Cases in PORTFOLIO MANAGEMENT

Robert F. Vandell

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To my children,
Chip, Trudy, and Warren.

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Introduction

Portfolio Management involves a top-down look at the process of managing portfolios and at the strategic and tactical decisions that determine the ongoing character of a portfolio. Item selection, which is based on detailed security analysis and the choices relating to adding or deleting individual securities to or from a portfolio, lies beyond the underlying portfolio organizational structure and the methodology designed to facilitate good implementation and is not the focal point of this book.

The cases are written from the viewpoint of either a client or a manager of funds with a product being marketed to certain potential clients. In some cases the clients are individuals with limited resources to invest. At the other extreme, sponsors are the large pension funds that hire numerous managers to help them achieve their objectives. Clients have unique objectives, circumstances (e.g., wealth, tax exposure), needs, tastes, and beliefs that shape the way they think about their investment requirements. They may or may not be knowledgeable, understanding, perceptive, or systematic (unemotional) in how they reach the major decisions that profoundly affect their own or their organization's welfare. They may or may not understand the limits of their skills or the dangers they expose themselves to when they are less than all-wise "economic men." Their choices are bewildering in number, and the array of potential combinations is staggering. Thousands of portfolio alternatives are available for even a small IRA investment, and there are sharp constraints on the time an individual can or should devote to the choice. Somehow individuals must boil down this complexity to levels they can deal with constructively within the time they have available. How can this all best be done?

The fund manager has a portfolio product (or family of products)—born of his or her knowledge, experience, and skills—that must be marketed to certain types of potential clients. The product does not have hard, stable features that make manufacture routine; it must be reshaped continuously as characteristics of the ingredients change yet directed toward some enduring concept of what it should be. Production methods must change with technology and with circumstances. The future performance characteristics of the product—even a well-conceived and well-designed one—are uncertain, and the past performance record may or may not be useful in describing what it will do next or even what the boundaries of performance uncertainty are. The fund manager also faces a bewildering array of ever-changing alternatives for potential use in his or her portfolio. These alternatives must be distilled to workable levels that facilitate the analysis necessary for intelligent choice and action. Each product faces an often large array of competitive products with somewhat similar but fuzzy general characteristics. The product must be packaged and sold in ways that not only appeal to potential clients but also differentiate it from other products targeted toward the same buyers. The organization must provide as many as possible of the resources necessary to achieve the desired ends, and the resources must be organized purposefully and efficiently to provide the wherewithal for achievement. The issue is, how can all these activities be done successfully?

Why Cases?

This book is designed to provide perspective—through the background descriptions and the factors bearing on the focal issues—on the "how" questions of portfolio management. Cases are used because no single all-encompassing solution exists to any of the problems encountered. Certain principles may guide us toward answers we consider better, but today's principles may be contradicted, amplified, or supplemented as we learn more. In any case, we must adapt principles to the realities of circumstances, and the reasoning process that bridges the gap is often demanding. Cases help students acquire the knowledge, understanding, skill, and wisdom necessary for successful decision making in changing circumstances.

Knowledge is rote learning. We acquire facts, opinions, or theories from many sources, including formal education. We do not remember all we learn. Some information is discarded as better information becomes available. Much is just forgotten. The context that limits its meaning may become distorted. Humans are not like computer memory banks that remember all they have been fed (so long as they don't malfunction!). For humans, motivation to master facilitates knowledge retention. Educators use a final exam as one motivation for knowledge retention. If information is relevant to our lives, we are more strongly motivated to remember it. Case experiences let us apply such information to people's situations. A good memory and the ability to access needed information expeditiously are assets—but they are not sufficient for success.

Understanding implies more than knowledge. A formula may be memorized, but understanding a formula suggests that it makes sense to the learner and that the learner has acquired some awareness of how and when the formula can be applied to achieve some desired end and when it cannot be. Understanding facilitates the organization of data and experiences, so that they form sensible patterns or lead to useful generalizations. At the same time, it encourages differentiation: we recognize that the formula is incomplete in a certain situation because of circumstances, or timing, or people. Learning is internalized in the sense that it influences future behavior beyond the context in which the knowledge was acquired. Cases provide the opportunity to apply knowledge in contexts that test it, so they help students grow in awareness.

Skill requires knowledge and understanding—the more the better. A physical analogy may be helpful. It is one thing to read a book on how to play tennis to gain knowledge and understanding. It is quite another to win on the tennis courts. The latter requires skill in using knowledge and understanding to one's advantage. Skill in both physical and mental activities requires practice at employing understanding efficiently and effectively under a variety of circumstances. As new experiences occur, a feedback mechanism refines and enhances understanding and tends to increase its practical value. The preparation and discussion of cases should add to students' experience base and prepare them for a business world where skill is valued.

A lot of people have a level of mastery—say, of chess—evidencing skill. Some are better than others—evidencing more understanding and skill. Some world chess masters progress long after others reach a plateau. Apparently, at some point, experience alone does not lead to growth; something else takes its place. The term I use is wisdom. Wisdom involves some native talents like intelligence and aptitude, but it also involves perception, foresight, and determination. The product is superior behavior. Decisions and their implementation work out to better advantage more frequently. Wisdom depends on knowledge, understanding, and skill, but it comes sooner and more completely to some. If wisdom can be taught, I don't know how. It can be provided through exposure to experience under the guidance of wise mentors acting like chess coaches. Case experiences are one means of providing this opportunity for growth in wisdom.

There are two products of learning: generalization and differentiation. Theories are examples of generalizations. Differentiation, in contrast, distinguishes between things based on their context. Which theory is applicable in these circumstances? What are the practical limits of this theory in the forms I have learned it?

The ability to generalize creatively is highly valued in the academic world. Our texts tend to reflect what we regard as the best of these generalizations. Generalizations are helpful to businesspeople too, but dealing with complex business situations often creates a more valuable skill. Decisions must fit circumstances as they evolve, and successful implementation of decisions may be more critical than the original decision itself. Who does what when—a set of implementation decisions—is abetted by differentiation skills.

Generalization provides a useful framework for facilitating differentiation and for improving the generalizations themselves. Cases, it is true, are not the most efficient means of teaching generalizations currently perceived to be the most useful. The learning generalizations, however, are often decoupled from experience in using them. Cases do provide the means of testing generalizations in the practical world where they may or may not fit.

Those who find the case method anathema usually center their arguments on the inefficiencies of using cases to teach theory and principles, which are described as enduring. No doubt they are right, although having watched theory flip-flop many times in my career and having experienced the practical limits of the applied uses of many theories, my perception of their enduring value is more constrained than some people's. The cases used here frequently involve currently prevailing investment theories, but the practitioners using the theories are often doing so in a purposeful way that flies in the face of the theory's underlying premise: they are trying to locate and exploit inefficiencies in an "efficient" market.

Are Markets Inefficient?

If markets are efficient, why bother to study active management practices? The simple answer is, that's where the career opportunities are today and will be tomorrow.

A businessperson thinks about problems differently from an academic. Academics seek unqualified truths through deductive logic and tests of statistical validity, but they have not found many truths so far. A person in business is more interested in the economic value of information that is based on observed and analyzed patterns: he or she asks, "Am I going to be better off using information on established tendencies or rejecting it?" Such people will use hypotheses born of opportunities that are well short of the point at which an academic would find them unqualified truths. Moreover, the ways portfolio managers use information are very different from the ways academics seek to test it. The business issue is, does it work?

Wearing my academic hat, I can say that pricing anomolies—opportunities to make money—do not last long or occur that frequently. After all, if a $20 bill were left on a street corner for all to see, it would quickly be picked up. The "opportunity" would disappear. Putting my business hat on, however, I argue that we don't yet know how to define value opportunities unambiguously. With the advent and testing of arbitrage pricing theory (APT), we learned that more than one factor influences prices. Unfortunately, the tests could not determine how many factors there were, what each factor was, or whether the influence was stable or unstable over time. We have no means of determining even crudely what the price of any risky security should be in theory. Worse, we cannot deduce answers logically. We only hypothesize and then test the validity of our hypotheses empirically. The theories of more astute businesspeople may fair well in this testing. In fact, practitioners were already using APT methods to economic advantage in applied tests before the concept hit the academic literature, as certain cases in this volume will illustrate.

Portfolio management is a loser's game, so the argument runs. The capital markets are a zero-sum activity; each transaction has a potential winner and loser, and the size of the gains or losses is the same over any adversary's specified period. One can win only by being better than one's adversaries with greater consistency. Because the players are all well-informed, generally quite smart people, winning with sufficient consistency is hard. Worse, transactions cost money. Information gathering and processing costs money. Managers charge fees for their services to cover these costs and others related to servicing the clients and to make a profit. Total costs erode performance and raise the required average for winning net of costs. Concentrated portfolios of active managers are more risky than efficient-market alternatives, because risk adjustment further reduces the probability of being a net winner. Indexing against a broad market portfolio proxy, with lower transactions and service costs, is a more efficient way of participating in the markets for risky assets than is portfolio management. Moreover, the published evidence tends to confirm this hypotheses. In short, the markets are too efficient for successful active management.

These arguments are widely known and hard to refute. Nevertheless, more clients every year, including large pension sponsors, opt to place more funds with active managers than with passive managers.[1] True, the amounts indexed have grown rapidly over the last 15 years, but the amounts invested with active managers who opened for business in the last 15 years have grown collectively more rapidly. Rightly or wrongly, people and organizations with the money to invest believe they can do better with active investments.

Indexing is size-efficient. A relatively small number of managers dominate the market. Operations are largely machine-driven, and a small cadre of people can handle the sales, reporting, operations, and execution support systems in each firm. In contrast, beyond some point, active management tends to become size-inefficient. There are thousands of active-management firms; they employ more people to handle jobs that require more skill, and they generally offer higher rewards for performance than do the indexers. These firms are where the opportunity lies and where the rewards for success run high. An entire industry is thriving providing active managers with the information and software technology necessary to operate. Pension plans and other big investors hire these managers and often employ their own staffs to assist with the management tasks. Consultants and their staffs also serve these clients. All told, there are probably about 1,000 people associated with active management for each person employed in handling passive portfolios.

The academic appraisal of performance is based on models that we now know are seriously misspecified and incomplete. The models' criteria do not relate to the needs of clients as clients define them or to the manager's objective in serving the clients attracted to his or her approach. Many larger clients and most managers are completely familiar with theoretical constructs of evaluation models, as are the consultants who advise them, yet they choose to appraise performance differently. (Use of the capital asset pricing model, for example, has waned to the point that I rarely see it in performance appraisal today.) Perhaps we should discover why.

Fortunately for active managers, the academic literature is now sprinkled with reports of persistent inefficiencies in the marketplace (small stocks and low price/earnings ratio investment strategies are two examples) that reflect common, long-standing practitioner beliefs. I am certain that if we, as businesspeople do, spend time searching systematically and sensibly for inefficiencies, we will find them.

The cases here do not answer the basic issue, are the capital markets efficient or not? The cases do exemplify investors and managers who seem to be doing a good job. They are not representative of the universe, but if I were entering the marketplace for investors, these are the sort of practitioners I would study.

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[1]The author was, along with about 180 business academics, associated with a consulting firm. Several years ago at the height of belief and evidence in efficient markets, we were offered a choice between several active managers and a passive indexer for investing the equity component of our pension plan. Not one person chose the passive indexer! Do we practice what we preach?

To the Student: The Challenges of the Case Method

For the novice, the case method is a frustrating learning experience at first. You are asked to put yourself in the shoes of a businessperson with a problem to solve and to work your way through to a solution that is better than alternative ones and will work well when implemented. Yet you don't have the knowledge, experience, or judgment of the real executive in the situation, and the problems are often tough ones. You will flounder and procrastinate with case preparation. The more you push yourself to be purposeful and decisive, the more you will gain from the experience. Mistakes are expected. They help you grow in ability.

The problems are not neat and confined like a typical math problem. Some data may be helpful, other data are less material. Data may be estimates or opinions of arguable value—not concrete facts. Some data you would like to have may be missing, often for good reason—namely, they would be too costly to acquire in a timely manner. Even the facts may change with changing times and circumstances.

Solution does not depend on any formula you have just mastered. You will have to decide which method of analysis is most likely to get you the kind of information you want. Through inexperience, you may select the saw to pound the nail in the wall. The formulas and other tools of analysis in your tool kit may be inadequate. You will have to create some new ones or adapt some you have learned elsewhere.

Some of the information available is soft, i.e., not quantified. You will have to learn how to adapt your findings to fit the facts that you cannot crunch in your analysis.

No common solution is clearly the best; there are only better ones and poorer ones. The criteria for deciding which is "the best" are ambiguous and value-based. Moreover, even the seemingly best solution may not work well as the future unfolds.

Finally, you will be working under more time pressures than the real-life executive has and with less human assistance and other resources at your command. You will have to be quite selective in what you choose to do. Your analysis may have to be cruder than your training makes you comfortable with. Remember, in real life "ball park estimates" are often sufficient to move your thinking in the right direction.

The classroom discussion may seem disorderly. It does not have the logical learning flow of a good lecture. However, despite its disorder, the session will cover an unusual amount of information. If you are involved, you will absorb, evaluate, order, and retain a surprising quantity of knowledge.

At first your classroom experience will also be frustrating. Your preparatory work will look meager compared with the achievement of the entire class operating under the guidance of a skilled instructor. Although this makes sense, many students feel humbled.

Participating in class by both talking and listening (evaluating), while important, is also uncomfortable. It is no fun, for example, to see your favored ideas "shot down in flames" by a classmate who sees the problem differently.

Students like to know how they are doing, but assessing relative performance in the hectic give and take of a case-method classroom is difficult. Students may feel that they do not know what they need to know or comprehend what they have already learned and mastered. No text clearly lays out the learning requirements.

You will, however, become more aware of what you must do well to succeed in business. More importantly, your ability to attack problems purposefully and to make good decisions will grow. Development of skills appears to be the main reason the case method has such value in later life, yet skill improvement is hard to recognize.

These and other frustrations are endemic to any participatory learning process that challenges you to stretch your capabilities. They have no cure. Your anxieties will abate, however, as your confidence grows about your ability to deal effectively in messy problem-solving situations.

The case method has a big payoff. Skills and worldly wisdom are valued by businesspeople when they recruit. Case-method students, in turn, seem better prepared than others to handle themselves successfully on their first job and to progress up to the organization ladder.

To the Student: How to Gain from a Case Method Experience

The simple answer is through commitment. The more you can put yourself in the shoes of the decision maker in the case situation and do your best to solve the problem at hand, the more you will gain from the experience—irrespective of the initial quality of your efforts. The more you listen and evaluate what your peers have to say, the more you participate in class by laying out your ideas for others to evaluate and by defending these ideas when you think they are useful, the greater your opportunity for growth in understanding. In brief, success comes if you become involved in the process and participate in it fully, no matter how uncomfortable you may feel.

The value of your work will increase with discipline. There are certain identifiable subtasks involved in reaching better answers to complex issues.

Analysis starts with a clear definition of the real problem to be solved. A businessperson in a case may define the problem in terms of its symptoms, not its causes. Misspecifying the real problem is unlikely to lead to an appropriate solution.

With a clear statement of task, the next step is to determine the major alternative ways in which the problem can be resolved. The case may state the alternatives, but the businessperson may not recognize some of them. In brief, this step contains an element of creative thinking.

The next step is to identify the questions that will have to be answered in order to judge which alternative is likely to prove better. This task may be facilitated by thinking ahead to the kind of information you would want to resolve the central issue. The information needs imply the questions you are seeking to answer.

Once you know where you analysis is going and what kinds of data you will need, the next step is to decide how to obtain this information efficiently and with enough accuracy for the purposes at hand. Some information may already be available in the case; here the task is to assemble and evaluate it. In other cases, you may have to process the available data into a useful form. You must select the appropriate tool of analysis (methodology, formula, etc.) to do so.

A plan of attack should now be shaping up. Analysis consumes time, and time is constrained for you and for businesspeople. A set of priorities must evolve. The perceived importance of the analysis that is needed to resolve the the central issue shapes these priorities (but sometimes information gained from one analysis is prerequisite to another, and this alters desired sequencing). More important questions should be attacked first. A crude schedule of how much time you will spend on each task is helpful at this juncture. You will rarely stick to the time plan, but it helps to know the kinds of adjustments you will have to make later as the analysis progresses.

Your analysis prepares you for the most important part of the process: reaching decisions. Sometimes trade-offs can be made systematically using established techniques of integration analysis. Sometimes your synthesis will be more subjective. It is important that you push yourself to make a decision and spell out your reasons: "Mr. X should do Y because . . . despite . . . "

Decisions must be implemented; thus, the last step is to lay out a plan of implementation: who, what, when, and how to achieve what end. If conditions change, how should the implemention be modified? A fair decision well implemented usually succeeds more than a better decision implemented less well.

In class you will find new ideas and approaches to solving the problem. Some will be better, some poorer than your own. These new ideas are the fuel that feeds your growth. Your task is to assess their usefulness. Good preparation facilitates these assessments.

The broader the participation from the class, the wider the array of new ideas to learn from. Almost everyone will see something different in the case facts that influences their analyses and judgments. Frequent participation by you helps.

A good case class will expose you to more ideas than you can properly assess. A postclass synthesis is thus helpful. Two types of analysis are especially productive. How could I improve my plan of attack on this type of problem in the future? What have I learned that might be useful in resolving different types of problems? Occasionally you may only half understand some technique of analysis that seemed particularly insightful and productive. Try to complete your understanding of it. These "debriefing" experiences can be the most important contributors to your growth.

Experience is the best teacher, some say. It can be. It is certainly the predominant way we learn and grow—particularly in the business world. The case method provides you with the opportunity and discipline to improve your skills in learning from experience.

An Outline of the Book

Each instructor using this book will have different objectives and be working with students with different levels of experience. Instructors design the course to meet those specific needs. As a consequence, their learning sequence may be quite different from the one now set forth.

A topical outline never does justice to a case book. Each case involves a myriad of factors beyond those represented by the topics. A person developing a case course weaves together a number of factors to provide reinforcement, contrasting or different approaches to similar problems, coverage of a diversity of problems, and building blocks that carry forward learning achievements to later applications.

The first two cases here illustrate the kinds of problems clients face in designing an investment program for themselves. One client is a new widow with limited capital to meet her life needs. The other is a sizable pension plan that has reformulated its investment strategy and has reached a critical and touchy implementation decision. The importance of the client's interest recurs in most of the cases that follow, and these two contrasting cases lay a foundation for later understanding.

Two cases on performance measurement follow. Both are written from the viewpoint of a fund manager worrying about specific aspects of a funds performance and what might be done about it. Performance evaluation also remains important in many cases that follow.

The next three cases concern managers who are trying to use some aspect of modern portfolio theory in their active management work. These cases help in the process of relating theory to practice.

Several cases cover practitioners' efforts to develop strategies to exploit anomolies uncovered by research and analysis developed internally or purchased externally. These cases also involve theory-derived investment strategies.

Asset-mix determination is often regarded as the most important strategic decision made by a client because it involves the income/risk trade-off at its most fundamental level. An asset-mix strategy sets the target allocation of available funds to major asset classes. The first two cases on asset-mix approach the issue from the viewpoint of pension fund sponsors, who have, or seem about to reach, extreme solutions to the asset-mix question. The next two cases illustrate more conventional approaches to resolving the asset-mix issue and the problems the solutions pose for the clients who must use them. Market timing and hedged portfolio strategy are then presented as alternative ways of resolving the asset-mix problem.

Equity management provides the widest swing in portfolio results. A series of six cases illustrates the problems and opportunities involved in managing equity portfolios to achieve some desired end. Each manager in the case defines the task differently and approaches the evaluation problem differently.

Pension funds and many individuals employ several fund managers to invest their equity funds. How can these funds be deployed to best achieve the client's objectives? Several cases take up this issue next.

Fixed-income and equities are not the only vehicles in which clients invest their capital. Two cases take up more specialized investment approaches that use security types not normally considered in conventional approaches.

A look back at the asset allocation decision in light of actuarial considerations closes the book.

This book tries to provide a relatively comprehensive exposure to the kinds of problems that most worry clients and fund managers. The cases are both challenging and important. The book is structured to provide a logical learning progression.

Bon appétit!

Acknowledgments

All but two of the cases in *Cases in Portfolio Management* were written by faculty members of the Colgate Darden Graduate School of Business Administration, University of Virginia. The Darden Sponsors hold the copyrights to all these cases, and

they are reproduced here with their permission. Two cases were written at the Harvard Graduate School of Business Administration, and their copyrights are held by the President and Fellows of Harvard University. These cases are used with their permission. I appreciate all this cooperation.

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All the cases in this book are based on real-world problems and were written in the field with the cooperation of business firms or individual investors. I am indebted to each person and each organization that made these cases possible. Michael Berry, a Darden colleague, wrote one of the cases in the book. A number of individuals helped me, as research assistants or students, with the writing of several others.

If the cases seem well written (as well as challenging), then much of the credit belongs to the editorial support staff at Darden, ably led by Bette Collins. My several secretaries over the years all deserve a bouquet of flowers for translating my handwritten scrawl into finished manuscripts. Kay Russo, Cindy Fraser, and Betty Jean Blincoe, and merit particular mention.

The cases have all been taught in the Darden MBA program, and about half of them have been used in practitioner courses run by our Executive Programs activity. Several have been taught at other graduate and undergraduate schools with considerable success. Many of these students and other instructors have provided me with valuable feedback that has helped me to improve the quality of the cases.

I have drawn heavily on academic research and on discussion with my academic colleagues to help me understand my subject area. The number and caliber of the investment and finance faculty members has grown enormously in the last 20 years, as has the quantity and quality of their theoretical and empirical research. Business executives, who in growing numbers attempt to follow and to use this research toward practical ends, also have contributed (largely unpublished) research that has further enriched my understanding. The chasm that grew between academic research and business understanding is increasingly being bridged. I hope that this book also helps bring together the interests of academics with the problems of practitioners.

Robert F. Vandell

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