MANAGING INVESTMENT PORTFOLIOS

A DYNAMIC PROCESS
CFA Institute is the premier association for investment professionals around the world, with over 85,000 members in 129 countries. Since 1963 the organization has developed and administered the renowned Chartered Financial Analyst® Program. With a rich history of leading the investment profession, CFA Institute has set the highest standards in ethics, education, and professional excellence within the global investment community, and is the foremost authority on investment profession conduct and practice.

Each book in the CFA Institute Investment Series is geared toward industry practitioners along with graduate-level finance students and covers the most important topics in the industry. The authors of these cutting-edge books are themselves industry professionals and academics and bring their wealth of knowledge and expertise to this series.
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In 1934, my father formed a small investment management firm based on his unshakeable conviction that the stock market had touched a historic bottom and great profitable opportunities were there for the picking. When friends would ask him how the business was going, he always replied, “We have some nice portfolios over there.” I was a young boy at the time, and this repeated reference to “nice portfolios” led me to believe my father was in the business of selling briefcases and that kind of thing. What that had to do with the stock market was beyond me.

Years later, I went to work at my father’s firm during one summer vacation from college. Then I began to appreciate what he was talking about when he kept referring to portfolios. I have been impressed ever since with my father’s use of the word portfolio as early as 1934 and his emphasis on the portfolio in the investment process at this firm. Most investors of that time—and for many years to follow—looked at each equity holding and each bond without much regard to the interrelationships to other holdings or to the overwhelming importance of the whole relative to the parts.

It was not until 1952, in Harry Markowitz’s immortal 14-page article, “Portfolio Selection,” that the full meaning and significance of the portfolio was articulated for the first time. And few people took notice of what Markowitz had to say for many years to come. Even Milton Friedman, at Markowitz’s oral exams for his PhD degree at Chicago, brushed off this work as neither economics nor mathematics, without in any way acknowledging the profound and far-reaching significance of Markowitz’s achievement.

“Portfolio Selection” demonstrated that the riskiness of a portfolio depends on the covariance of its holdings, not on the average riskiness of the separate investments. This revelation was a thunderclap. No one had ever said that before, even those few who paid some attention to diversification. Investors had always bought and sold securities as individual items or perhaps grouped into separate buckets. For many, diversification was something for sissies, because diversification is an explicit statement that we do not know what the future holds. In
time, however, Markowitz’s emphasis on the portfolio would revolutionize the whole approach
to the investment process, from security selection all the way to overall asset allocation.

Indeed, Markowitz was setting forth an even bigger vision. Before Markowitz, every work
on investing, even the most serious such as Benjamin Graham’s *Security Analysis*, focused
on predicting returns, with risk as a secondary matter. Markowitz set risk at the heart of
the investment process and emphasized the notion of the portfolio as the primary tool for
maximizing the trade-off between risk and return. No wonder Bill Sharpe would exclaim,
many years later, “Markowitz came along, and there was light!” [Burton, Jonathan, 1998.
“Interview,” *Dow Jones Asset Manager*, May/June.]

I have told the story above because it provides significance and meaning to the title of this
book, *Managing Investment Portfolios*, which is the third in a series with this title dating all
the way back to 1983. There are a zillion books whose title says, more or less, *How to Manage
Your Investments*, but such works are valueless. They miss the entire point, encapsulated in that
briefcase kind of vision I inherited from my father so many years ago. The whole is greater
than the parts.

We can go further down this road. Many of these popular books ignore another point
of the highest importance. If the portfolio is the primary tool for maximizing the risk/return
trade-off, it plays that role because risk is the dominant variable in the whole investment process
and the structure of the portfolio is where we make our risk management decisions. Return is
an expectation, not a variable subject to our control. We obviously try to select attractive assets
that we hope will promote our investment objectives, but we never know what the future
holds. The best definition of risk I know was set forth a long time ago by Elroy Dimson of
London Business School: Risk means more things can happen than will happen. The range of
future outcomes is the impenetrable mystery all investors must face.

Investors must shape all portfolio decisions around that simple but powerful truth. If we
do not know the future, decision errors and surprises are inevitable. As a result, managing
investment portfolios is ultimately about managing risk, or preparing for uncertainty and
unexpected outcomes.

By a happy coincidence, John Maginn and Donald Tuttle, who are among the authors
of the opening contribution to this volume, were the editors of the first edition of *Managing
Investment Portfolios* in 1983, to which I was also a contributor. At the end of their introductory
and Tuttle set forth the fundamental principles of investing better than anyone else I know:

*Portfolio management is the central work of investment management, and it is only in the
context of a particular portfolio—and the realistic objectives of the particular portfolio
beneficiary—that individual securities and specific investment decisions can be fully and
correctly understood. And it is in the portfolio context that investors have learned to
appreciate that their objective is not to manage reward but to control and manage risk.*

(page 23)

Keep that paragraph in front of you as you read this book—and forever after.

In relation to this matter, this third edition is an improvement over the 1983 edition: It
has an entire chapter, Chapter 9, explicitly devoted to risk management, a topic, the Preface
assures us, that is “a discipline of immense importance in investment management.” The 1983
dition discussed risk as just part of a chapter headed “Basic Financial Concepts: Return and
Risk,” by Keith Ambachtsheer and James Ambrose. Despite its broad coverage of the topic as
set forth in its title, Ambachtsheer and Ambrose give return equal billing with risk and provide
a heavier emphasis on measurement and implementation than on the essential character of risk and the manner in which it infuses every single investment decision.

In addition, Ambachtsheer and Ambrose employ the *Oxford Dictionary* definition of the word *risk*, which reads “chance of bad consequences . . . exposure to chance of injury or loss.” This view is incorrect or at least incomplete. The ultimate derivation of the word is an old Italian word *risicare*, which means to dare. Recall Dimson’s definition of risk as more things can happen than will happen. Dimson is really just using a fancy phrase to say we do not know what the future holds and that surprises are inevitable. But why do all the surprises have to be “bad consequences”? All investors have had moments (usually all too few) when decisions turned out to exceed their fondest expectations. By highlighting bad outcomes, we lose sight of the most significant feature of the risk/return trade-off that dominates all investment decisions. *Without risk, there is no expected positive return beyond the riskless rate of interest.* But if risk means the return runs the chance of turning out to be negative, risk also means the return could exceed the investor’s expectations. Real life cuts both ways.

What would investing be like if there were no risks? Would markets be cornucopias of juicy returns available to any investor who chooses to play? Hardly. Under those conditions, everyone would rush in to grab the goodies while they last, and asset prices would soar to a point where the only return to expect is the riskless rate of interest. We cannot understand markets, grasp asset pricing principles, compose portfolios, define objectives, prepare investment policy statements, perform the intricacies of asset allocation, estimate expected returns, or execute trades in the marketplace without placing risk in the center of every one of these deliberations or actions.

One final observation is necessary before you begin to drink deep from the libations before you in this book. In financial markets, the price is the primary signal of value. The price may be too high or too low in some fashion, but price is the essential ingredient of a decision to buy or sell an asset. But whence the price? Prices are set by human beings making bids and offers, not by some impersonal mechanism. At the heart of the notion of investment risk-taking is a giant von Neumann-Morgenstern theory of games, in which no player can make a decision without taking into consideration what the other players are up to. The value of every asset at any moment does not depend on the economy, does not depend on interest rates, does not depend on any other familiar variable. It depends on what somebody else will pay for that asset at the moment some investor wants to liquidate it.

No wonder investing is a bet on an unknown future.
PREFACE

Managing Investment Portfolios now appears in its third edition, having served a worldwide readership of investment professionals through its first two. As before, the book’s purpose is to survey the best of current portfolio management practice. Recognizing that portfolio management is an integrated set of activities, topic coverage is organized according to a well-articulated portfolio management decision-making process. This organizing principle—in addition to the breadth of coverage, quality of content, and meticulous pedagogy—continues to distinguish this book from other investment texts.

The book consists of 13 chapters. Each chapter covers one major area and is written by a team of distinguished practitioners and researchers. The authors have adopted a structured and modular presentation style, attempting to clearly explain and illustrate each major concept, tool, or technique so that a generalist practitioner, studying independently, can readily grasp it and use it. Illustrations are abundant and frequently include questions and answers. Terminology is consistent across individual chapters. Just as the book organizes chapters consistent with the portfolio management process, the individual chapters organize topic area knowledge logically, demonstrating processes that a practitioner can take to successfully address needs or tasks, e.g., the preparation of an investment policy statement for a client or the selection of an asset allocation that will help that client achieve his or her investment objectives. Within the unifying context of the portfolio management framework, the chapters thus complement and support each other. To further enhance understanding of the material, the publishers have made available the Managing Investment Portfolios Workbook—a comprehensive companion study guide containing challenging practice questions and solutions.

In more detail, chapter coverage is as follows:

Chapter 1 explains the portfolio management process and its cornerstone, the investment policy statement. The chapter describes an objectives-and-constraints framework for specifying key elements of investment policy. Basic concepts and vocabulary are introduced to give readers command of fundamentals at the outset of studying portfolio management.

Chapter 2 on managing individual investor portfolios takes a structured case-study approach to illustrating the formulation of an investment policy statement and the conduct of portfolio management on behalf of individual investors. The chapter covers the range of issues that distinguish private wealth management—from taxation to the interaction of personality and psychology with investment objectives.

Chapter 3 on managing institutional investor portfolios discusses portfolio management as applied to investors representing large pools of money such as pension funds, foundations, endowments, insurance companies, and banks. For each type of institutional investor, the chapter analyzes and illustrates the formulation of the elements of an appropriate investment policy statement.

Chapter 4 on capital market expectations provides a comprehensive and internationally attuned exposition of the formulation of expectations about capital market returns. The
Chapter offers a wealth of information on the variety of approaches, problems, and solutions in current professional practice.

Chapter 5 on asset allocation addresses the allocation of the investor’s assets to asset classes. Strategic asset allocation integrates the investor’s long-term capital market expectations (presented in Chapter 4) with the investor’s return objectives, risk tolerance, and investment constraints from the investment policy statement (presented in Chapters 1, 2, and 3). Tactical asset allocation, reflecting shorter-term capital market expectations, is a distinct investment discipline that is also discussed in this chapter. The chapter digests many advances in the understanding and practice of asset allocation that have been made over the last decade.

Chapter 6 on fixed-income portfolio management provides a well-illustrated presentation of the management of fixed-income portfolios with varying investment objectives. The chapter also covers the selection of fixed-income portfolio managers.

Chapter 7 on equity portfolio management offers a detailed picture of current professional equity portfolio management practice. The authors cover the definition, identification, and implementation of the major approaches to equity investing. The chapter also discusses the problems of coordinating and managing a group of equity portfolio managers and selecting equity managers.

Chapter 8 on alternative investment portfolio management discusses the investment characteristics and possible roles in the portfolio of major alternative investment types. These include real estate, private equity and venture capital, commodities, hedge funds, managed futures, and distressed securities. The chapter also covers critical issues such as due diligence in alternative investment selection.

Chapter 9 on risk management surveys a discipline of immense importance in investment management. This chapter explains a framework for measuring, analyzing, and managing both financial and nonfinancial risks. The chapter is relevant not only to managing the risk of portfolios, but also to structuring an investment firm’s overall operations and to evaluating the risks of companies that are prospects for investment or counterparties in financial transactions.

Chapter 10 on execution of portfolio decisions addresses the critical tasks of executing trades, measuring and controlling transaction costs, and effectively managing the trading function.

Chapter 11 on monitoring and rebalancing presents and illustrates two key activities in assuring that a portfolio continues to meet an investor’s needs over time as investment objectives, circumstances, market prices, and financial market conditions evolve.

Chapter 12 on evaluating portfolio performance discusses performance measurement, attribution, and appraisal, addressing the questions: “How did the portfolio perform?” “Why did the portfolio produce the observed performance?” and “Is performance due to skill or luck?”

Chapter 13 on global investment presentation standards covers the accurate calculation and presentation of investment performance results as set forth in Global Investment Presentation Standards®, a set of standards that has been widely adopted worldwide.

Editorially directed from within CFA Institute, each chapter has been through several rounds of detailed external review by CFA charterholders to ensure that coverage is balanced, accurate, and clear. This intensive review process reflects the stated mission of CFA Institute to lead the investment profession globally by setting the highest standards of ethics, education, and professional excellence. We are confident you will find your professional education in investments enhanced through the study of Managing Investment Portfolios.
ACKNOWLEDGMENTS

It is often said that we stand on the shoulders of those that came before us. The *Managing Investment Portfolios* book has evolved over almost three decades, starting with a task force of six CFA charterholders who defined the investment management process that remains the cornerstone of this third edition. During this same period, the practice of portfolio management has made great strides. The authors and reviewers of the previous two editions blazed the trail that has been so ably and comprehensively updated and expanded by the authors of the chapters in this edition. We continue to be thankful for the role that so many have played in the evolution of this book and the practice of portfolio management.

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INTRODUCTION

CFA Institute is pleased to provide you with this Investment Series covering major areas in the field of investments. These texts are thoroughly grounded in the highly regarded CFA Program Candidate Body of Knowledge (CBOK®) that draws upon hundreds of practicing investment professionals and serves as the anchor for the three levels of the CFA Examinations. In the year this series is being launched, more than 120,000 aspiring investment professionals will each devote over 250 hours of study to master this material as well as other elements of the Candidate Body of Knowledge in order to obtain the coveted CFA charter. We provide these materials for the same reason we have been chartering investment professionals for over 40 years: to improve the competency and ethical character of those serving the capital markets.

PARENTAGE

One of the valuable attributes of this series derives from its parentage. In the 1940s, a handful of societies had risen to form communities that revolved around common interests and work in what we now think of as the investment industry.

Understand that the idea of purchasing common stock as an investment—as opposed to casino speculation—was only a couple of decades old at most. We were only 10 years past the creation of the U.S. Securities and Exchange Commission and laws that attempted to level the playing field after robber baron and stock market panic episodes.

In January 1945, in what is today CFA Institute Financial Analysts Journal, a fundamentally driven professor and practitioner from Columbia University and Graham-Newman Corporation wrote an article making the case that people who research and manage portfolios should have some sort of credential to demonstrate competence and ethical behavior. This person was none other than Benjamin Graham, the father of security analysis and future mentor to a well-known modern investor, Warren Buffett.

The idea of creating a credential took a mere 16 years to drive to execution but by 1963, 284 brave souls, all over the age of 45, took an exam and launched the CFA credential. What many do not fully understand was that this effort had at its root a desire to create a profession where its practitioners were professionals who provided investing services to individuals in need. In so doing, a fairer and more productive capital market would result.

A profession—whether it be medicine, law, or other—has certain hallmark characteristics. These characteristics are part of what attracts serious individuals to devote the energy of their life’s work to the investment endeavor. First, and tightly connected to this Series, there must be a body of knowledge. Second, there needs to be some entry requirements such as those required to achieve the CFA credential. Third, there must be a commitment to continuing education. Fourth, a profession must serve a purpose beyond one’s direct selfish interest. In this case, by properly conducting one’s affairs and putting client interests first, the investment
professional can work as a fair-minded cog in the wheel of the incredibly productive global capital markets. This encourages the citizenry to part with their hard-earned savings to be redeployed in fair and productive pursuit.

As C. Stewart Sheppard, founding executive director of the Institute of Chartered Financial Analysts said, “Society demands more from a profession and its members than it does from a professional craftsman in trade, arts, or business. In return for status, prestige, and autonomy, a profession extends a public warranty that it has established and maintains conditions of entry, standards of fair practice, disciplinary procedures, and continuing education for its particular constituency. Much is expected from members of a profession, but over time, more is given.”

“The Standards for Educational and Psychological Testing,” put forth by the American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education, state that the validity of professional credentialing examinations should be demonstrated primarily by verifying that the content of the examination accurately represents professional practice. In addition, a practice analysis study, which confirms the knowledge and skills required for the competent professional, should be the basis for establishing content validity.

For more than 40 years, hundreds upon hundreds of practitioners and academics have served on CFA Institute curriculum committees sifting through and winnowing all the many investment concepts and ideas to create a body of knowledge and the CFA curriculum. One of the hallmarks of curriculum development at CFA Institute is its extensive use of practitioners in all phases of the process.

CFA Institute has followed a formal practice analysis process since 1995. The effort involves special practice analysis forums held, most recently, at 20 locations around the world. Results of the forums were put forth to 70,000 CFA charterholders for verification and confirmation of the body of knowledge so derived.

What this means for the reader is that the concepts contained in these texts were driven by practicing professionals in the field who understand the responsibilities and knowledge that practitioners in the industry need to be successful. We are pleased to put this extensive effort to work for the benefit of the readers of the Investment Series.

**BENEFITS**

This series will prove useful both to the new student of capital markets, who is seriously contemplating entry into the extremely competitive field of investment management, and to the more seasoned professional who is looking for a user-friendly way to keep one’s knowledge current. All chapters include extensive references for those who would like to dig deeper into a given concept. The workbooks provide a summary of each chapter’s key points to help organize your thoughts, as well as sample questions and answers to test yourself on your progress.

For the new student, the essential concepts that any investment professional needs to master are presented in a time-tested fashion. This material, in addition to university study and reading the financial press, will help you better understand the investment field. I believe that the general public seriously underestimates the disciplined processes needed for the best investment firms and individuals to prosper. These texts lay the basic groundwork for many of the processes that successful firms use. Without this base level of understanding and an appreciation for how the capital markets work to properly price securities, you may not find
competitive success. Furthermore, the concepts herein give a genuine sense of the kind of work that is to be found day to day managing portfolios, doing research, or related endeavors.

The investment profession, despite its relatively lucrative compensation, is not for everyone. It takes a special kind of individual to fundamentally understand and absorb the teachings from this body of work and then convert that into application in the practitioner world. In fact, most individuals who enter the field do not survive in the longer run. The aspiring professional should think long and hard about whether this is the field for him- or herself. There is no better way to make such a critical decision than to be prepared by reading and evaluating the gospel of the profession.

The more experienced professional understands that the nature of the capital markets requires a commitment to continuous learning. Markets evolve as quickly as smart minds can find new ways to create an exposure, to attract capital, or to manage risk. A number of the concepts in these pages were not present a decade or two ago when many of us were starting out in the business. Hedge funds, derivatives, alternative investment concepts, and behavioral finance are examples of new applications and concepts that have altered the capital markets in recent years. As markets invent and reinvent themselves, a best-in-class foundation investment series is of great value.

Those of us who have been at this business for a while know that we must continuously hone our skills and knowledge if we are to compete with the young talent that constantly emerges. In fact, as we talk to major employers about their training needs, we are often told that one of the biggest challenges they face is how to help the experienced professional, laboring under heavy time pressure, keep up with the state of the art and the more recently educated associates. This series can be part of that answer.

CONVENTIONAL WISDOM

It doesn’t take long for the astute investment professional to realize two common characteristics of markets. First, prices are set by conventional wisdom, or a function of the many variables in the market. Truth in markets is, at its essence, what the market believes it is and how it assesses pricing credits or debits on those beliefs. Second, as conventional wisdom is a product of the evolution of general theory and learning, by definition conventional wisdom is often wrong or at the least subject to material change.

When I first entered this industry in the mid-1970s, conventional wisdom held that the concepts examined in these texts were a bit too academic to be heavily employed in the competitive marketplace. Many of those considered to be the best investment firms at the time were led by men who had an eclectic style, an intuitive sense of markets, and a great track record. In the rough-and-tumble world of the practitioner, some of these concepts were considered to be of no use. Could conventional wisdom have been more wrong? If so, I’m not sure when.

During the years of my tenure in the profession, the practitioner investment management firms that evolved successfully were full of determined, intelligent, intellectually curious investment professionals who endeavored to apply these concepts in a serious and disciplined manner. Today, the best firms are run by those who carefully form investment hypotheses and test them rigorously in the marketplace, whether it be in a quant strategy, in comparative shopping for stocks within an industry, or in many hedge fund strategies. Their goal is to create investment processes that can be replicated with some statistical reliability. I believe
those who embraced the so-called academic side of the learning equation have been much more successful as real-world investment managers.

THE TEXTS

Approximately 35 percent of the Candidate Body of Knowledge is represented in the initial four texts of the series. Additional texts on corporate finance and international financial statement analysis are in development, and more topics may be forthcoming.

One of the most prominent texts over the years in the investment management industry has been Maginn and Tuttle’s *Managing Investment Portfolios: A Dynamic Process*. The third edition updates key concepts from the 1990 second edition. Some of the more experienced members of our community, like myself, own the prior two editions and will add this to our library. Not only does this tome take the concepts from the other readings and put them in a portfolio context, it also updates the concepts of alternative investments, performance presentation standards, portfolio execution and, very importantly, managing individual investor portfolios. To direct attention, long focused on institutional portfolios, toward the individual will make this edition an important improvement over the past.

*Quantitative Investment Analysis* focuses on some key tools that are needed for today’s professional investor. In addition to classic time value of money, discounted cash flow applications, and probability material, there are two aspects that can be of value over traditional thinking.

First are the chapters dealing with correlation and regression that ultimately figure into the formation of hypotheses for purposes of testing. This gets to a critical skill that many professionals are challenged by: the ability to sift out the wheat from the chaff. For most investment researchers and managers, their analysis is not solely the result of newly created data and tests that they perform. Rather, they synthesize and analyze primary research done by others. Without a rigorous manner by which to understand quality research, not only can you not understand good research, you really have no basis by which to evaluate less rigorous research. What is often put forth in the applied world as good quantitative research lacks rigor and validity.

Second, the last chapter on portfolio concepts moves the reader beyond the traditional capital asset pricing model (CAPM) type of tools and into the more practical world of multifactor models and to arbitrage pricing theory. Many have felt that there has been a CAPM bias to the work put forth in the past, and this chapter helps move beyond that point.

*Equity Asset Valuation* is a particularly cogent and important read for anyone involved in estimating the value of securities and understanding security pricing. A well-informed professional would know that the common forms of equity valuation—dividend discount modeling, free cash flow modeling, price/earnings models, and residual income models (often known by trade names)—can all be reconciled to one another under certain assumptions. With a deep understanding of the underlying assumptions, the professional investor can better understand what other investors assume when calculating their valuation estimates. In my prior life as the head of an equity investment team, this knowledge would give us an edge over other investors.

*Fixed Income Analysis* has been at the frontier of new concepts in recent years, greatly expanding horizons over the past. This text is probably the one with the most new material for the seasoned professional who is not a fixed-income specialist. The application of option and derivative technology to the once staid province of fixed income has helped contribute to an
explosion of thought in this area. And not only does that challenge the professional to stay up
to speed with credit derivatives, swaptions, collateralized mortgage securities, mortgage backs,
and others, but it also puts a strain on the world’s central banks to provide oversight and the
risk of a correlated event. Armed with a thorough grasp of the new exposures, the professional
investor is much better able to anticipate and understand the challenges our central bankers
and markets face.

I hope you find this new series helpful in your efforts to grow your investment knowledge,
whether you are a relatively new entrant or a grizzled veteran ethically bound to keep up
to date in the ever-changing market environment. CFA Institute, as a long-term committed
participant of the investment profession and a not-for-profit association, is pleased to give you
this opportunity.

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CHAPTER 1

THE PORTFOLIO MANAGEMENT PROCESS AND THE INVESTMENT POLICY STATEMENT

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1. INTRODUCTION

This chapter introduces a book on managing investment portfolios, written by and for investment practitioners. In setting out to master the concepts and tools of portfolio management,
we first need a coherent description of the portfolio management process. The portfolio management process is an integrated set of steps undertaken in a consistent manner to create and maintain an appropriate portfolio (combination of assets) to meet clients’ stated goals. The process we present in this chapter is a distillation of the shared elements of current practice.

Because it serves as the foundation for the process, we also introduce the investment policy statement through a discussion of its main components. An investment policy statement (IPS) is a written document that clearly sets out a client’s return objectives and risk tolerance over that client’s relevant time horizon, along with applicable constraints such as liquidity needs, tax considerations, regulatory requirements, and unique circumstances.

The portfolio management process moves from planning, through execution, and then to feedback. In the planning step, investment objectives and policies are formulated, capital market expectations are formed, and strategic asset allocations are established. In the execution step, the portfolio manager constructs the portfolio. In the feedback step, the manager monitors and evaluates the portfolio compared with the plan. Any changes suggested by the feedback must be examined carefully to ensure that they represent long-run considerations.

The IPS provides the foundation of the portfolio management process. In creating an IPS, the manager writes down the client’s special characteristics and needs. The IPS must clearly communicate the client’s objectives and constraints. The IPS thereby becomes a plan that can be executed by any adviser or portfolio manager the client might subsequently hire. A properly developed IPS disciplines the portfolio management process and helps ensure against ad hoc revisions in strategy.

When combined with capital market expectations, the IPS forms the basis for a strategic asset allocation. Capital market expectations concern the risk and return characteristics of capital market instruments such as stocks and bonds. The strategic asset allocation establishes acceptable exposures to IPS-permissible asset classes to achieve the client’s long-run objectives and constraints.

The portfolio perspective underlies the portfolio management process and IPS. The next sections illustrate this perspective.

2. INVESTMENT MANAGEMENT

Investment management is the service of professionally investing money. As a profession, investment management has its roots in the activities of European investment bankers in managing the fortunes created by the Industrial Revolution. By the beginning of the twenty-first century, investment management had become an important part of the financial services sector of all developed economies. By the end of 2003, the United States alone had approximately 15,000 money managers (registered investment advisers) responsible for investing more than $23 trillion, according to Standard & Poor’s Directory of Registered Investment Advisors (2004). No worldwide count of investment advisers is available, but looking at another familiar professionally managed investment, the number of mutual funds stood at about 54,000 at year-end 2003; of these funds, only 15 percent were U.S. based.¹

¹These facts are based on statistics produced by the Investment Company Institute and the International Investment Funds Association.