

Excerpt from:

## The Science of Investing:

How To Use Academic Research to Increase Returns  
and Reduce Risks In Your Investment Portfolio

By The Advisors Of

Joseph Capital Management, LLC

A Fee-Only Investment Advisory Firm

A Member of The Joseph Financial Group

Ron A. Rhoades, B.S., J.D., Director of Research

Michael J. Tringali, C.P.A. (FL), C.F.P.<sup>™</sup>, Managing Director

John J. Ceparano, C.P.A. (FL, NY), M.Tax., Director of Financial Planning

This publication is designed with the goal of providing accurate and authoritative information in regard to the subject matter covered. This material is presented with the understanding that the publisher or author and the reader are not, merely by the presentation of this material, engaged in an advisor-client relationship. Prior to the application of any of the concepts set forth herein, individual investors should obtain comprehensive and objective tax, financial, estate and asset protection planning in view of their own unique situation and needs.

Various statistical and historical data included herein is provided courtesy of, and is Copyright © 2003 by Dimensional Funds Advisors, Inc. (DFA), pursuant to licenses from the Center for Research In Security Prices (CRSP) at the University of Chicago Graduate School of Business, Ibbotson Associates, Inc. (Ibbotson), and other third-party sources. (See "Sources of Data," Appendix A.) All rights are reserved by the foregoing organizations to such data. The information, data, analyses and opinions contained herein do not constitute investment advice offered by Joseph Financial Publications, LLC, Joseph Capital Management, LLC, DFA, CRSP nor Ibbotson, and are provided solely for informational purposes. While the data presented herein is believed to be accurate, it is not warranted to be correct, complete or accurate. Neither Joseph Financial Publications, LLC, Joseph Capital Management, LLC, DFA, CRSP nor Ibbotson shall be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use.

Book jacket cover design by Crowley & Company Advertising, Inc., Hernando, Florida

© 2003 Joseph Financial Publications, LLC, Hernando, Florida. All Rights Reserved.

Printed and distributed pursuant to license granted by Joseph Financial Publications, LLC to Joseph Capital Management, LLC.

No part of this book may be used or reproduced in any manner whatsoever without written permission, except in the case of brief quotations embodied in critical articles or reviews. For written permission address Joseph Capital Management, LLC, Attn: Ron A. Rhoades, 2450 N. Citrus Hills Blvd., Hernando, FL 34442-5348.

For additional copies of this book or for bulk purchasing information, please call Joseph Capital Management, LLC at 1-866-746-4460.

Printed in the United States of America

ISBN 0-9744512-0-7

This book is dedicated to the memory of  
Alvah L. Cox, Jr., C.P.A. (1943-2003),  
2000-2003 Chairman of the Board, Joseph Financial Group.  
Our mentor, partner, guide and friend.  
We will miss you, "Big Cheese."

## PREFACE

For many years we have served as counselors and advisors to a large number of clients - retirees, executives, small business owners, entrepreneurs, and working families. Far too often new clients come to see us who have endured repeated and significant losses in their overall investment portfolios based upon “professional advice” from their stockbroker or other “investment counselor.” While to some degree occasional portfolio losses will occur, many investors reported portfolio declines of 40%, 50%, 60% and even more from early 2000 through early 2003. Such extreme volatility in portfolios *should not be acceptable*. We were driven to write this book to aid individual investors to understand how Wall Street really works, to educate investors on how to avoid the many traps which might arise in the investment process, and to demonstrate how to achieve long-term investment success while keeping risk to reasonable levels.

In our view traditional Wall Street firms have utterly failed the individual investor. “Wall Street” in its traditional form is an archaic system which includes:

- A compensation system based upon commissions, 12b-1 fees, and the sale of “proprietary” (i.e., “in-house”) products, leading to inevitable conflicts of interest for the registered representative (stockbroker / salesperson);
- Completely inadequate training of the vast majority of investment advisors in strategic asset allocation concepts, taxation, and financial and estate planning;
- High fees and costs relating to the vast majority of investments and products; and
- Misleading marketing which promises that a firm out there has some “crystal ball” - some unique insight into the markets from which investors might profit - when in fact there is no credible evidence that suggests that such forecasting of the markets or individual security prices works consistently over the long term.

We believe traditional Wall Street firms are, for the most part, dinosaurs - and the next “extinction event” is in the process of arriving.

By contrast, thanks in part to the continued development of databases and computers, in the past twelve years dramatic progress has been made in academic circles. New research has confirmed the failures of traditional Wall Street and “active portfolio management” and at the same time has illuminated those few strategies which can succeed. As a result, investors can now:

- Access an enormous body of historical evidence on the performance of stocks, bonds, mutual funds, and other investments;
- Obtain a common sense understanding of the inevitable relationship between risk and return in our capital markets;
- Develop a deeper understanding of the absolute need to keep costs and taxes to a minimum;
- Receive “fee-only” investment advice from independent advisory firms, without the inherent conflicts of interest posed by commissions, 12b-1 fees, contingent deferred sales charges, and proprietary mutual fund or other product sales;
- Through independent fee-only advisors, gain access to some of the finest, lowest-cost investment products available today, some of which were previously only available to pension plans and other forms of institutional investors.

In this book we’ll explore the many aspects of the academic research promulgated by Nobel Prize winners and professors of “financial economics.” We’ll learn how to apply that research to construct investment portfolios that withstand the test of time.

Our goal is to educate you, the reader, so as to make more informed investment decisions. The focus of this book is on investment management and, as such, we can only touch on the many aspects of financial, tax, estate and asset protection planning that also compose part of a coordinated plan. We encourage readers to ensure that their investment management decisions are properly coordinated with other aspects of their personal and business lifetime and testamentary planning.

This book is built upon many foundations. We are indebted to the many researchers and authors who have led the way. While space limits us, we are compelled to pay tribute to several authors, including Professor Burton Malkiel (*A Random Walk Down Wall Street*), Mr. John Bogle (*Common Sense on Mutual Funds* and other books and articles, and founder of The Vanguard Group), and Mr. Larry Swedroe of Buckingham Asset Management (*What Wall Street Doesn't Want You To Know*, *Rational Investing In Irrational Times* and other books). We are deeply indebted to our friends at Dimensional Funds Advisors, and in particular to David Butler, C.F.A., Regional Director, of that firm for their ongoing support and encouragement. Finally, we pay tribute to the ground-breaking research synthesis provided by Professor Eugene Fama, Sr. (the Robert R. McCormick Distinguished Service Professor of Finance at University of Chicago Graduate School of Business) and Professor Kenneth French (the Carl E. and Catherine M. Heidt Professor of Finance at the Tuck School of Business at Dartmouth College) and their ongoing efforts to enhance education and research into strategic asset allocation and its application to the portfolios of individual investors.

Finally, without the aid of our spouses we could not continue in our mission of service to others. We are eternally grateful to Cathy, Karen, and Mary Ann, respectively, for their ongoing support, understanding and love.

Ron A. Rhoades (seated)

Michael J. Tringali (standing, right)

John J. Ceparano (standing, left)

August 18, 2003



# CONTENTS

## **Part One: Fundamentals of The Science of Investing**

1. An Introduction To “The Science of Investing”
2. What’s An Asset Class?
3. Capitalism, Risk, Return and Investing
4. The Search for (More) Asset Classes

## **Part Two: Exploring The Value and Small Cap Effects**

5. Uncovering “Value” In Investing
6. Returns of Value Stocks vs. Growth Stocks Over Time
7. Small Company (Stocks) Can Be Good
8. The Case For Small Cap Value
9. The Future Of Stock Returns By Asset Classes - Small Cap Stocks
10. The Future Of Stock Returns By Asset Classes - Large Cap Value Stocks
11. The Future Of Stock Returns By Asset Classes - Small Cap Value Stocks

## **Part Three: Risks To Avoid and Minimize**

12. Diversify Among Asset Classes To Minimize Market Risk: "Correlation"
13. Minimize Market Risk With International Investments
14. Inflation Risk: The Case For Investing In Stocks
15. Market Risk: How Much Of Your Investment Portfolio Should You Allocate To Equities?
16. Market Risk: Minimize Through Rebalancing
17. Diversify To Avoid Specific Company Risk: The Essential Role of Mutual Funds
18. The “Efficient Market” and the Case For Passive Investing
19. Interest Rate Risk and Default (Credit Quality) Risk
20. Cost Risk: The Good, The (Disclosed) Bad, and The (Undisclosed) Ugly Sides of Mutual Funds
21. Tax Risk: Minimizing The Tax Drag On Your Investment Returns

## **Part Four: Choosing The Best Investment Products**

22. Large Company Balanced Stock Mutual Funds
23. Large Company Value Stock Mutual Funds
24. Small Company Balanced Stock Mutual Funds
25. Small Company Value Stock Mutual Funds
26. International Developed Markets Stock Mutual Funds
27. International Emerging Markets Stock Mutual Funds
28. Tax-Managed Stock Mutual Funds
29. Bonds and Bond Mutual Funds
30. Real Estate as an Asset Class
31. Why You Should Avoid Variable Annuities

## **Part Five: Pulling It All Together To Build Investment Portfolios**

32. What Investment Return Do You Need?
33. Sample Portfolios and Their Expected Volatility and Returns
34. A Focus On Investors (Not Investments)
35. Counter Emotion and Uncertainties With A Disciplined Approach To Rebalancing
36. Learning From The Prudent Investor Rule
37. Should You Work With An Investment Advisor? If So, Who?
38. A Lifetime of Learning

## **Appendices**

- A. Sources of Information
- B. Suggested Readings For Individual Investors
- C. Suggested Readings For Investment Advisors
- D. Glossary of Investment and Financial Terms
- E. More About The Vanguard Group and Dimensional Funds Advisors
- F. Index

**Part One:**  
**Fundamentals of The Science of Investing**

# Chapter One: An Introduction to “The Science of Investing”

## A Summary of The Key Concepts In This Chapter:

- ✓ Academic research from major universities over the last 50 years, and particularly over the last 12 years, has revealed what works and what does not work in investing.
- ✓ There are several strategies that can be applied to an investment portfolio that will enhance your efforts to achieve your lifetime financial goals.
- ✓ There are many mistakes in the investment process that must be avoided. Making even one mistake could substantially detract from the achievement of your lifetime financial goals.
- ✓ It's never too late to become a better investor.

***Earn More Of The Returns The Market Offers.*** Many individual investors in stocks, bonds and mutual funds today are likely to earn only a fraction of the investment return offered by the capital markets as a whole. Why? Is there some grand conspiracy against individual investors? (No.) But this begs the question - “If the average individual investor only gets only a fraction of the returns - who gets the rest?” Join us as we uncover the truths about the world of investing. We’ll explore the opportunities that are present for you - the individual investor. We’ll uncover the common mistakes individual investors make and learn how to avoid them. We’ll learn how to reduce risk - not by staying on the sidelines as others reap the long-term rewards available in the stock market - but through the application of academically sound strategies designed to enable you to reach your long-term financial goals.

***The Investment Knowledge Revolution.*** Over the past 50 years there has been a revolution in the world of investing. No longer must we “guess” as to which investment strategies work or don’t work. With the aid of computers and modern statistical analysis, academic researchers working in universities and other institutions worldwide have uncovered deep insights into the world of investing. Your knowledge of these insights can make you a better investor, whether you choose to invest “on your own” or with the aid of a stockbroker or investment advisor. In the chapters that follow you’ll learn how recent developments in financial economics - the study of risk and return in our capital markets and their application to investors - can propel you to a more secure financial future. The beginnings of the “investment knowledge revolution” commence over 50 years ago. Let’s review the evolution of this knowledge, as shown by the following summary of key concepts developed in the academic world:



**1952 Harry Markowitz** (Nobel Prize in Economics, 1990)

The relationship of securities to one another, as part of a portfolio, govern the risk-reducing benefits of diversification. Risk and return are related, and risk is related not only to the risk of the individual security but also to the risks of the individual components of an investment portfolio. Risk therefore can be quantified and measured through standard deviation. “Portfolio Selection,” *Journal of Finance* (1952)



**1964 William F. Sharpe** (Nobel Prize in Economics, 1990)

Every investment carries two distinct risks, Sharpe’s Capital Asset Pricing Model (CAPM) explains. One is the risk of being in the market, which Sharpe called systematic risk. This risk cannot be diversified away. The other—unsystematic risk—is specific to a company's fortunes, and can be mitigated through diversification among individual securities.





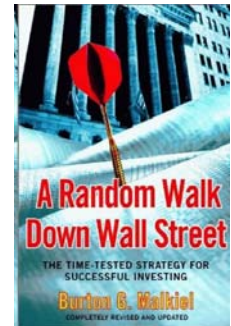
**1965 Professor Eugene F. Fama, Sr. of the University of Chicago Graduate School of Business**

In an active market that includes many well-informed and intelligent investors, securities will be appropriately priced and reflect all available information. If a market is efficient, no information or analysis can be expected to result in outperformance of an appropriate benchmark. "Random Walks in Stock Market Prices," *Financial Analysts Journal*, September/October 1965 (reprinted January-February 1995).



**1973 Professor Burton G. Malkiel of Princeton University**

In the first edition of *A Random Walk Down Wall Street*, Professor Malkiel set forth many of the intellectual underpinnings of index-fund investing and portfolio diversification, and cast aside many of the myths surrounding active management. In 2003 the 8<sup>th</sup> edition of this classic text was published.



**1975 John Bogle, Founder, The Vanguard Group**

The world's first major index fund, now the Vanguard Index 500, was formed by John Bogle. Vanguard set the early standard for low-cost investment management, and as of 12/2002 has \$557 billion invested in over 100 different mutual funds.





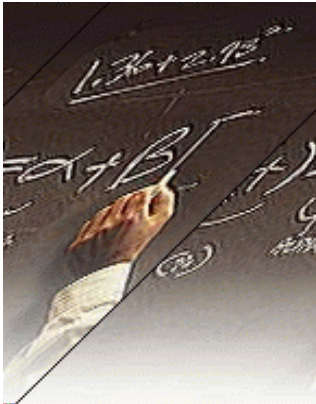
### 1981 Rolf Banz, Ph.D.

In 1981, a newly-minted Chicago Ph.D. named Rolf Banz released "The Relationship Between Return and Market Value of Common Stocks" (Journal of Financial Economics, 9, 3-18). The conclusion was startling: Over the previous half century (1931-74) small-company stocks had thrashed the market's giants. This new evidence dovetailed beautifully with modern portfolio theory's insistence that risk was inevitably linked with return. Since small-cap stocks unquestionably carried higher risks, they certainly would deliver higher returns.



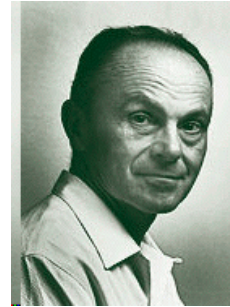
### 1981 Dimensional Funds Advisors

David G. Booth and Rex A. Sinquefeld found Dimensional Funds Advisors (DFA) and launched their first mutual fund, a small-cap stock fund available initially only to institutional investors. DFA has \$35 billion under management (as of 12/02) for institutional clients and for the clients of selected investment advisors. DFA applies academic research to construct mutual funds which seek to best capture the returns of an asset class. Investment advisors then utilize these asset class mutual funds to construct diversified portfolios for their clients. Results of the practical application are then provided back to the academic community.



**1992 Eugene Fama, Sr. and Kenneth French and  
The Three-Factor Model Of Determining Portfolio Returns**

In a ground-breaking paper Professors Fama and French assert that the price effect (the distinction between “growth” and “value” stocks, as measured by price-to-book ratios) and the size effect (the distinction between large and small capitalization stocks) are the variables that have the strongest relation to returns in stocks. Together with the market effect (the exposure of a portfolio to stocks, as opposed to fixed income investments), these three factors explain the vast majority of the expected returns of a portfolio. Building on this research, Dimensional Funds Advisors engineers portfolios designed to capture the higher historical returns offered over the long term by developing mutual funds within the large cap value and small cap value asset classes.



*Let's Go "Beat The Market."* It's the ultimate thrill game - coming home from work or that pleasurable outing, turning on the tube or lighting up the Internet and checking on the stock market. Each day and night you can listen to the many pundits who are more than happy to pass on their latest “hot tip” or prognostication. Seems like everywhere you turn someone has advice to offer as they pull out forecasts of stocks or the market overall from their “crystal balls.” But can anyone pick the right stocks, or pick the right mutual fund managers? Sure they can - in any given year a substantial number of forecasts will be right. However, can these same forecasters do it consistently, year after year, decade after decade? That's the rub - today's investment celebrity is highly unlikely to be an investment guru years from now, and instead is far more likely to land in the pundit's graveyard - “off the air.” Sadly enough, of winning investment managers, their time in the sun is far too short for us to obtain a good, multi-year tan.

We don't profess to have crystal balls, and we don't believe anyone else has them tucked away either. However, we can use scholarly research to examine the history of the returns in various parts of the stock market. Carefully culled from databases consisting of decades, and even centuries, of U.S. and world individual stock returns, professors at leading universities have uncovered historical investment trends that repeat again and again. Their findings? Investors using some strategies have been able to “beat the market” (i.e., “beat the S&P 500”) over long periods of time (defined as 10 years or more), and have done so with a very good amount of

consistency. And - here's the really good news - the rational explanations for these past market-beating strategies appear to be as sound today as they were over the past many decades.

Halt! No one can predict *with absolute certainty* that a particular strategy will “beat the market” over the long term, and most investment attempts to do so fail over long periods of time. However, there does exist *sound academic evidence* backing a very few investment strategies which are highly likely to succeed. In this book we explore this academic research and reveal how you can apply these investment strategies to your portfolios.

**Addition and Subtraction.** Below we summarize those strategies that can assist you in reaching your financial goals, followed by mistakes that can detract from your achievement of success. The goal of this book is to enable you to apply the positive strategies set forth below while avoiding the many pitfalls which can occur during the investment process.

<b>Eight Strategies That Will Aid You In Achieving Your Long Term Goals</b>	
Invest Part of Your Portfolio In Stocks To Counter The Risks Posed By Inflation	Pay Attention To Bond Credit Quality
Invest Part of Your Portfolio In Value Stocks To Enhance Returns	Keep Bond Maturities At Reasonable Levels
Invest Part of Your Portfolio In Small Company Stocks To Enhance Returns	Create and Adhere To An Investment Policy
Invest Part of Your Portfolio In International Stocks To Reduce Volatility	Rebalance Your Portfolio Periodically Or Upon Significant Change

<b>Eight Potential Mistakes - Any One of Which Can Defeat Your Chances For Success</b>	
Failure To Diversify Among Individual Securities	Paying Too Much In Hidden Transaction and Opportunity Costs
Failure To Diversify Among Asset Classes	Losing Too Much to Taxes
Mistaking Past Investment Management Success For Skill	Lack of Emotional Fortitude; Failure To Adhere to An Investment Discipline
Paying Too Much In Disclosed Fees and Costs	Not Planning For Inflation

In the chapters ahead we'll explore the foregoing strategies and mistakes. Join us as we enter the world of *The Science of Investing*.

## Chapter Thirty-Seven: Should You Work With An Investment Advisor? If So, Who?

### A Summary of The Key Concepts In This Chapter:

- ✓ The need for professional advice can arise for many reasons, such as the inability (or unwillingness) of the individual investor to devote time to learning, the difficulty in seeing truths through the fog of misinformation produced by Wall Street, the new research and products which are constantly produced and which should be reviewed and evaluated, and the potential inability of the individual investor to stick to an adopted discipline without assistance.
- ✓ Necessary qualifications of advisor include communicative skills, a broad range of knowledge, the ability to address your unique concerns, objectivity, and a commitment to care for others.
- ✓ The holistic investment advisor adds value through comprehensive planning and the attention given to your attainment of life's goals.
- ✓ Investors working with professional advisors should seek out fee-only registered investment advisors who possess access to the funds of Dimensional Funds Advisors. Investors who seek to invest on their own should normally stick with the low-cost index mutual funds of The Vanguard Group.

***The Decision To Seek Advice.*** When should you invest “on your own,” and when should you seek the aid of a knowledgeable investment advisor? We have a series of questions for you.

1. How well can you weed through the mountain of information produced each day by Wall Street? If you're like many, you may suffer from “information overload.” We recall a professor who stated that the key to becoming really good in a field of study was knowing not only what

to read but, more importantly, what to ignore. With Wall Street's tremendous marketing machine rarely talking about many of the concepts explored in this book but instead sprouting marketing-oriented garbage, there's a lot out there that should be ignored. Important readings on new tax laws and financial planning strategies often go ignored by the average investor. It may be increasingly difficult for the individual investor to cut through the "investment noise" which is out there, in order to focus on those issues which really matter most.

2. Are you keenly interested in the concepts we've set forth in book? We don't see a lot of investors who desire to read academic journals on strategic asset allocation, the cost of capital, and the application of Modern Portfolio Theory. As academic research continues we anticipate new insights are gained into the measurement and minimization of risk. The producers of investment products are bound to offer new types of investment products, and perhaps better versions of current investment products. Keeping current with the academic research requires both a high degree of attention and access to the many sources of academic papers now produced by the academic community.

3. Do you want to devote time to the study of the capital markets and scientifically-based investment strategies? Many persons would prefer to devote time to the attainment of life's goals.

4. How disciplined are you in adhering to an investment strategy? Proper investment strategy is a psychological challenge as well as an intellectual challenge. It takes a lot of emotional fortitude to "buy low" and "sell high" - when every gut reaction tells you to do the exact opposite as the markets rise and fall.

While the answers to these questions may reveal quite a lot about your desire, and need, for professional investment advice, we must also consider the qualifications of an investment advisor and the value that such investment advisory services will provide to you.

***What Should You Expect From A Financial Advisor?*** If you are going to pay an "expert" to assist you in managing your wealth and finances, what should you expect? We believe the holistic investment advisor of today must possess all of the following:

- Communicative skills;
- A broad range of knowledge;

- The common sense application of that knowledge to address your unique concerns;
- Objectivity (trust);
- A commitment to care.

First and foremost, your investment advisor must possess the ability to listen to you, to understand your past, and to learn about your wants, needs, and goals. In addition, your investment advisor must be committed to an ongoing process of education for you, in clear parcels of information you can understand and absorb, about the issues which affect your planning. The investment advisor-client relationship is an ongoing “partnership” to secure and maintain for you “financial freedom.” By necessity, such a partnership requires the free exchange of information and ideas. Seek out an investment advisor who encourages periodic conferences with you, and who will assist you in defining, planning for, and realizing your lifetime goals.

Second, your investment advisor must be knowledgeable. The investment advisor of today should possess a holistic, comprehensive base of knowledge about income taxes, estate planning, estate and gift taxes, the many aspects of financial planning, asset protection planning, and investment theory. It’s a complicated world - and your investment and financial advisor should possess the skills to aid you in navigating through it all. In addition, the investment advisor of today must be committed to a lifelong process of ongoing learning, including study of the research arriving from the halls of academia. You should look for investment advisors who have mastered these areas, either individually or through the utilization of a close-knit team. Seek out investment advisors who employ the strategic asset allocation and diversification principles we suggest here. Sadly, most “investment counselors” today receive far more training on how to achieve their sales goals.

Third, investment advisors must possess the ability to apply their knowledge in a common-sense manner to your particular situation. There is no “canned” approach that works for everyone. Instead, investment advisors should assist you in the development of your *personal* Investment Policy Statement. In addition, comprehensive planning (beyond the central focus of a written investment policy statement) can greatly assist you in protecting what you have acquired, identifying future obstacles which may confront you, and much more.

Fourth, the investment advisory relationship between the advisor and client must be founded upon trust. The investment advisor should be a fiduciary - committed to your best interests, and no one else's. To this end, you need to ask several questions: Is the investment counselor working for you - or working for someone else? Who pays him or her? What determines his or her compensation? Are any products sold on a commission basis? Are there any "sales loads" or contingent deferred sales charges? Are there any 12b-1 fees? Does the advisor possess a "fiduciary oath" similar to the one at right, and is that oath part of your written agreement with the advisor?

We believe that an investment counselor who gets paid on a commission basis - being paid to sell a product - possesses an inevitable conflict of interest. Also, advisors who push the products (mutual funds, annuities) manufactured by their own firms cannot be either "disinterested" or "objective." If you want an objective advisor, we suggest looking for one that receives absolutely no third-party compensation (i.e., any compensation which are tied to the sale of an investment product). In other words, seek out advisors who do not possess any conflicts of interest.

Arthur Levitt, former Chairman of the Securities and Exchange Commission, wrote in his recent book: "How serious are the conflicts between broker and investor? Serious enough that a former top official of a major brokerage firm confessed to me privately that he would not send his mother to a full-service broker." *Arthur Levitt, Take On The Street* (New York: Pantheon Books, 2002). Tough words from a former president of a major stock brokerage firm. We suggest that you seek an advisor who receives compensation solely from you and discloses any and all potential conflicts of interest. Always know exactly how, and how much, the investment

### *Our Fiduciary Oath*

We shall exercise our best efforts to act in good faith and in the best interests of our client.

We shall provide written disclosure to our client, prior to our engagement, and thereafter throughout the term of the engagement, of any conflicts of interest which will or reasonably may compromise either our impartiality or our independence. At the present time we possess no such conflicts of interest.

We shall not receive any commissions or other remuneration that is contingent on our client's purchase or sale of a financial product. We shall not receive any commissions, 12b-1 fees, sales awards, or any fee or other compensation from another party based on the referral of a client or the client's business or the purchase of any product.

advisor is getting paid for giving you advice. The need for an objective advisor, who has every incentive to act in your best interests, and whom you can trust, is paramount.

Lastly, your investment advisor must have a personal philosophy in which he or she cares for the people around him - family, friends, co-workers, and clients. Life's central purpose is neither about academic research nor about the accumulation of wealth. Rather, life is given meaning by the positive impact that one's life has on the lives of others.

***The Value Added By Qualified Investment Advisors.*** There are many other benefits to individual investors working with knowledgeable and objective fee-only investment advisors, other than merely providing access to investment products, including:

- ▶ Reduced overall costs and fees in connection with investment management through the use of low-cost, passive index funds, a laddered municipal bond portfolio (if appropriate), and other suitable investments;
- ▶ Reduced income taxes (after adjustments are undertaken) attributable to your investments over time through the use of tax strategies and low-cost tax-managed mutual funds;
- ▶ Reduced level of market risk (volatility) through the use of asset allocation techniques based upon the scientific work performed by the late Nobel Laureate Merton Miller, Professor Eugene Fama, Sr. of the University of Chicago, Professor Kenneth French of Dartmouth, and many other academics and researchers;
- ▶ Reduced level of interest rate risk through an approach of extending bond and bond fund maturities only when, and to the extent, such risk is adequately rewarded; and
- ▶ Peace of mind knowing that your investments are handled with great care by a professional (or a team of professionals) who are acting solely in your best interests.

Not Every Registered Investment Advisor  
Acts In The Client's Best Interests

A recent widow with approximately \$2,000,000 in publicly traded investments approached our firm to receive comprehensive advice. In examining her current investments, we determined that she was with a registered investment advisory firm charging an annual fee of 1.75%. Worse yet, that investment advisory firm engaged in a substantial number of trades of stocks within the account, resulting in a 350% annual turnover. Why such high turnover? One reason might be the commissions the associated brokerage firm was receiving - usually \$200 to \$400 on each trade. (So much for the duty of an investment advisor to ensure "best execution.") In addition a portion of the widow's account were invested in high-cost, high-turnover mutual funds of another company also associated with the investment advisory firm. Adding up just the "disclosed" fees, we determined that the widow was paying at least 2.85% a year (\$57,000 a year) for investment advice which was *supposed to be* in her best interests. Even worse was the 90% allocation of her investments to stocks and the substantial large cap growth and small growth tilt in her overall portfolio.

Whenever you work with a registered investment advisor - ask about all of the fees relating to the investment process. Determine if those fees are reasonable in light of the services and advice which is provided.

The actual professional services provided by a holistic investment advisor may include:

- ▶ Comprehensive financial and tax planning;
- ▶ Coordinated estate and asset protection planning, which may include assistance with the planning of gifts and bequests to charitable organizations or charitable trusts or foundations;
- ▶ Fee-only, objective investment management. The advisor acts as a fiduciary to the client, receiving compensation only from the client, with no commissions or other forms of compensation received from any other firm or entity. This enables the investment advisor to act solely in the client's best interests.
- ▶ Continuous management of the client's investment portfolio using a disciplined approach to strategic asset allocation and rebalancing;
- ▶ Conferences, including several during the initial period to develop and present an overall plan and investment policy statement, followed by periodic (often semi-annual or quarterly) conferences thereafter, plus additional conferences as needs arise;

- ▶ Assistance in the development and monitoring of a “roadmap” for the planning and attainment of the client’s lifetime financial goals;
- ▶ Assistance with major financial transactions if desired (such as the purchase of a car, the construction or purchase of a home, etc.);
- ▶ Newsletters and group educational conferences to keep the client informed on the latest trends and developments affecting financial planning and investment management;
- ▶ Conferences with the client’s heirs and others who may assist the client in the event of incapacity or manage the client’s trust or estate after the end of the client’s lifetime;
- ▶ Assistance to a surviving spouse, and assistance to other family members, if desired, in their planning and investment management, often at reduced rates than they could achieve on their own.

***Clients With Advisors Granted Access To DFA Funds: “DFA 6½ (or more), Vanguard 1½.”***

The mutual funds from Dimensional Funds Advisors (DFA) wins out in three of the four U.S. stock asset classes we surveyed, as well as in three of the four international developed stock asset classes (with a tie in the other). DFA also prevails in the area of tax-managed stock mutual funds - a significant advantage for investors who possess investments in taxable accounts, emerging markets funds, and mutual funds holding REITs. In the large cap balanced asset class Vanguard does a bit better in replicating the S&P 500 while minimizing trading costs, by a small margin (but DFA’s Enhanced Large Company Portfolio may be a better choice for IRA accounts). For bond index funds, both DFA and Vanguard offer good choices (and take different approaches). Overall, Dimensional Fund Advisors’ mutual funds best capture the returns available from the many asset classes.

Is the use of an investment advisor to access DFA funds worthwhile? Most registered investment advisors charge a 1% annual fee (higher for smaller accounts, lower for larger accounts) based upon “assets under management.” Our firm, and other advisors who have reviewed the issue, have concluded that DFA’s funds are likely, in an overall stock fund-only investment portfolio, to possess a performance advantage of approximately 2% overall, over the long term, as a result of the fund’s engineering and design. Is spending 1% to get a 2% return (for a net expected additional return of 1%) on the stock mutual fund portion of the portfolio worthwhile? It appears so, especially if the asset allocation to stocks is 50% or greater. Of

course, investors also receive all of the other benefits of working with a fee-only advisor, aside from just accessing DFA's mutual funds. In any event, it is certain that investment advisors utilizing DFA funds offer a significant overall cost and long-term performance advantage to the individual investor when compared to the vast majority of full service brokerage firms.

*For The "Do-It-Yourselfer."* For investors who desire to pursue these strategies "on your own," we recommend that you utilize Vanguard or other low-cost index funds which may be available to the individual investor directly. As mentioned above, the performance of Vanguard's stock mutual funds is not predicted to be as great (in all but one asset class) of that of the comparable funds from Dimensional Funds Advisors, and hence the wisdom of "going it alone" is subject to question. Nevertheless, "experienced" and "skilled" investors who desire to devote the time and effort to constructing and managing their investment portfolio, including the management of the tax implications of investments, may nevertheless desire to remain independent of investment advisors.

*More Investment Choices In The Future? Please?* In this book we have given laudatory comments about Dimensional Funds Advisors' mutual funds, and we believe we have been fair in our reporting of the advantages these mutual funds possess. (Neither the authors nor our firm are compensated in any manner by either Dimensional or Vanguard.) In many of the asset classes we have surveyed we have recommended Dimensional's funds - because they are the best currently available. If a new fund arrives which employs an even better overall approach to capturing the returns of an asset class while keeping costs and risks minimal, we will recommend it.

We are curious why the large mutual fund companies with modest fees (Fidelity, TIAA-CREF, T. Rowe Price, and Vanguard, among others) have not undertaken steps to also establish mutual funds designed not around an index that divides a market into two segments (with both segments often making up the whole), but rather based upon academic research. In addition to defining "asset classes" better, passive mutual funds can employ trading rules that limit transaction costs even further than they are limited for most index funds today. We have heard of no plans by the major mutual fund companies to follow Dimensional's lead, which is disappointing both to us and for investors.