

— THE —  
INTELLIGENT  
PORTFOLIO  
—

Practical Wisdom on Personal Investing  
from Financial Engines

CHRISTOPHER L. JONES



WILEY

John Wiley & Sons, Inc.



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For Barbara and our two wonderful kids  
(the best investments I've ever made), and  
to my parents for always providing a steady tailwind.



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# Foreword

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**W**hen the idea of a personal investment book based on Financial Engines' ideas and experience was first broached, the reaction was enthusiastic but guarded. Who could do the project justice? And who could find the time to produce a book that would be practical, approachable and sufficiently broad?

There was no question concerning the best choice. Christopher Jones has been the leader of the finance team at Financial Engines since the firm was founded. His ability to explain the most complex investment ideas and bring them down to earth was well-established. But what about the time required to complete such a project? "Not to worry," he said. "That is the reason that we have evenings and weekends."

The result—*The Intelligent Portfolio*—is before you now. And I am sure that the effort required many late nights.

His style is engaging. His thoughts are richly practical but firmly based in financial economic theory and rigorous empirical work. And most importantly, Chris dives deeply into the lessons learned over more than a decade by a large group of talented people dedicated to helping individuals make better financial decisions.

The investment world has changed—and keeps evolving—in a way that makes more and more people responsible for their own financial destiny. While defined benefit plans (DBs) once managed retirement savings for you, the new reality is that defined contribution plans (DCs) such as 401(k) are rapidly becoming our primary savings vehicles. The decisions you make with your DC plan can thus have a profound impact on your life.

Fortunately for you, the reader, this is not a book written by committee. Nor does it reflect a singular "official" position of Financial Engines. Rather it is the work of an experienced and talented investment professional, distilling his views of the key ideas and facts that any intelligent investor should know in order to invest and save sensibly. And is it a great read! Chris has managed

to convey the essence of financial economics with nary an equation and to make the experience both fun and educational.

*The Intelligent Portfolio* emphasizes the lessons learned over decades based on financial research in both academic institutions and financial firms. But there is so much more here. The book draws heavily on insights gained by working with hundreds of thousands of individual investors struggling with important lifetime financial decisions. Financial Engines was founded to serve literally millions of people at a small fraction of the cost of existing comprehensive approaches. This ruled out consideration of any process in which key investment decisions are made by highly paid advisors based on instincts or gut feelings. Instead, it required a new and systematic approach to investment advice—one in which expertise is captured in algorithms used to generate personalized recommendations for investors. In pursuing this goal, tens of thousands of mutual funds and stocks have been analyzed in great detail, millions of portfolios have been simulated, and investment performance over time analyzed in exquisite detail. The book capitalizes on all this experience, bringing to the reader much that is new as well as much that is old.

Alright. But do you need to use the Financial Engines service to gain from reading this book? Of course not. The lessons it contains are fundamental principles of personal investing. One way or another, either you or your financial advisor need to know them, and there is a great deal to be said for plenty of overlap. It is, after all, your financial life.

If you are inclined to use the Financial Engines' service, this book will equip you to get far more from the experience. It will explain why Financial Engines recommends diversification, lower cost investments, adequate savings rates, and how it offers you a personalized approach to reaching your own financial goals. It will also illustrate the tradeoffs between risk and return, the importance of making long-term financial decisions taking both risk and return into account, and the nature of the opportunities available to investors in financial markets. Finally, it will insulate you from those in the financial community who are eager to take your hard-earned money in return for promises that are literally too good to be true.

Read on and you will certainly become a more realistic and intelligent investor. Then you can get back to enjoying the rest of your life.

William F. Sharpe  
Palo Alto, California  
February 13, 2008

# Preface

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*Investors should start with a view of skepticism.*

—Arthur Levitt, former Chairman of the United States  
Securities and Exchange Commission (SEC)

**W**hen I was in high school, I had a rather colorful American history teacher. A compact man with closely cropped gray hair and a decidedly Hemingway-esque demeanor, Mr. Ryan was, in the best sense of the word, a skeptic. In our classroom discussions, he quickly established a reputation for questioning assumptions and challenging conventional wisdom. He pushed us to expose sloppy thinking—especially our own—and not be afraid of challenging views that were widely held and espoused. Though I picked up a good bit of history in that class, the most vivid lesson had nothing to do with the Founding Fathers or the Louisiana Purchase. Mr. Ryan's passionate belief was that the most important skill in life you can develop is the ability to *think critically*, though in truth he had a slightly less genteel way of phrasing the point.

Mr. Ryan's lesson has stuck with me through the years and remains one of the most important things I learned in school. Time and time again in my career I have been reminded of the merits of a healthy dose of skepticism when it comes to evaluating financial decisions. Whether in the boardroom or around the kitchen table, being willing to question assumptions and not be distracted by irrelevant or misleading information is a highly valuable skill, and sadly one that is not developed often enough in our schools. Far too often, we fall prey to having our attention focused on the inconsequential rather than the essential. Through modern media and advertising, we face a veritable blizzard of useless information vying for our attention. Keeping track of the truth through such a haze of falsehoods, minutia, pretensions, and misdirection requires considerable energy and diligence. And

nowhere is the impact of critical thinking more pronounced than in the investing world, where it can make the difference between success and outright disaster.

Since most of us do not try to become self-educated authorities in every aspect of our lives, we seek advice from experts. In working with such experts, including those who fix our teeth, service our cars, and prepare our taxes, we walk the fine line between knowing enough to stay out of trouble, and wasting time and energy on things that we don't really need to learn. However, the perils of making big mistakes or being led astray by phony wisdom are particularly vivid when dealing with decisions about your money.

If you spend any time at all on the subject of personal finance, your skeptical eye will have noticed the deluge of claims that you can beat the market, generate millions of dollars in quick rewards, impress friends, and look better in a bathing suit, all by following a few simple investing rules. Most would correctly view such claims with a healthy dose of doubt, if not outright derision. Putting it mildly, there is a lot of dumb advice out there when it comes to investing. In fact, many of the most important ideas from financial economics, promoted by popular media and advertised by financial services firms, are distorted or misused in order to sell more products and services. Things that you hear about the most (such as past performance) are often among the least important factors in making good investment decisions, while aspects that are crucially important (like fees and expenses) are often hidden from view.

As with many things in life, a good strategy to use when you lack experience is imitation. Want to learn how to make better investment decisions? Look at how the most skilled and experienced professionals invest the billions of dollars in their care. Methods used by multibillion-dollar institutional investors are directly applicable to the decisions faced by individual investors (albeit with differences in the way the problems are framed). Moreover, so are the results. Today the technology exists to perform the same analyses on your investments that institutional investors used to pay hundreds of thousands of dollars to carry out—and accomplish the task in a few minutes. What does this analysis do for you? It helps you understand how different decisions affect possible future outcomes and how to structure portfolios that will improve your odds of success. So-called *outcomes-based* investing can be a revelation for those faced with difficult choices. The key to good investment decisions is making informed choices. Life is unpredictable. That might sound like a cliché tagline from an insurance commercial, but it really is true. We do not get to pick which future we will

live through, but we can structure investment strategies that contemplate the full range of possible outcomes.

For the past 11 years, as a founding employee and head of investment management for Financial Engines, I have been in the unique position to both witness and participate in the migration of institutional investing techniques to the world of individual investors. Financial Engines has been a pioneer in bringing the best of financial economics and institutional money management to everyday investors through independent and personalized advisory and investment management services. The creation of these services required significant insights into how the best practices from academic and institutional finance could be applied to the needs of individual investors—insights that I will now share with you.

What you need to know to make good investment decisions can be distilled down into 10 basic concepts:

- Recognize the linkage between risk and reward
- Avoid being deceived by history
- Leverage the wisdom of the market
- Select an appropriate risk level
- Avoid the perils of stock picking
- Don't spend too much on investment fees
- Diversify intelligently
- Select funds using relevant forward-looking criteria
- Understand how to realistically fund financial goals
- Invest tax-efficiently

Each of these concepts is explored in the chapters that follow. Some of these ideas will seem like common sense, some will seem counterintuitive and surprising; all of them are important in making good investment decisions. This book builds from some basic intuition on how financial markets function, to practical tips on evaluating trade-offs, to real-world advice on selecting investments, building portfolios, and maximizing the chance of reaching your financial goals. If you learn and follow these principles, you will become a better investor as well as a better judge of whether you are getting good advice. The half-truths, shoddy thinking, and bad advice you regularly encounter in the investing world will become that much more apparent—and that much easier to avoid.

I first began mentioning to friends and family that I was considering writing a book on personal investing in the winter of 2006. The reaction was usually an enthusiastic thumbs up, but I could not help wondering if they