, should constitute 5% or less of the total invested in stocks.

Active management versus index funds. An index fund invests in each stock in an index (say, the S&P 500) in an amount proportionate to the stock's weight in the index. No attempt is made to beat the return on the index. This approach is sometimes called *passive investing*. Management fees are low, but any hope of earning a return higher than that of the index must be abandoned. Index funds are available for every major category of asset, including U.S. stocks, international stocks, and bonds.

Index-fund investors reason that on average across all managers, the investment management industry cannot possibly beat the indices because they sum to the market. In the jargon of mathematicians, investing is a *zero-sum game* relative to the index; one manager's outperformance must come at the expense of other managers' underperformance. Therefore, index-fund investors argue, it is better (and cheaper from a fee standpoint) simply to hold the index.

The majority of stock funds, however, are actively managed. That is, the manager selects stocks in an attempt to beat the index representing the asset class in which the fund is invested. Investors who participate in these funds reason that many managers outperform the indices for long periods, and that a relatively modest rate of outperformance — say, 1% per year — accumulates to a large difference in wealth over long periods. (A \$1 million investment invested at an 11% annual rate of return grows to \$8.1 million in twenty years, but at 10% it grows to only \$6.7 million.) By careful selection of managers and styles, these investors argue, institutions can achieve better-than-average results.

Informed investors differ on whether indexed or active management is a better idea. That decision is up to the investment committee of each institution. The fact that some 30% of all institutional equities are indexed, and 70% are actively managed, indicates both methods are widely accepted.

Investment style. Many U.S. equity portfolios, and some non-U.S. portfolios, are concentrated in one size category (large, medium-sized, or small companies) and/or in one methodology for picking stocks (growth or value).⁵ Some large investors, including the Ford Foundation, build a diversified fund of stocks by combining portfolios managed according to several different styles. This process is labor-intensive and does not guarantee superior results. We recommend instead that most institutions select a core equity manager whose approach

⁵ *Growth* investors seek companies that are experiencing strong increases in sales and profits, and do not mind paying higher-than-average multiples (the stock price expressed as a multiple of the current year's profits) for the possibility of participating in the company's future prosperity. *Value* investors, representing an almost diametrically opposed point of view, seek companies that are selling for less than their fair value — that is, they hope to pay lower-than-average multiples — and expect to benefit from price increases when markets recognize the fair values. Unlike growth investors, value investors may buy into stable or declining companies.

includes elements of both growth and value investing, and companies of different sizes. A core manager can be either indexed or active.

3. Categories of fixed-income investments

Like stocks, fixed-income investments (bonds and cash) come in many categories:

- U.S. investment-grade bonds (Treasuries, mortgages and corporates)
- U.S. high-yield bonds
- Non-U.S. bonds
- Inflation-linked bonds
- Emerging-market debt
- Stable-value securities such as Guaranteed Investment Contracts (GIC s)
- Cash reserves

The relation between bond yields (interest rates) and bond prices, the risks of bonds, and other general characteristics of fixed-income investments are discussed in section II-B-3.

For most institutions, U.S. bonds should form all or most of the fixed-income investment program. Investment management firms offer funds in each of the categories named. Within each category, the most important characteristic of a fund is its duration, a measure of interest-rate risk.⁶ Funds with an intermediate duration (investing in bonds with an average maturity around 5 years) typically offer the best mix of risk and return characteristics. Long-duration funds are designed principally for specialized institutions, such as defined-benefit pension funds, that have a long-duration liability.

High-yield bonds are issued by corporations that have substantial credit risk. Because of their high interest rates, these bonds represent an attractive opportunity for investors who are not particularly averse to risk. Likewise, non-U.S. bonds are held in small quantities by many institutions, especially those with sophisticated staffs capable of monitoring these investments. A fixed-income program can be considered well-diversified without holding these or other specialty investments.

Inflation-linked bonds are a relatively new category that is of special interest to institutions having liabilities that grow with inflation. The best-known inflation-linked bonds are issued by the U.S. Treasury and have no default risk. Both the principal amount and interest payments on these bonds are linked to changes in the consumer price level, so there is no possibility of the

⁶ More precisely, duration is the present-value-weighted average time to the receipt of cash flows from an asset, and is measured in time units (say, years). For a bond, duration is related to maturity; a 5-year bond yielding 6% has a duration of 4.4 years, while a 10-year bond with the same yield has a duration of 7.7 years. Duration measures interest-rate risk because the price of a longer-term bond is more sensitive to changes in interest rates than the price of a shorter-term bond. (See section II-B-3.)

bonds return falling short of inflation if held to maturity. The total return on these bonds consists of the current interest rate on these bonds (about 3-1/2%) plus the inflation rate.

Cash is an important reserve asset for endowed institutions and similar organizations. Obligations need to be settled in cash, and it is not always practical to liquidate stocks or bonds when cash is needed. Moreover, cash has no interest-rate risk, so it is the safest asset, at least over the short run. Interest rates on cash are typically lower than on bonds, but are not insignificant. In the asset allocation process, many institutions treat cash as its own asset class, separate from bonds. It is not, however, absolutely necessary to do so.

Cash is usually invested by the institution's bank or investment management firm in a money-market fund or short-term investment (STIF) fund. The underlying assets held by the money-market or STIF fund are U.S. Treasury bills, certificates of deposit, and short-term corporate obligations.

4. Alternative assets

Many investors, particularly university endowments, foundations, and wealthy families, have recently turned to so-called alternative investments. These investments are said to offer attractive returns with little or no exposure to traditional stock and bond markets. The principal categories of alternative investments are shown in Exhibit 2, classified into illiquid investments (in which money is locked up for a period of time) and liquid investments (in which the investor can get his or her money out relatively quickly).

Exhibit 2 Types of Alternative Investments	
<u>Illiquid alternatives</u> Private equity — Venture capital — Buyouts (U.S. and international) Real estate properties Timber Oil and gas	<u>Liquid alternatives</u> Real estate investment trusts Commodities Hedge funds and hedge-like funds — Market-neutral equities — Long-short equities — Short sellers — Arbitrage (event/merger, capital structure, fixed income) — Global macro — Distressed securities

Alternative investments appeal to investors who (1) believe the stock and bond markets are too high, (2) want inflation protection, and/or (3) want to invest in assets that are statistically uncorrelated with traditional assets. The track record of these investments in performing as advertised is mixed, and success in this area relies on selection of unusually skilled managers. It is

difficult for small institutions, or those new to the alternative-investment arena, to identify and gain access to the best funds. We recommend these investments only for large institutions with a strong staff, and with an investment committee that understands that the uncorrelated behavior and inflation hedging properties are not guaranteed. Even then, all alternative investments combined should not exceed 15% of total fund value, and the investor should consider a *fund-of-funds* structure wherein a consultant or outside manager allocates the funds to various specialized sub-advisory firms.

5. Balanced accounts

A balanced account offers a one-stop shopping approach to investing, and offers a mix of stocks, bonds, and sometimes cash. Many institutions find this option attractive because they can delegate most investment decision-making to the manager, who controls the asset allocation as well as the security selection. It is important that the investor communicate clearly in writing with the manager regarding his asset allocation guidelines; otherwise the manager can do more or less whatever he wants.⁷

Many mutual funds are balanced accounts. Small institutions can simply purchase shares of a balanced mutual fund directly from the fund operator.⁸ Because every investor in a particular mutual fund gets the same portfolio, the balanced mutual fund must be chosen carefully so that its asset allocation policy is in line with the investor's needs. We describe the characteristics of mutual funds, and advantages and disadvantages of using them, more thoroughly in section III-A-4.

B. Returns and risks of principal asset classes

1. Relation between risk and expected return

The most fundamental concept in investing is the relationship between risk and expected return. By risk we mean fluctuation in asset values. Thus a cash investment such as a money-market fund experiences no fluctuation of principal; the price of a share in the money-market fund is fixed at \$1.00. (The interest rate does vary.) Because such an investment is exceedingly safe, issuers do not have to pay investors a high interest rate in order to attract funds. The interest rate, or expected return, on money-market funds is, therefore, currently only about 4-1/2% to 5% per year.

⁷ This, of course, only works for separately managed accounts (more detail in section III-A).

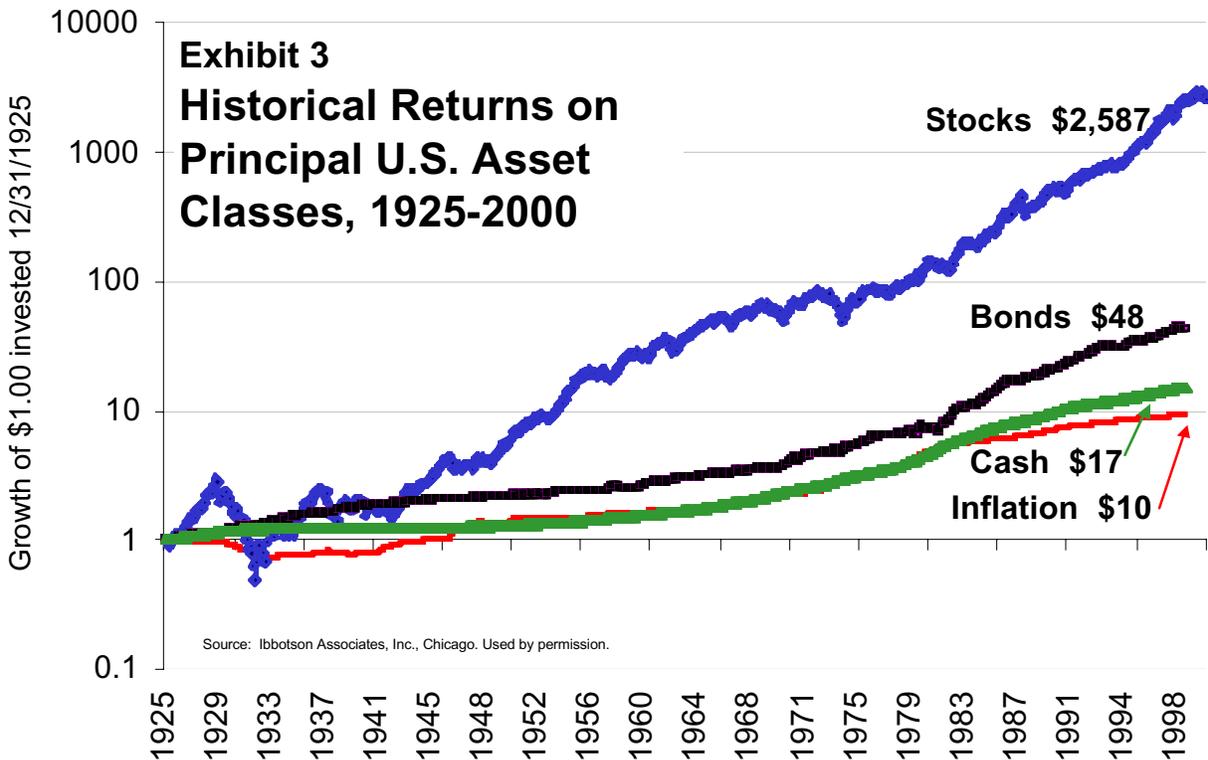
⁸ One of the leading sources of mutual fund information, including performance data, portfolio contents (as of some recent date), and commentary, as well as manager names and addresses, is Morningstar, Inc., 225 West Wacker Drive, Chicago, Illinois 60606 USA; phone (312) 696-6000; E-mail productsupport@morningstar.com Web page: <http://www.morningstar.com>.

Unlike money-market funds, long-term bonds do fluctuate in market value (more about this later), so that issuers have to pay a higher interest rate to attract funds. A diversified portfolio of U.S. Treasury and high-grade corporate bonds currently pays about 5-1/2%.

Stocks, which fluctuate more than any other commonly-held investment, need to offer an even higher expected return in order to be attractive to investors. Stocks do not pay interest, so the gains (or losses) to the investor come in the form of increases (or decreases) in the price per share, plus dividends if any.⁹ The most widely-used index of stock market performance in the United States, the Standard & Poor's 500-stock index (S&P 500), has provided investors with a total return (capital gain plus dividends) of about 11% per year over the period from 1926 (when accurate records began to be kept) through 2000.¹⁰ The seemingly small difference between this rate of return and the lower return on bonds or cash accumulates to a huge difference in total wealth when compounded over a long period. Exhibit 3 indicates that a hypothetical investment of one dollar in the stock index in 1926 grew to \$2,587 by 2000, while bonds grew to only \$49, and cash provided an even lower return that barely outpaced inflation. (Exhibit 4 provides summary statistics, including standard deviation — a measure of risk — for the data used to construct Exhibit 3.)

⁹ A stock does not need to pay dividends to be a desirable investment. Tax-exempt investors should theoretically be indifferent between receiving dividend income and an equivalent capital gain. In practice, however, institutional investors with a liability or spending requirement find the cash income from dividends useful in the sense that they have to sell fewer shares of stock to meet obligations.

¹⁰ U.S. markets are used for this illustration because the bulk of U.S. institutions' assets are likely to be in these markets, and because data are available for a longer period in the United States than in other countries. However, the same principles apply to non-U.S. markets.



2. Risks of stocks

Why not hold just stocks? The reason is that stocks are too risky, even over quite long periods. Looking at Exhibit 3, an investor who bought at the 1929 high would have had to wait until 1945 just to break even — and that is true only if dividends were plowed back into the market, rather than being spent. If dividends are not included, then the investor would have had to wait until 1954 to break even. Obviously such a run of poor returns would sink most institutions if they had any spending obligations at all. A safety net consisting of some proportion of assets held in bonds and/or cash would have greatly ameliorated the outcome.

The crash of 1929 and subsequent Great Depression might appear to be a one-time event that we do not have to worry about in the future, but the market declines of the 1970 s and early 1980 s were almost as severe in terms of their impact on investors. (The real economy, in the sense of production and employment, did not sink nearly as low in the latter episode.) To see the impact of the declines in the 1970 s and early 1980 s, look at *real* (inflation-adjusted) returns, represented by the distance between the stock line and the inflation line in Exhibit 3. In real terms, an investor who bought at the 1959 high was under water at the 1974 low; and an investor who bought at the 1968 high was under water at various times as late as 1984. Again these results assume reinvestment of dividends into the market. Only an unreasonably optimistic investor would conclude that the successes of the American economy since the early 1980 s have made it impossible for such a debacle, which happened so recently in our history, to be repeated.

The inescapable conclusion is that stocks are risky, even for investors who can afford to hold on for a decade or more.

It appears from Exhibit 3 that the risk of stocks disappears if the investor holds on for the very long run — say, 30 years or more. After all, every old high was eventually surpassed, no matter how far the market fell, or how long the market stayed down. However, there is no guarantee that this will happen again. In fact the return that is expected on stocks is somewhat lower than the 11% historical return — our best estimate is about 8%. Of course, that is just the expected return — a statistical concept representing the average of all likely outcomes. The actual return could be much higher or lower.

Exhibit 4		
Summary Statistics of Annual Returns on Principal U.S. Asset Classes, 1926-2000		
<u>Asset Class</u>	<u>Compound Annual Return</u>	<u>Standard Deviation (Risk)</u>
S&P 500 Stocks	11.0 %	20.2 %
Intermediate-Term Bonds	5.3 %	5.8 %
Treasury Bills	3.8 %	3.2 %
Inflation	3.1 %	4.4 %

Source: Ibbotson Associates, Inc., Chicago. Reprinted by permission.

3. Risks of fixed-income investments

Risks of bonds. Bonds are typically less risky than stocks because the investor gets his or her original investment back when the bond matures, plus interest paid during the life of the bond; stockholders have no such protection. Like stocks, however, bonds fluctuate in price. This is because market interest rates change, while the interest payment on a particular bond remains fixed over the life of the bond. Consider a 5% U.S. Treasury bond maturing 30 years from now. The bond pays annual interest of \$50 per \$1000 invested. Now, if interest rates rise, so that new Treasury bonds pay 6%, the bond paying \$50 per year becomes less attractive, and its market price will fall to the point where its yield is equal to the 6% offered on the new Treasuries. This price is approximately \$873, so that in this example the bondholder has lost over 12% of his original investment.

Thus bond prices move opposite bond yields (interest rates). Contrary to intuition, falling yields mean rising prices, and are good news for bond investors; rising yields mean falling bond prices, and are bad news.

The risk of bonds caused by interest-rate fluctuations is illustrated in Exhibit 3, where the line representing bond performance is not smooth. (Intermediate-term bonds, with an average of five

years to maturity, are used to represent bond performance in the exhibit.) There are many periods of small losses. However, in the long run, bond investors have faced much less risk than stock investors, as indicated by the relative smoothness of the bond and stock lines in Exhibit 3, and by the standard deviations (a measure of risk) in Exhibit 4.

The risk of a bond is proportionate to its duration (see section II-A-3). Thus, long-term bonds have more interest-rate risk than shorter-term bonds.

Risks of cash. Cash and very short-term bonds do not experience these market-value fluctuations due to interest rate changes, so they are viewed as less risky by investors with a short time horizon. Over longer time horizons, however, they are somewhat risky because the interest rates (not the market values) fluctuate, and may earn a return lower than the inflation rate over long periods, as they did in the 1970 s. This causes a decline in the real value, or purchasing power, of the funds invested in cash.

4. Summary

We have seen that stocks have historically outperformed all other major asset classes, and can be expected to continue to do so — but they also have more risk than other assets. Despite their risk, stocks are the only major asset class that has the potential for substantial capital growth over time. This is because participating in the growth and profitability of businesses is inherently more rewarding than merely lending money (which is what bond and cash investors do). Some stock enthusiasts summarize this concept in rhyme by saying, It is better to be an owner than a loaner. This is correct to the extent that one can tolerate the ups and downs of being an owner. The institutional investor s task is to find the proper balance between owning and loaning, between the potential for growth and the need for safety. We now turn our attention to achieving this balance.

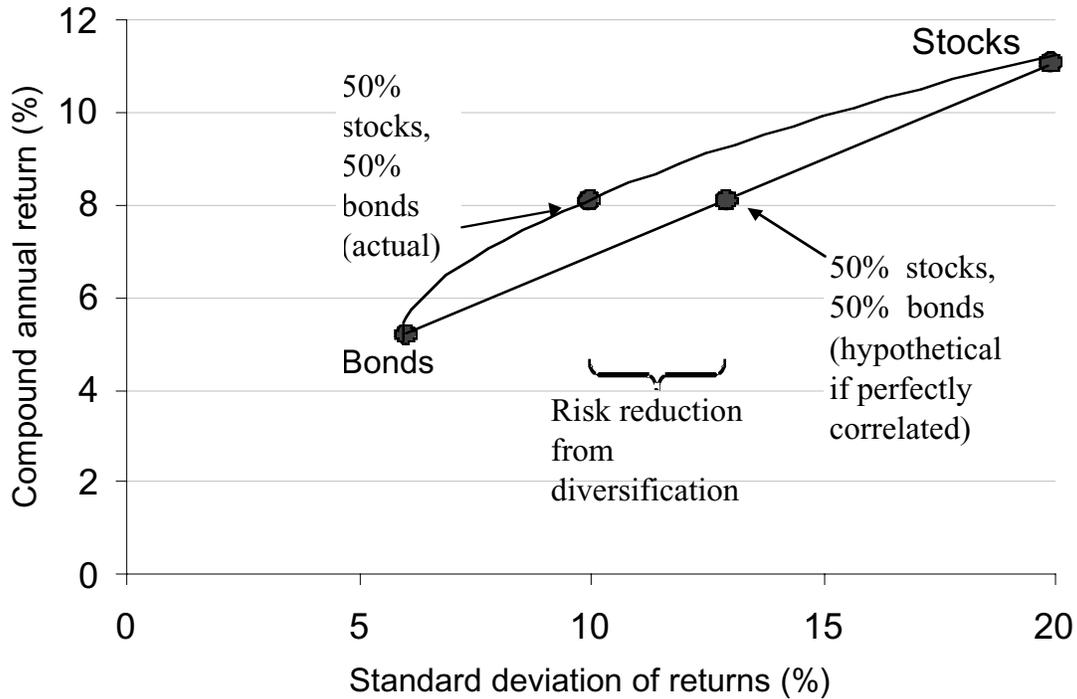
C. Risk reduction from diversification

Because asset classes do not move up and down together, the risk of an overall investment program can be reduced by holding more than one asset class. While this is obvious to many investors, a brief review of the formal principles underlying asset-class diversification may be helpful.

Exhibit 5 is a graph of the historical risk and return of stocks and bonds. On the vertical axis, we show the compound annual return of each asset class over 1926-2000,¹¹ expressed in percent per year. On the horizontal axis, we show the standard deviation of returns; this is a statistical measure of risk, and is also expressed in percent per year. As you can see, the stock market had

¹¹ While one could update this chart every year as new market returns arrive, it is not necessary to do so because the chart is intended only to illustrate the principle of risk reduction from diversification, not to provide specific investment advice.

Exhibit 5
Risk Reduction from Diversification



both more return and more risk than the bond market. Although this graph covers a historical period, future returns and risks should be roughly similar to those that occurred in the past.

If holding both stocks and bonds provided no risk reduction from diversification, then a portfolio containing 50% in stocks and 50% in bonds would be located at point A on the graph. That is, the return would be halfway between that of stocks and bonds, and the risk would also be halfway between that of stocks and bonds (13.7%). However, the actual risk of a portfolio containing 50% in stocks and 50% in bonds over 1926-1996 was substantially less than that (11.2%), and is shown at point B. The difference in risk between point A and point B is the gain from diversification, and is caused by the fact that stock and bond movements sometimes tend to cancel each other out and make the portfolio less risky.

The principle that holding more than one asset reduces risk is the cornerstone of investment management. Investment management always seeks a balance between seeking high returns and limiting risk. Viewed from the present looking forward, a diversified portfolio always provides the best combination of risk and return, since we do not know what securities (or asset classes) will be the best performers. After the fact, of course, there will be a single highest-returning security, which would have beat a diversified portfolio by a large margin. This does not mean the investment manager should have invested in that security. It would have been unacceptably

risky to do so. Because investing requires forecasts of the future, and because all such forecasts involve uncertainty, it is always best to diversify.

Referring once more to Exhibit 5, the curved line (sometimes called the efficient frontier) represents all the possible combination of stocks and bonds that the investor might choose. Now, which combination should be chosen? The answer depends on the investor's return requirements, risk tolerance, and time horizon. We cover these issues, and present a framework for choosing an appropriate mix of stocks and bonds, in the next section.

D. Selecting an asset mix for an investment fund

By far the most important asset-allocation decision is how much to hold in equities (that is, in all categories of stocks combined, including real estate and private equity if any) and how much in fixed income (that is, all forms of bonds and cash combined). After that decision has been made, one can then allocate within asset classes.

1. Equities versus fixed income

The investor should not rely on any single approach to arrive at the right proportion in equities. We recommend combining:

- Risk targeting, and
- Peer group analysis.

a. Risk-target method

The risk-target method sets the equity/fixed income allocation according to the amount of risk the institution can tolerate. Exhibit 6 shows the risk of a variety of asset mixes, using realistic assumptions. In the first line of the exhibit, risk is expressed as the probability of losing 10% or more in one year. In the second line of the exhibit, risk is defined as the probability, over five years, of beating a benchmark or hypothetical asset returning the inflation rate plus 5% annually. Note that risk, as defined in the first line, *increases* as the proportion in equities rises, because equities are more volatile than bonds; in contrast, when risk takes on the definition in the second line, risk *decreases* as the proportion in equities rises, because equities have higher average returns.

Based on the risk estimates in Exhibit 6, or on risk estimates provided by a consultant, the investment committee must decide how much risk can be tolerated. In making this decision, the committee should take into account the investment time horizon, discussed in greater detail below. The committee should moreover keep in mind that riskier mixes are likely to earn higher rates of return over the long run — but that the higher returns *are not guaranteed*.

Exhibit 6
How much in equities? Risk target approach

	Percent in Equities										
	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>	<u>100</u>
Probability of losing >10% in 1 year	≈0	≈0	.01	.02	.03	.04	.05	.06	.07	.08	.11
Probability of beating inflation + 5% over 5 years	.19	.22	.26	.35	.43	.52	.60	.66	.68	.72	.73

Time horizon. One of the most important factors in determining how much risk can be tolerated is the time period over which investments are expected to be held. Common sense dictates that an individual investor saving to make a required tax payment next April 15 should invest more conservatively than the same investor saving for a distant retirement. Likewise, when an institution is investing to meet a precisely defined short-term need, the investment approach should be more conservative than when the endowment is intended to be perpetual. In either case, if market returns disappoint, the short-term investor has less opportunity to make up losses by, say, taking a second job (if an individual) or asking for additional funding (if an institution).

It is difficult to quantify the impact that time horizon should have on the risk-tolerance decision; some impressionistic guidelines follow. Assets that are intended to be spent in a year or two should be invested only in cash and short-term bonds. As the investment horizon lengthens beyond two years, there should be a gradual increase in the risk tolerance so that intermediate-term bonds, equities in small amounts, and finally equities in larger amounts are admitted to the mix. Assets that are intended to be held for 20 years or more can be considered perpetual; for reference, the average allocation to equities in perpetual funds in the U.S. is a little over 60%.

For endowed institutions with a specified spending rate, a useful rule of thumb is to estimate the investment time horizon by taking the reciprocal of the spending rate. Thus an institution that intends to spend 5% of the current market value of its portfolio in the next year can be thought of as having a 20-year horizon. This rule is applicable even if the institution expects to receive new money, since (as with individuals) spending tends to rise in proportion to the funds available.

b. Peer groups

Either as a reality check on the risk method or as a primary source of guidance, an institution should look at what other institutions are doing. Data are available on the allocation, to equities and other asset classes, of leading endowed institutions as well as of related pools of assets such as pension funds.

The task incumbent on the investor using this method is to ask: What is different about my situation? Differences among funds include those of time horizon, risk tolerance, expenses, fund raising, and receipts from non-charitable sources (such as tuition or hospital charges). Based on an assessment of the organization's needs and preferences, the investment committee and/or its consultant should come to a decision on how its equity allocation should differ (up or down) from the then-prevailing practice as revealed by survey data.

Some readers may accuse us of encouraging uncreative herd behavior when we suggest keeping an eye on one's peer group. However, it is only by this means that one can avail himself or herself of the collective wisdom of experienced board, investment committee, and staff members trained in the profession of investment management. The biggest danger to new investors is not of being too close to one's peer group, but (because of lack of attention or because one wishes to forge one's own unique path to riches) of being too far away.

The investor using peer group comparisons for asset-allocation guidance should note that many established institutions have adopted quite aggressive investment policies. Many of these policies involve the use of private equity, hedge funds, and other alternative investments. If a newly-funded institution is going to differ from the peer group allocation in a substantial way, it is probably better to err on the side of a less aggressive policy — and to keep it simple.

2. Asset allocation within equities

Once the equity/fixed income mix has been established, the investment committee must determine the proportions in U.S., developed international, and emerging markets. While the market capitalization of the U.S. is only about half the world total, almost all U.S.-based investors have 60% or more of their equities in U.S. stocks, and a majority has more than 80%. As mentioned in section II-A, however, most investors should have some international exposure because:

- Diversification (risk-reduction) benefits can be obtained by investing in more than one country
- Business cycles outside the U.S. can be out of phase with the U.S. cycle
- Restructuring of international companies can provide growth opportunities
- Unique companies exist outside the U.S. (international managers often focus on these when investing money for U.S. clients)

There is no simple formula for deciding the percentage in international stocks. Investment committees must make this decision for their institutions.

3. Asset allocation within fixed income

Most institutions can afford to take the very slight risk of holding a fixed-income portfolio that does not just contain U.S. Treasury bonds, which are the safest and which consequently have the lowest yields. Corporate and mortgage bonds should also be in the mix. Typically, a single manager or mutual fund is employed to invest assets in all these fixed-income sectors. If the institution chooses to participate in other sectors (high yield, international, etc.) mentioned in section II-A, another manager or fund may need to be selected.

As noted earlier (but this bears repeating), an intermediate duration should usually be targeted for the fixed-income fund.¹² The selected manager should receive these instructions from the investment committee. If a mutual fund is used, one with an intermediate duration should be chosen.

For the purposes of this discussion, the allocation to cash has been counted within fixed income. Some institutions will want to treat cash as a separate asset class and designate a separate manager (typically the institution's bank or a money market fund). If cash is treated purely as a source of liquidity for spending, it is sufficient to keep a few months' expenses in cash. A larger allocation would represent a strategic decision to hold cash for its return and risk-reduction characteristics.

E. Changes in the asset mix

Once the asset mix has been determined, the investment committee needs to monitor the mix on at least an annual basis, and preferably quarterly. Changes in the mix can be motivated by:

- Market movement
- Drawdowns or new money
- New risk/return/correlation estimates
- Changing institutional needs and preferences (mainly spending rate and risk tolerance)
- New asset classes

When a significant (say, 5% or more) deviation from the overall equity/fixed income policy mix occurs, the portfolio should be rebalanced to the policy mix. Deviations occur not only when markets move, but also when fund flows cause cash, donated stock, etc. to build up in the account or become depleted from the account.

¹² If the investor's time horizon is very short, say 2 years or less, a short duration should be targeted instead. We can think of almost no circumstances when a long duration (more than 5 years) should be targeted.

In addition, if there is a change in institutional needs and preferences, such as the spending rate, time horizon, or risk tolerance, an asset shift may be required. We recommend that institutions revisit their asset-allocation policy every two years to incorporate into their decision-making any changes in needs and preferences that may have occurred.

Finally, as market conditions change, the asset mix may also need to be changed; if, for example, Treasury-bond yields rose to 7% with little or no increase in inflation, bonds would be much more attractive. One could invest mainly in bonds and still meet the 5.2% spending requirement in our earlier example, and the investment committee should at least consider this to be an opportunity to reduce the risk (that is, the percentage in stocks) of the portfolio.

The introduction of new asset classes should also be an occasion to revisit the asset-allocation decision. An example is the introduction of inflation-linked bonds by the U.S. Treasury in 1997. These bonds gave U.S. investors an opportunity, for the first time, to buy a default-free domestic instrument that hedges against inflation while simultaneously providing a modest level of interest income. Because inflation is one of the chief enemies of endowed institutions' continued prosperity, some of these institutions took this opportunity to re-examine their asset mix and move some money from the traditional bond market to this new type of bond.

III. MANAGER SELECTION AND FUND ADMINISTRATION

A. Fund structure

Before selecting specific managers for each asset class, the investment committee needs to decide:

- Whether to manage all assets using a balanced account, or select a manager for each asset class

Then, if the latter course is chosen, the committee needs to decide, for each asset class:

- Whether to use active managers or index funds
- Whether to use one manager or several
- Whether to invest using a separate account, commingled account, or mutual fund

1. Balanced account vs. asset-class accounts

The use of a balanced account greatly simplifies the investment committee's job, but imposes some limitations on the way the portfolio is managed. Exhibit 7 shows pros and cons of a balanced-account structure:

Exhibit 7	
Advantages and Disadvantages of Balanced Accounts	
<u>Advantages</u>	<u>Disadvantages</u>
Simplicity of having only one manager relationship	Manager controls asset allocation (within guidelines provided by investor)
All assets consolidated on one statement	Desirable asset classes may be missing from mix
Manager provides performance measurement for whole fund	
Manager may provide performance evaluation and risk assessment for whole fund	

Note that if there are multiple managers, the performance measurement and evaluation tasks need to be performed by someone (usually the custodian¹³ or consultant, but occasionally an internal accountant or other member of the endowed organization's staff) having access to information on all the portfolios.¹⁴ Thus a balanced manager structure can achieve considerable savings of cost and effort. Moreover, an organization with limited staff can obviously benefit from having to conduct only one manager search.

As noted in section II-A-5, problems with relinquishing control over the asset allocation can be partially resolved by giving clear written instructions to the balanced manager, if the account in question is a separate account (see below). If the account in question is a commingled or mutual fund, the investor must choose the fund carefully to match his or her asset allocation requirements. In either case, the investor must monitor the asset allocation of the fund on an ongoing basis to make sure the asset mix remains consistent with the institution's goals.

¹³ The custodian is a bank, broker, or investment manager assigned the fiduciary responsibility of making sure that the assets are safely kept.

¹⁴ Performance *measurement* and *evaluation* are different. Performance measurement is the process of calculating accurate rates of return on each portfolio and on the total fund. Performance evaluation is the process of comparing these returns to benchmarks consisting of indices representing the asset class(es) in which the fund is invested, to determine if the manager is achieving his stated goals. Performance evaluation may also include comparing the fund's returns to those of other funds with a similar asset mix, similar risks, and other characteristics.

With a separate account, the problem of desirable assets (say, international stocks) being absent from a balanced account can usually be avoided by including all desired assets in the manager's mandate from the beginning. Terms and conditions of the account can also be modified after the account has been established. If the account in question is a commingled or mutual fund, the investor can add a second (third, etc.) fund to provide exposure to the missing assets, but the simplicity of a single-manager relationship would be sacrificed.

2. Active management versus indexing

The conceptual arguments regarding active management and indexing are made in section II-A-2. On the practical side, indexing is easier for the investor undertaking a manager search because all of the index-fund managers in a given asset class earn almost exactly the same return — the return on the index. Thus the search process becomes a matter of deciding which index-fund manager offers the best customer-support services and charges the most reasonable fees. The search for active managers must, of course, include judgment as to which manager (or pool of managers) is most likely to outperform the index while taking a reasonable level of active-management risk.¹⁵

The active-versus-index fund decision can, of course, differ from one asset class to another. For example, some investors index the U.S. large-stock fund, while hiring active managers for international and small stocks, because (these investors believe) the latter markets are priced less efficiently, making it easier for managers to beat the index in those markets.

3. One manager versus several

If the balanced-account structure is not chosen, most institutions under discussion in this paper are best served by hiring only one manager per major asset class. The advantages from having more than one (say) U.S. stock manager are outweighed by the disadvantage of additional fees and complexity, unless the institution has a strong internal investment staff.

Consultants sometimes advise institutions, including small ones, to invest in each major style of equities — large growth, small value, and so forth — as well as in a large number of other types of funds. The investor should be on guard against such advice, because the consultant can charge an incremental fee for performing the measurement, evaluation, and other administrative work that comes from such a structure. Simpler is better.

¹⁵ Active-management risk (sometimes called tracking risk or tracking error) is the risk caused by the manager selecting a portfolio that has returns different from those of the relevant benchmark or index.

4. Ownership structure (separate account, commingled fund, mutual fund)

There are three principal types of investment account in which the institutions under discussion in this paper can participate:

- Separate account -- an investment account owned exclusively by one investor. The investor enters into a written agreement with the manager, specifying the manner in which funds are to be invested. The agreement can give as much or as little discretion to the manner as the two parties agree on. A separate account is especially useful when the investor wants to impose special restrictions, such as social criteria or avoidance of a particular stock (say, one controlled by the donor). When modest amounts of money are invested, fees for separate accounts are higher than for other types of accounts. However, fees are typically negotiable, and may come down quickly (in percentage terms) as the amount of money invested rises.
- Commingled account -- an investment account in which ownership is shared among numerous investors. Each investor receives a *pro rata* share of each of the securities bought for the portfolios. An investor's position in a commingled account is established by a written manager agreement, but there are fewer degrees of freedom than with a separate account. The chief advantage of a commingled account is reduced fees for small investors.
- Mutual fund -- a type of commingled account offered to the public. The investor buys shares in the fund, which in turn convey a *pro rata* interest in each of the securities held by the fund. The chief advantages of mutual funds are (1) a very wide selection of pre-packaged products, with widely disseminated information about each;¹⁶ and (2) a small minimum investment requirement. In general, only *true no-load* funds should be considered. These are funds that charge only an annual management fee, and that have no sales charge. Sales charges can be included in either up-front load (charged upon purchase of the fund) a back-end load (charged upon sale), or added to the annual management fee (in the form of a 12-b-1 charge) — all should be avoided.

¹⁶ See our earlier note on Morningstar.

B. Evaluating and hiring managers

The steps involved in selecting a manager for a given asset class (or in selecting a balanced-account manager) are:

- Compile list of candidates with suitable profile
- Reduce list to 2 or 3 finalists
- Interview finalists
- Make selection
- Negotiate fees (to the extent possible) and conclude manager agreement
- Transfer funds

1. Compile list of candidates

A list of firms offering investment management services in a given asset class is available from numerous sources, including several found in large public and academic libraries.¹⁷ While it is not necessary to restrict the search to either prestigious or household names, doing so may make the effort less daunting. A consultant, if one has been retained, can compile the candidate list.¹⁸

2. Reduce candidate list

With the consultant's assistance, the investment committee should consider several factors in reducing a potentially extensive candidate list to a short list of 2 or 3 finalists. These factors include the three P's — people, process, and performance — as well as other considerations:

- People

It should go without saying that the firm's staff should be highly skilled, with substantial relevant experience and education. This can be discerned to some extent in the firm's marketing materials, although more information will surface in an interview.

A firm that can retain its investment professionals is much to be desired. For an index-fund manager, or one whose process is quantitative and systematic (relying more on computer-based models than on human judgment), the retention of key people over long periods of time is less important, but is still an indicator of whether the firm is a quality operation. For a firm whose claims of superior performance are tied to the track record of

¹⁷ *The Money Market Directory of Pension Funds and their Investment Managers*, Standard & Poor's (a division of McGraw-Hill, New York, annual) 320 East Main Street, Charlottesville, VA 22902 phone (800) 446-2810; *Nelson's Directory of Investment Managers*, Nelson Information, One Gateway Plaza, Port Chester, New York 10573; phone 800-333-6357 or (914) 937-8400; <http://www.nelnet.com>.

¹⁸ The investor seeking index funds will find the compilation of a candidate list greatly simplified, because the index-fund business is dominated by a few large firms.

specific individuals, it is absolutely necessary that these people are with the firm and that incentives are provided to keep them in the future.

Some investors are concerned that the compensation schemes of investment management firms too often tie pay to the dollar amount of assets gathered, not to investment performance. It probably helps the investor for key employees to be paid for performance, but in our experience it is difficult to determine how employees are rewarded, and compensation schemes should not be a key criterion in screening management firms.

Finally, a firm that has been in operation for a long time has attracted and retained the loyalty of customers, a desirable achievement in any business.

- Process

The process by which the firm decides what securities to buy should be clearly explained, in terms that make sense to the investor. Many types of investment process are used, including fundamental, quantitative, and technical (supply-and-demand) analysis; bottom-up stock picking versus top-down analysis of industry, consumer, and macroeconomic trends; and so forth. The categories usually overlap to some extent. We have no strong recommendation for one process over another, except that reliance on technical analysis with no other inputs is likely to be a fruitless approach. It may be difficult to gain much insight into the process other than at the interview.

Investors should find out whether the manager uses derivatives; such exposure is generally inadvisable unless it can be carefully monitored by the organization's investment staff. One exception is currency hedging of international funds, which is an acceptable and conservative investment strategy; the currency forward contracts used to hedge are sometimes considered to be derivatives. Large investment firms generally have some accounts in which derivatives are used; in a separate account structure, the endowed institution can instruct the manager not to use them for their account.

Finally, the investor should find out whether the manager typically has a substantial cash position, or keeps funds fully invested in the mandated asset class. We favor the fully-invested approach; the investor (not the manager) should decide how much cash to keep in reserve.

- Performance

By performance we mean the historical rate of return on the manager's investment accounts with mandates similar to the one being contemplated in terms of asset-class exposure and risk. Only long-term performance is useful for selecting managers; 3, 5, and 10-year manager returns, with comparisons to relevant benchmarks, are appropriate for this purpose. Investment managers cannot work miracles, and a 2% annual return in excess of the benchmark over a 10-year period is considered stellar performance.

Endowed institutions should generally *not* choose the manager(s) with the best performance. Consistency — good performance in both up and down markets, with no large deviations from the benchmark — is much more important than occasional home runs. High

but inconsistent performance is more often due to luck, or to taking an unacceptable level of risk, than to repeatable skill.

Consultants are of great help in evaluating performance, and in determining whether returns were earned consistently and with a risk level consistent with the investors' goals. In the absence of a consultant, the managers themselves will supply needed performance data, but managers can be counted on to provide a favorable impression of their performance and risk profile whether it is warranted or not.¹⁹ AIMR-compliant performance data have been calculated using methods approved by a professional organization, and are unlikely to contain any fudge factor making performance look better than it is. Most importantly, it should be kept in mind that past performance is no guarantee of future results.

- Size and geography

Many investors are most comfortable hiring a large, national or worldwide firm,²⁰ reasoning that these firms have grown large by doing their job well. Other investors are frustrated by the impersonality of large organizations and prefer a small or local one. Our experience is that the dollar amount under management makes little difference in the quality of services provided, except in small-company stocks and other specialized investment strategies where a smaller, more focused firm is better.²¹

- Fees

Fees are usually calculated as a percentage of assets under management, subject to a dollar minimum. All other things being equal, lower fees are better. An investor seeking strictly to minimize fees should employ index funds. If active management is desired, fees will be substantially higher, but the fund has at least a reasonable chance of outperforming the index. Active management results are not guaranteed — if the fund performs poorly, fees will be charged anyway! Fees are usually negotiable (except with mutual funds), and nonprofit organizations should specifically ask for an eleemosynary discount and insist on paying no more than any other nonprofit client of comparable size.

A performance-based fee, or sliding scale wherein the firm participates in the profits of the investor, is sometimes offered to very large investors. Such an arrangement sounds good because (as managers describe it) the interests of the investor and manager are aligned. We fail to see how aligning these interests can affect anything, since the manager is presumably doing the best he can, even for a flat fee. A performance-based fee does, however, have the advantage that the investor does not have to pay much when performance is poor.

¹⁹ Investors seeking performance data on mutual funds can get the information from Morningstar (footnote 7).

²⁰ A large firm is considered to be one with \$50 billion or more in assets. Firms with \$10-50 billion are medium sized. Firms under \$10 billion are small (sometimes called boutiques).

²¹ A small-company stock manager with billions of dollars under management in that asset class runs the risk of pushing up the prices of the stocks they buy, so that returns to the investor are dampened.

- Ancillary services

Services other than investment management that may be provided by management firms include:

- Performance measurement (that is, calculation of the return achieved by the fund)
- Performance evaluation and risk assessment (that is, comparison of fund returns to benchmarks and peer groups of managers with similar objectives)
- Attendance at board meetings
- Asset allocation and general investment advice
- Proxy voting
- Custody (that is, fiduciary responsibility for making sure the assets are safely kept with a bank, broker, or other qualified institution)

The ancillary services performed by an investment management firm can be a tie-breaker. One-stop access to some or all of these services can make the job of the investment committee or staff job dramatically easier, and can reduce dependence on consultants.

- Client list and references

It is usually best to work with an investment management firm that has other nonprofit endowments as clients — such a firm will tend to be aware of issues specific to that sector. If an otherwise desirable firm has no such clients, a strong list of corporate, public, and/or labor-union pension plans is a reasonable substitute. Always check at least one reference, asking:

- Has the client had performance that is close to the average for all of the manager's comparable accounts?
- Are performance reports and portfolio-contents reports accurate and understandable?
- Is customer service prompt and are problems resolved satisfactorily?
- What is the worst problem you have ever had with this manager?

Perhaps the most revealing reference check is with a client who fired the manager. Managers may or may not provide such a reference. Manager hirings and firings are documented in several newsletters and magazines.²²

²² *Pensions & Investments* (bi-weekly) is probably the best source; it is certainly the most affordable, and is in most libraries. It is published by Crain Communications, Inc. 740 Rush Street, Chicago, IL 60611-2590 phone (312) 649-5476 or (312) 649-5200; <http://www.pionline.com>.

- Type of organization

Many experienced investors believe that independent investment-advisory firms offer the best combination of skills, pay for employee performance, and absence of conflicts of interest. However, many outstanding investment managers have other structures — they are affiliates of commercial banks, insurance companies, or brokerages. In the rare instance of all other things being equal, we would tip the decision to the independent firm.

3. Interview firms and select a firm

The next step is to interview the finalists. As noted, information about people and process is best gathered at this stage. The manager should be prepared to field tough questions about performance, risk, client and personnel turnover, and negative comments made by references. We have generally found that an interview is more productive if a key decision-maker, such as the portfolio manager, director of research, or chief investment officer, is present along with the marketing representative.

4. Negotiate fees, define performance benchmarks, write manager agreement, transfer funds

Of these three steps, the one that requires the most comment is defining performance benchmarks. For the performance evaluation process to be fair to both manager and investor, an appropriate benchmark should be defined in advance. The benchmark should represent the broad asset class in which the manager is hired. For example, a manager hired to invest in the broad U.S. equity market (including small and mid-sized as well as large-capitalization stocks) should probably be benchmarked to the Russell[®]3000 or Wilshire 5000 index rather than the S&P 500.

Managers generally have pre-written manager agreements that merely need to be filled out. If special restrictions (social criteria, no donor stock, no derivatives, etc.) are required, the investor has to provide the necessary information. The investor may also be required to show documentation to prove an organization's tax-exempt status and to convey other information needed by the manager.

After the manager has been hired, the investor or consultant should check periodically to make sure requests of this nature are being honored.

Mutual funds do not employ manager agreements. An account application needs to be filled out, and additional documentation may be required as with other types of accounts.

C. Measuring performance and monitoring managers

The manager's performance reports are usually accurate and provide the basic information needed for evaluation, including return on the agreed-upon benchmark over various time periods. A consultant, if one has been retained, may want to perform his or her own calculations, or may simply compile reports supplied by the various managers and help interpret the investment results.

For actively managed accounts, performance consistently at or above the benchmark is to be hoped for, but no one can outperform all the time. Some investors impose a discipline on manager retention, terminating managers who have underperformed over a market cycle (usually 3, 4, or 5 years). While this is a reasonable approach, the cost of transition to a new manager should be weighed against the cost of keeping an existing, underperforming one. (Transition costs have been estimated at 1% to 2% of capital for core U.S. equity funds and twice that range for international and small-stock funds; the number should be lower for a bond fund.) Therefore, while we would not necessarily terminate a manager for poor performance, the following conditions should raise a red flag and would usually result in a termination:

- High turnover in senior investment staff
- Major change in investment process
- Problems with Securities and Exchange Commission or other legal authorities
- Change in ownership

For index fund accounts, the goal is close tracking of the benchmark and low costs. An S&P 500 index fund should track within 0.1% per year, except for S&P 500 index mutual funds in which cash held in reserve for redemptions may cause greater underperformance in big up years. Funds indexed to other benchmarks, especially international and small-stock benchmarks, tend to have more tracking error due to the difficulty of remaining fully invested in all the securities in the index. As with active managers, a passive manager should be monitored for the kinds of organizational problems referred to above.

D. Evaluating total fund returns

Endowed institutions need to monitor themselves as well as their managers, because they are responsible for the asset allocation decision. This is true even where a balanced manager is hired.

A periodic check is needed to make sure the basic goals of the investment program are being met. These may include earning a return equal to the institution's required return as determined by spending policy; capital growth in real terms; and avoiding excessive risk or volatility. However,

the institution should be reminded that it is to some extent at the mercy of the markets, and that no one with market exposure has good results in absolute terms when all asset classes are down. It is tempting for any institution or individual to cut back on equities, and other risk-bearing investments, when these have not performed well, and to increase them when they have been rewarding. Investors should resist these temptations because they can prove very costly. The best policy is generally to rebalance to the policy mix, which means increasing the equity weight when markets have fallen, and decreasing the equity weight after a rise.