

# Index FUNDS

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*The 12-Step Program for Active Investors*



by Mark T. Hebner

IFA Publishing  
Irvine, California

This book is dedicated to my Mother, Terry, Brie, Kory, Ian, Beth and Tyler.

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## ABOUT THE AUTHOR



Mark T. Hebner has been the founder, president and CEO of three companies, one of which became a publicly held corporation. He has made a dozen investments in private companies and has owned a substantial portfolio of stocks and bonds for more than 20 years. He earned an MBA with honors from the University of California, Irvine, and graduated with a degree in nuclear pharmacy from the University of New Mexico. Hebner was a member of the Young Presidents'

Organization from 1984 to 2002 and is currently a member of the World Presidents' Organization and the Chief Executive Organization.

Like many other investors, his conversion to the indexing investment philosophy began when he came to realize his investment portfolio was not performing anywhere near market averages. After selling his interest in his public company in 1985, Hebner utilized the services of several stockbrokers at nationally known firms. His primary broker matched Hebner's high-risk capacity with a low-risk exposure portfolio of mostly fixed income and a rotation between oil, gold, blue chip, and technology stocks. After a major loss of investment opportunity through this strategy,



Hebner became so interested in the idea of indexing that he started Index Funds Advisors, a Registered Investment Advisory (RIA) firm in Irvine, California. He and a team of writers, artists, Web designers, statisticians, and researchers have built a very comprehensive Web site, [www.ifa.com](http://www.ifa.com), which provides elements of this book, numerous videos, several risk capacity surveys, and dynamic charts explaining the advantages and rock solid

logic of a tax-managed, globally diversified portfolio of index funds matched to an investor's risk capacity. Hebner hopes to educate investors, so they won't have to look back 15 years from now and discover they did not achieve the return they had the capacity to earn.

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## PREFACE

**T**he financial services industry has a dark secret, one that costs global investors about \$2.5 trillion per year. This secret quietly drains the investment portfolios and retirement pension accounts of almost every worker and retiree. In 1900 French mathematician, Louis Bachelier, unsuspectingly revealed this disturbing fact to the world. Since then, hundreds of academic studies have supported Bachelier's findings. Unfortunately, investors pay little attention to academics and Nobel laureates.

The dark secret is that managers don't beat markets. The fact is that markets outperform managers by a substantial margin over long periods of time. This book offers overwhelming proof of this, while showing investors how to obtain an optimal rate of return by matching their risk capacity to an appropriate risk exposure. That risk exposure is a globally diversified portfolio of index funds.

My own journey to this unsettling truth began in 1985. It was then that I received about \$6 million for the sale of a company I had co-founded. I immediately turned my newfound fortune over to a major brokerage firm with a stellar reputation and a fancy office in a towering skyscraper. How could I go wrong?

Like many investors, I didn't take the time to learn how the stock market works. I was completely unaware that since 1930 academic researchers had been applying scientific and statistical analysis to large sets of stock market data. It wasn't until 12 years later that I finally decided to figure out how my investments had performed compared to appropriate benchmarks. As I spent months combing through bookstores and surfing the Internet for information, the knot that had formed in my stomach grew tighter. I was distraught about what I discovered, and didn't sleep well for several nights. It turned out that my lack of understanding of how markets worked had



cost me a mind boggling amount of money. When comparing a risk appropriate portfolio of index funds with what I actually achieved in my own portfolio over the last 20 years, I have ended up with at least \$30 million less. I repeat, my portfolio earned \$30 million less than a simple index fund portfolio. Did I really have to pay \$30 million in tuition to finally get my degree from the University of Index Funds (UIF)?

My first course of action was to move my assets into index funds managed by Vanguard. But, after more research, I discovered that despite Vanguard's superiority in the index arena, there was a better firm out there. This firm is Dimensional Fund Advisors (DFA). After this discovery, I started a new business, Index Funds Advisors, to educate and advise others about achieving optimal market rates of returns. Along with a host of other services, my firm offers an extensive and interactive Web site, [ifa.com](http://ifa.com), to educate investors about investing in index funds.

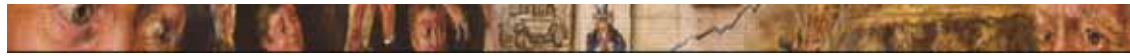
The knowledge I gained through my research enabled me to begin asking the right questions about my risk exposure and the performance of my investments. But, how many others were still in the dark? To answer that question, I spent several weeks asking friends what they knew about the capital markets. I wanted to know how much tuition they themselves had paid to UIF. The more I inquired, the more astounded I became at the lack of knowledge and poor returns achieved by almost everyone I knew. One morning it occurred to me that investors just follow their natural born instincts to trade and to try to

predict the future. This behavior, which is akin to a gambling addiction, is driven by the possibility of striking it rich overnight. For its part, the financial services industry is addicted to the massive profits it earns from its clients' gambling. The industry is content to keep its dark secret locked up in the mathematical formulas of *The Journal of Finance* or a university text book. The secret is safe there as the overwhelming majority of investors do not have the time or the inclination to decode the complexities of investing. Riskese, the language of risk, is especially difficult for the average investor to master. Therefore, most continue to place their faith in the mystical powers of market beating gurus.

So, how can investors break these destructive patterns of investing? The same way 30 other addictions are addressed: with a 12-step program. This book explains my program, Active Investors Anonymous, the recommended treatment of choice for wayward investors.

I am passionate about my mission to clear the smoke and mirrors designed to conceal the failure of active management. Ultimately, my goal is to lead investors to a highly efficient, tax-managed, low-cost and risk appropriate index portfolio.

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## THE SHORT BOOK ON INVESTING

### What every investor should know about how capital markets work.

Before learning about the differences between index funds investing and active investing in the *12-Step Program for Active Investors*, it's important to gain an understanding of the following key concepts:

#### 1. The Random Walk Theory:

Markets are moved by news. News is unpredictable and random by definition. Therefore, the market's movements are unpredictable and random. This concept is known as "The Random Walk Theory." On the bright side, market randomness carries a positive average of about 10% per year thanks to the success of capitalism. Oftentimes, active managers who claim to outperform a market average or index imply that they have the power to predict tomorrow's news. But, it's impossible to consistently predict the future. The truth is active managers post unpredictable and random results. Louis Bachelier first discussed "The Random Walk Theory" in 1900 in his paper titled "The Theory of Speculation." Since then a large body of academic research has lent credence to the theory. The largest single compilation of this research can be found in Paul Cootner's "The Random Character of Stock Market Prices," a 500-page collection of research papers on the randomness of the market. Next on the list is, "Proof that Properly Anticipated Prices Fluctuate Randomly," a paper written in 1965 by Nobel laureate in Economics and MIT Professor, Paul Samuelson. Also, in 1965, University of Chicago Professor Eugene

Fama wrote his highly regarded papers, "Random Walks in Stock Market Prices" and "The Behavior of Stock Market Prices." Once this extensive research is understood, investors will be convinced of the randomness of stock market prices.

**2. Skill or Luck:** Occasions where actively managed funds beat index funds are attributable to luck, not skill. Time and again research has shown that after costs, the return on the average actively managed dollar will be less than the return on the average passively managed dollar. Actively managed funds may occasionally beat index funds. However, market beating performance in a random market is due to luck, not a skill that is repeatable. Studies show that only about 3% of active managers beat an appropriate index over a 10-year or longer period. It is nearly impossible to predict which manager might get lucky and beat the market. So, investors who have gotten lucky in the past should not expect a continuation of their good fortune.

**3. Index Portfolios Best Capture Risk and Return:** Actively managed investments are subject to higher risk and lower returns than a globally diversified, tax-managed, and small value tilted portfolio of index funds. Indeed, commissions, management fees, margin costs and taxes all chip away at the returns on actively managed investments and line the pockets of brokers, mutual fund managers, and hedge fund managers. A recent University of California, Davis, study showed that 82% of the 925,000 active traders on the

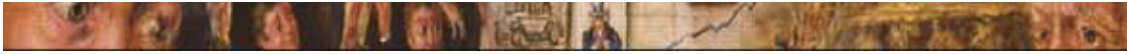


Taiwanese Stock Exchange lost money. Their losses added up to \$8.2 billion a year from 1995 to 1999. In addition, in a 2004 report on investor behavior, Dalbar, Inc. (Dalbar) found that the average equity investor earned a paltry 3.5% annually for the last 20 years, compared to 3.05% inflation and 12.98% for the S&P 500 over that same period.

**4. Capitalism Works Because Free Markets are Efficient:** Capitalism is a great idea that has worked for centuries. The world's stock exchanges facilitate a free market system that is the cornerstone of capitalism. These capital markets simultaneously price the cost of capital and the expected return from the risk of capitalism. Free markets perform this highly important task in the most effective and efficient manner because the knowledge of all investors exceeds the knowledge of any individual. Therefore, due to the millions of intelligent and highly competitive investors, it is unlikely that any individual investor will consistently profit at the expense of all other investors. From this we can conclude free markets work and current prices reflect the knowledge and expectations of all investors at all times. This concept is known as the Efficient Market Theory. When markets are efficient, active management is not a viable strategy and index funds best capture the market returns. If free markets were not more efficient than controlled markets, like those in communist countries, then it would stand to reason that the communists would be more prosperous than the capitalists.

**5. Returns From the Risk of Capitalism Rank Highest:** Capitalism has provided an annualized return of about 10% per year since 1926 and has the highest rate of return of all alternative investments tracked over periods of 50 years or more. That rate of return is explained by the difference between the low risk of capital and the high risk of capitalism. It is not the result of speculation in short-term price changes. There is no additional expected return from speculation above the average return. Gains from speculation are offset by losses in any random situation.

**6. Expected Returns Equal Cost of Capital:** The expected return for an investor (equity buyer) is equal to the cost of capital of the equity seller. A higher cost of capital for the equity seller translates to a higher expected return for the provider of capital (cash). A lower cost of capital for the seller of the equity translates to a lower expected return for the buyer (provider of the capital). Intelligent investors will estimate their expected return based on the risk of the equity, which is tied to the risk of the company. The higher the risk of the company, the higher its cost of capital, and the higher the expected return for the investor. The lower the risk of the company, the lower its cost of capital, and the lower the expected return for the investor. Investors who carefully match their risk capacity with their risk exposure have the best chance of obtaining the long-term historical returns of the global markets. A buy, hold, and rebalanced index portfolio strategy is the best method to capture those returns.



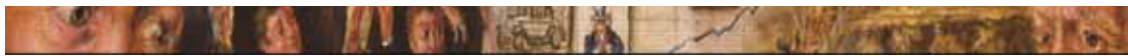
**7. Small Value versus Large Growth Companies:** Public companies that are unglamorous, small, and relatively cheap (small value) are riskier and have higher costs of capital than those that are glamorous, large and relatively expensive (large growth). To illustrate this point, a dollar invested in a Fama/French Index of small value companies in 1927 grew to \$40,095 by the end of 2004 (14.6% annualized return), and a dollar invested in a Fama/French Index of large growth companies grew to only \$1,152 over the same period (9.6% annualized return). When building diversified index portfolios, a tilt towards small value will enhance expected returns.

**8. Diversify, Diversify, Diversify:** Diversification is an investor's best friend because it reduces the uncertainty of expected returns, otherwise known as risk, without changing the expected return. Concentrating investments only adds risk, and does not increase expected returns. Risk can be defined as the uncertainty of obtaining an expected return. The numbers tell the story best. Any one stock in the S&P 500 has an expected return of about 10% per year plus or minus about 50% two-thirds of the years. However, the S&P 500 Index has the same 10% expected return, but it only has a risk of plus or minus 20% two-thirds of the years. So, 10% plus or minus 20% is far superior to and carries less uncertainty than 10% plus or minus 50%. Highly efficient portfolios of index funds have had returns of 14% per year with risks of 15.3% over the last 50 years, after fees. (See Index Portfolio 100 in Appendix A, which includes about 15,000

companies from 35 countries.) This is why buying the whole haystack (index) is better than looking for the needle (a stock) in the haystack.

**9. Selecting Index Funds:** Index fund investors have the option of investing with a handful of world-class companies including Dimensional Fund Advisors (DFA), Barclays Global Investors (BGI), and The Vanguard Group. All three firms offer excellent products for designing index portfolios. For several years, Dalbar has surveyed investment advisors and Dimensional Fund Advisors has been rated the top firm among all mutual fund companies. DFA provides academic style research, historical risk and return data, extensive investment advisor education and mutual fund products that reflect the leading academic research. It is the only firm that offers no actively managed funds. DFA constructs custom indexes and block trading strategies to capture certain risk factors and to maximize tax-management. They also restrict their shareholders, so as to minimize fund turnover and expenses for existing shareholders of their index mutual funds.

**10. Peace of Mind:** Don't let your retirement years be tainted by the discomfort of poverty. Reliance on family members or government programs for your financial well-being will be a source of unhappiness, insecurity, and low self-esteem. A prudent and intelligently managed investment portfolio of index funds has the highest probability of providing security and peace of mind in the years when it will be needed the most.



## THE 12-STEP PROGRAM FOR ACTIVE INVESTORS



**Step 1. Active Investors: Recognize an active investor.** Active investors hope to pick winners among the many stocks, times, managers or investment styles. But, the problem with the methods deployed by active investors is that markets are moved by news. News is unpredictable and random. Therefore, the movements of stocks, markets, managers, and styles are unpredictable and random. Markets are also efficient, meaning that news is rapidly reflected in market prices. As a result, active investing is not a viable strategy. The only reliable source of long-term returns is from consistent exposure to economic risk factors that have nearly 80 years of history.



**Step 2. Nobel Laureates: Recognize that Nobel Prize winners researched the market.** Nobel Prizes have been awarded to academics for their analysis of how stock markets work. The allure of their findings is that they're not biased by a need to earn a commission or sell you an IPO, magazine or newspaper. More than a hundred years of academic research has concluded that index funds are an investor's best investment. Sadly, the great majority of investors have never read these academic studies so they continue as active investors.



**Step 3. Stock Pickers: Accept that stock pickers do not beat the market.** The primary factor influencing the success of a stock picker is simply luck. In numerous studies, only about 3% of stock pickers beat their benchmark. Most stock pickers invest in stocks that have done well recently; however, those same stocks do poorly in subsequent periods. The performance of stocks is random, just like the news that influences their prices. Therefore, it is not possible to consistently pick stocks that will be top performers in the future.



**Step 4. Time Pickers: Understand that no one can pick the right time to be in or out of the market.** When 32 market timing newsletters were compared to the S&P 500 Index over a 10-year period, not one of them beat the broad market index. The primary reason for this inability to time the market is the high concentration of returns and losses that occur in a time period of a few days. In a 10-year period, about 88% of the total gain was highly concentrated in just 40 days. It is impossible to pick those 40 days in advance. Professors studied 15,000 predictions by 237 market timers and concluded that "There is no evidence that [market timing] newsletters can time the market."



**Step 5. Manager Pickers: Realize that the winning managers were just lucky.** The S&P 500 Index consistently outperformed 98% of mutual fund managers over the past three years and 97% over the past 10 years, ending October 2004. In two 30-year studies, the S&P 500 outperformed 97% and 94% of managers. In addition, only about 12% of the top 100 of managers repeat their performance in the following years. Therefore, it is not possible to consistently pick next year's hot mutual fund manager. Index portfolios consistently capture the risk and return of markets, which in a high risk index portfolio has been 14% annualized for the past 50 years, compared to 11% for the S&P 500.



**Step 6. Style Drifters: Comprehend active management style drift.** Most mutual fund managers drift from one recent winner to another playing fast and loose with investor's money. A fund's stated objective is altered by these style drifters. One study indicated that 40% of mutual funds drift from their originally stated style. To make matters worse for these drifters, style performance rotates randomly, and therefore it is not possible to consistently predict tomorrow's winning style.



**Step 7. Silent Partners: Recognize the partners in your returns.** There are partners that subtly take a large slice of your investment return. In taxable accounts, over a 15-year period, active investors keep only about 50% of the total return earned by their initial investment. Meanwhile, investors in index funds keep about 85% of the total return by maintaining tight controls over the silent and often invisible partners of high fees, expenses, cash drag, taxes, transaction costs and more. By minimizing the cost of these silent partners investors will increase their expected returns.



**Step 8. Riskese: Understand how risk, return and time are related.** Lawyers speak legalese and the best investors speak riskese. Learning the language of riskese requires investors to have a basic understanding of the concepts of risk, return, time, and correlation. Understanding riskese is essential for successful investing. Most investors instead chase the short-term returns of stocks, markets, managers or styles, and never truly understand the impact of risk, time, and correlation on their returns. The more fluent you speak riskese, the higher your risk capacity, risk exposure and expected returns.



**Step 9. History: Understand the historical risks and returns of indexes.** Long-term data is required to estimate the expected risk and return for different stock market indexes. We now have almost 80 years of monthly risk and return data on several important indexes. This mountain of empirical evidence proves that index funds are the most reliable and logical investment choice. Since you can not predict the future based on recent events, the study of long-term stock market data is the only source of probability distributions of the expected risk and return of investments.



**Step 10. Risk Capacity: Analyze your five dimensions of risk capacity.** A Risk Capacity Survey will help you determine your individual and unique risk capacity. Five dimensions of your risk capacity will be thoroughly measured resulting in a score and corresponding index portfolio. These risk capacity dimensions include time horizon, investment knowledge, net income, net worth, and attitude toward risk. This is your single most important contribution to the investing process, resulting in an Investment Policy Statement that will provide the guidelines for your financial future.



**Step 11. Risk Exposure: Analyze your five dimensions of risk exposure.** Over 90% of the returns of diversified portfolios of index funds can be explained by their exposure to five dimensions of risk. Those dimensions include market, size, value, term and default. Once investors have determined their risk capacity in Step 10, they will be matched to one of 20 index portfolios. Index funds are utilized to minimize taxes and maximize expected returns. A simulation of a properly designed index portfolio shows an outperformance over the S&P 500 Index by 3% annualized for the last 50 years at the same level of risk and after the deduction of mutual fund fees and investment advisory fees.



**Step 12. Invest and Relax: Invest, relax and stay balanced.** The road to recovery for active investors ends with a recognition that a strategy of buying, holding, and rebalancing a portfolio of index funds is the best way for investors to maximize the expected returns of their investments. A financial advisor that speaks riskese and understands how markets work can best design, implement, and maintain a risk-appropriate, tax-managed, and highly efficient portfolio of low-cost index funds for investors. After investors implement this prudent investment plan, they can kick back and relax.



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