CHAPTER 1

Overview of Investment Management

Investment management is the process of managing money. Other terms commonly used to describe this process are *portfolio management*, *asset management*, and *money management*. Accordingly, the individual who manages a portfolio of investments is referred to as an investment manager, portfolio manager, asset manager, or money manager. We will use these terms interchangeably throughout this book. In industry jargon, an investment manager "runs money." The investment process requires an understanding of the various investment vehicles, the way these investment vehicles are valued, and the various strategies that can be used to select the investment vehicles that should be included in a portfolio in order to accomplish investment objectives.

Investors can be classified as either individual investors or institutional investors. The purpose of this book is to describe the process of investment management—that is, how investment managers run money. Our primary focus in this book is on the management of institutional investors' portfolios, although the basic principles of are applicable to retail investors as well. In practice, the management of portfolios for institutional investors is typically done by a portfolio team.

The *investment management* process involves the following major activities:

- Setting investment objectives
- Establishing an investment policy
- Selecting an investment strategy
- Constructing and monitoring the portfolio
- Measuring and evaluating investment performance

This is a cyclical process where performance evaluation may result in changes to the objectives, policies, strategies, and composition of a portfolio.

This chapter briefly describes these activities because it will allow us to see the major activities involved in managing a portfolio and, therefore, the significance of the topics that we describe in later chapters.

SETTING INVESTMENT OBJECTIVES

Setting investment objectives starts with a thorough analysis of the investment objectives of the entity whose funds are being managed. These entities can be classified as individual investors and institutional investors. Within each of these broad classifications is a wide range of investment objectives.

The objectives of an individual investor may be to accumulate funds to purchase a home or other major acquisition, to have sufficient funds to be able to retire at a specified age, or to accumulate funds to pay for college tuition for children. An individual investor may engage the services of a financial advisor/consultant in establishing investment objectives.

Institutional investors include:

- Pension funds
- Depository institutions (commercial banks, savings and loan associations, and credit unions)
- Insurance companies (life companies, property and casualty companies, and health companies)
- Regulated investment companies (mutual funds and closed-end funds)
- Hedge funds
- Endowments and foundations
- Treasury department of corporations, municipal governments, and government agencies

Classification of Investment Objectives

In general we can classify the investment objectives of institutional investors into the following two broad categories:

1. Nonliability-driven objectives
2. Liability-driven objectives

As the name indicates, those institutional investors that fall into the first category can manage their assets without regard to satisfying any liabilities. An example of an institutional investor that is not driven by liabilities is a regulated investment company.

The second category includes institutional investors that must meet contractually specified liabilities. A *liability* is a cash outlay that must be made at a specific future date in order to satisfy the contractual terms of an obligation. An institutional investor is concerned with both the *amount* and *timing* of liabilities, because its assets must produce the cash flow to meet any payments it has promised to make in a timely way. Here are two examples of institutional investors that face liabilities:

- Life insurance companies have a wide range of investment-oriented products. One such product is a *guaranteed investment contract* (GIC). For this product, a life insurance company guarantees an interest rate on the funds given it to by a customer. With respect to the GIC account, the investment objective of the asset manager is to earn a return greater than the rate guaranteed.
- There are two types of pension plans offered by sponsors. The sponsor can be a corporation, a state government, or local government. The two types of pension plans that can be sponsored are a defined contribution or a defined benefit plan. For defined contribution plans, the sponsor need only provide a specified amount for an employee to invest and the employee is responsible for investing those funds. The plan sponsor has no further obligation. However, in the case of a defined benefit plan, the plan sponsor has agreed to make specified payments to the employee after retirement. Thus, the plan sponsor has created a liability against itself and in managing the assets of the pension plan, the asset manager must earn a return adequate to meet those future pension liabilities.

Keep in mind that some institutional investors may have accounts that have both nonliability-driven objectives and liability-driven objectives. For example, a life insurance company may have a GIC account (which as explained above is a liability-driven objective product) and a variable annuity account. With a variable annuity account, an investor makes either a single payment or a series of payment to the life insurance company and in turn the life insurance company (1) invests the payments received and (2) makes payments to the investor at some future date. The payments that the life insurance company makes will depend on the performance of the insurance company's asset manager. While the life insurance company does have a liability, it does not guarantee any specific dollar payment.

Benchmark

Regardless of the type of investment objective, to evaluate the performance of an asset manager, a *benchmark* will be established. The determination of

a benchmark is in some cases, fairly simple. For example, in the case of a liability-driven objective, the benchmark is typically an interest rate target. In the case of a nonliability-driven objective, the benchmark is typically the asset class in which the assets are invested. For example, later in this chapter we describe the major asset classes. One such asset class is large capitalization stocks. There are several benchmarks for that asset class and the client and asset manager will jointly determine which one to use.

It is not always simple to determine the benchmark. A client and the asset manager may decide to develop a customized benchmark.

ESTABLISHING AN INVESTMENT POLICY

The second major activity in the investment management process is establishing policy guidelines to satisfy the investment objectives. Setting policy begins with the *asset allocation decision*. That is, a decision must be made as to how the funds to be invested should be distributed among the major asset classes.

The term "asset allocation" means different things to different people in different contexts. Arnott and Fabozzi (1992) divide asset allocation into three types: (1) policy asset allocation, (2) dynamic asset allocation, and (3) tactical asset allocation. The *policy asset allocation decision* can loosely be characterized as a long-term asset allocation decision, in which the investor seeks to assess an appropriate long-term "normal" asset mix that represents an ideal blend of controlled risk and enhanced return. The strategies that offer the greatest prospects for strong long-term rewards to accomplish the investment objectives tend to be inherently risky strategies. The strategies that offer the greatest safety tend to offer only modest return opportunities. The balancing of these conflicting goals is what is referred to as the policy asset allocation. In *dynamic asset allocation* the asset mix (i.e., the allocation amongst the asset classes) is mechanistically shifted in response to changing market conditions.

Once the policy asset allocation has been established, the investor can turn attention to the possibility of active departures from the normal asset mix established by policy. That is, suppose that the long-run asset mix is established as 60% equities and 40% bonds. A departure from this mix under certain circumstances may be permitted. If a decision to deviate from this mix is based upon rigorous objective measures of value, it is often called *tactical asset allocation*. Tactical asset allocation is not a single, clearly defined strategy.

Many variations and nuances are involved in building a tactical allocation process. One of the problems in reviewing the concepts of asset alloca-

tion is that the same terms are often used for different concepts. The term "dynamic asset allocation" has been used to refer to the long-term policy decision and to intermediate-term efforts to strategically position the portfolio to benefit from major market moves, as well as to refer to aggressive tactical strategies. Even the words "normal asset allocation" convey a stability that is not consistent with the real world. As an investor's risk expectations and tolerance for risk change, the normal or policy asset allocation may change. It is critical in exploring asset allocation issues to know what element of the asset allocation decision is the subject of discussion, and to know in what context the words "asset allocation" are being used.

Tactical asset allocation broadly refers to active strategies that seek to enhance performance by opportunistically shifting the asset mix of a portfolio in response to the changing patterns of reward available in the capital markets. Notably, tactical asset allocation tends to refer to disciplined processes for evaluating prospective rates of return on various asset classes and establishing an asset allocation response intended to capture higher rewards.

Asset Classes

In most developed countries, the four major asset classes are (1) common stocks, (2) bonds, (3) cash equivalents, and (4) real estate. Why are they referred to asset classes? That is, how do we define an asset class? There are several ways to do so. The first is in terms of the investment attributes that the members of an asset class have in common. These investment characteristics include (1) the major economic factors that influence the value of the asset class and, as a result, correlate highly with the returns of each member included in the asset class; (2) have a similar risk and return characteristic; and (3) have a common legal or regulatory structure. Based on this way of defining an asset class, the correlation between the returns of different asset classes would be low.

Kritzman (1999) offers a second way of defining an asset class based simply on a group of assets that is treated as an asset class by asset managers. He writes

> . . . some investments take on the status of an asset class simply because the managers of these assets promote them as an asset class. They believe that investors will be more inclined to allocate funds to their products if they are viewed as an asset class rather than merely as an investment strategy. (Kritzman 1999, 79)

Kritzman then goes on to propose criteria for determining asset class status which includes the attributes that we mentioned above and that will be described in more detail in later chapters.

Based on these two ways of defining asset classes, the four major asset classes above can be extended to create other asset classes. From the perspective of a U.S. investor, for example, the four major asset classes listed earlier have been expanded as follows by separating foreign securities from U.S. securities: (1) U.S. common stocks, (2) non-U.S. (or foreign) common stocks, (3) U.S. bonds, (4) non-U.S. bonds, (5) cash equivalents, and (6) real estate.

Common stock and bonds are commonly further partitioned into more asset classes. For U.S. common stocks (also referred to as U.S. equities), the following are classified as asset classes in two ways:

1. *Market capitalization*, that is, large capitalization stocks (more than $10 billion), mid-capitalization stocks (between $2 billion and $10 billion), and small capitalization stocks (between $300 million and $2 billion)
2. Growth stocks and value stocks

The market capitalization of a firm is the total market value of its common stock outstanding. For example, suppose that a corporation has 300 million shares of common stock outstanding and each share has a market value of $40. Then the market capitalization of this company is $12 billion (300 million shares times $40 per share). A firm's market capitalization is commonly referred to as its *market cap*.

While the market cap of a company is easy to determine given the market price per share and the number of shares outstanding, how does one define "value" and "growth" stocks? We describe how this done in Chapter 7.

For U.S. bonds, also referred to as fixed income securities, the following are classified as asset classes: (1) U.S. government bonds, (2) corporate bonds, (3) U.S. municipal bonds (i.e., state and local bonds), (4) residential mortgage-backed securities, (5) commercial mortgage-backed securities, and (6) asset-backed securities. In turn, several of these asset classes are further segmented by the credit rating of the issuer. (We discuss credit ratings in Chapter 16.) For example, for corporate bonds, investment-grade (i.e., high credit quality) corporate bonds and non-investment grade corporate bonds (i.e., speculative quality) are treated as two asset classes.

For non-U.S. stocks and bonds, the following are classified as asset classes: (1) developed market foreign stocks, (2) developed market foreign bonds, (3) emerging market foreign stocks, and (4) emerging market foreign bonds. The characteristics that market participants use to describe emerging markets is that the countries in this group:

- Have economies that are in transition but have started implementing political, economic, and financial market reforms in order to participate in the global capital market.
- May expose investors to significant price volatility attributable to political risk and the unstable value of their currency.
- Have a short period over which their financial markets have operated.

Loucks, Penicook, and Schillhorn (2008, 340) describe what is meant by an emerging market as follows:

> Emerging market issuers rely on international investors for capital. Emerging markets cannot finance their fiscal deficits domestically because domestic capital markets are poorly developed and local investors are unable or unwilling to lend to the government. Although emerging market issuers differ greatly in terms of credit risk, dependence on foreign capital is the most basic characteristic of the asset class.

With the exception of real estate, all of the asset classes we have identified above are referred to as *traditional asset classes*. Real estate and all other asset classes that are not in the above list are referred to as *nontraditional asset classes* or *alternative asset classes*. They include hedge funds, private equity, and commodities, all of which we describe in Chapter 26.

Along with the designation of asset classes comes a barometer to be able to quantify the performance of the asset class—the risk, return, and the correlation of the return of the asset class with that of another asset class. The barometer is called a "benchmark index," "market index," or simply "index." An example would be the Standard & Poor's 500. We describe many more indexes in later chapters. The indexes are also used by investors to evaluate the performance of professional managers that they hire to manage their assets.

Investment Constraints

In the development of an investment policy, the following factors must be considered:

- Client constraints
- Regulatory constraints
- Tax considerations

Client-Imposed Constraints

Examples of client-imposed constraints would be restrictions that specify the types of securities in which a manager may invest and concentration limits on how much or little may be invested in a particular asset class or in a particular issuer. Where the objective is to meet the performance of a particular market or customized benchmark, there may be a restriction as to the degree to which the manager may deviate from some key characteristics of the benchmark.

For example, throughout this book we will discuss certain portfolio risk measures that are used to quantify different types of risk. The three major examples are tracking error risk for any type of asset class and market risk as measured by beta for a common stock portfolio and duration for a bond portfolio. These portfolio risk measures provide an estimate of the exposure of a portfolio to changes in key factors that affect the portfolio's performance—the market overall in the case of a portfolio's beta and the general level of interest rates in the case of a portfolio's duration.

Typically, a client will not set a specific value for the level of risk exposure. Instead, the client restriction may be in the form of a maximum on the level of the risk exposure or a permissible range for the risk measure relative to the benchmark. For example, a client may restrict the portfolio's duration to be +0.5 or –0.5 of the client-specified benchmark. Thus, if the duration of the client-imposed benchmark is 4, the manager has the discretion of constructing a portfolio with a duration between 3.5 and 4.5.

Regulatory Constraints

There are many types of regulatory constraints. These involve constraints on the asset classes that are permissible and concentration limits on investments. Moreover, in making the asset allocation decision, consideration must be given to any risk-based capital requirements. For depository institutions and insurance companies, the amount of statutory capital required is related to the quality of the assets in which the institution has invested. For example, for regulated investment management companies, there are restrictions on the amount of leverage that can be used.

Tax Considerations

Tax considerations are important for several reasons. First, certain institutional investors such as pension funds, endowments, and foundations are exempt from federal income taxation. Consequently, the asset classes in which they invest will not be those that are tax-advantaged investments.

Second, there are tax factors that must be incorporated into the investment policy. For example, while a pension fund might be tax-exempt, there may be certain assets or the use of some investment vehicles in which it invests whose earnings may be taxed.

SELECTING A PORTFOLIO STRATEGY

Selecting a portfolio strategy that is consistent with the investment objectives and investment policy guidelines of the client or institution is another major activity in the investment management process. Portfolio strategies can be classified as either active or passive.

An *active portfolio strategy* uses available information and forecasting techniques to seek a better performance than a portfolio that is simply diversified broadly. Essential to all active strategies are expectations about the factors that have been found to influence the performance of an asset class. For example, with active common stock strategies this may include forecasts of future earnings, dividends, or price/earnings ratios. With bond portfolios that are actively managed, expectations may involve forecasts of future interest rates and sector spreads. Active portfolio strategies involving foreign securities may require forecasts of local interest rates and exchange rates.

A *passive portfolio strategy* involves minimal expectational input, and instead relies on diversification to match the performance of some market index. In effect, a passive strategy assumes that the marketplace will efficiently reflect all available information in the price paid for securities. Between these extremes of active and passive strategies, several strategies have sprung up that have elements of both. For example, the core of a portfolio may be passively managed with the balance actively managed.

A useful way of thinking about active versus passive management is in terms of the following three activities performed by the manager: (1) portfolio construction (deciding on the stocks to buy and sell), (2) trading of securities, and (3) portfolio monitoring. Generally, active managers devote the majority of their time to portfolio construction. In contrast, with passive strategies managers devote less time to this activity.

In the bond area, there are several strategies classified as *structured portfolio strategies* that are a type of liability-driven strategy. A structured portfolio strategy is one in which a portfolio is designed to achieve the performance of some predetermined liabilities that must be paid out. These strategies are frequently used when trying to match the funds received from an investment portfolio to the future liabilities that must be paid and are therefore referred to as *liability-driven strategies*.

Given the choice among active and passive management, which should be selected? The answer depends on (1) the client's or money manager's view of how "price efficient" the market is, (2) the client's risk tolerance, and (3) the nature of the client's liabilities. By marketplace price efficiency, we mean how difficult it would be to earn a greater return than passive management after adjusting for the risk associated with a strategy and the transaction costs associated with implementing that strategy. In our discussion of secondary markets in Chapter 7, we will discuss the different forms of market efficiency.

CONSTRUCTING AND MONITORING THE PORTFOLIO

Once a portfolio strategy is selected, the investment manager must select the assets to be included in the portfolio. The following are involved in this major activity of the investment management process:

- Producing realistic and reasonable return expectations and forecasts
- Constructing an efficient portfolio
- Monitoring, controlling, and managing risk exposure
- Managing trading and transaction costs

In seeking to produce realistic and reasonable return expectations, the investment manager has several tools available that we describe in this book. An active portfolio manager will seek to identify mispriced securities or market sectors. This information is then used as inputs to construct an *efficient portfolio*. An efficient portfolio is defined as a portfolio that offers the greatest expected return for a given level of risk or, equivalently, the lowest risk for a given expected return. The specific meaning of return and risk cannot be provided at this time. As we develop our understanding of investment management throughout this book, we will be able to quantify what we mean by these terms.

Once a portfolio is constructed, the investment manager must monitor the portfolio to determine how the portfolio's risk exposure may have changed given prevailing market conditions and information about the assets in the portfolio. The current portfolio may no longer be efficient and, as a result, the investment manager is likely to rebalance the portfolio in order to produce an efficient portfolio.

Transaction costs critically impact performance and we discuss them in Chapter 12. They must be considered not only in the initial construction of the portfolio but when the portfolio must be rebalanced.

MEASURING AND EVALUATING PERFORMANCE

The measurement and evaluation of investment performance involves two activities. The first activity is performance measurement, which involves properly calculating the return realized by an investment manager over some time interval referred to as the *evaluation period*. It may seem that this would be a straightforward calculation, but, as we will see in Chapter 7, there are several important issues that must be addressed in developing a methodology for calculating a portfolio's return. Different methodologies can lead to quite disparate results, making it difficult to compare the relative performance of different investment managers.

The second activity is performance evaluation which is concerned with two issues: (1) determining whether the investment manager added value by outperforming the established benchmark and (2) determining how the investment manager achieved the calculated return. For example, in Part Two of this book we describe several strategies the manager of a stock portfolio can employ. Did the investment manager achieve the return by market timing, by buying undervalued stocks, by buying low-capitalization stocks, by overweighting specific industries, and so on? The decomposition of the performance results to explain the reasons why those results were achieved is called *performance attribution analysis*. Moreover, performance evaluation requires the determination of whether the asset manager achieved superior performance (i.e., added value) by skill or by luck.

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