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# EVALUATING

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Vinh Q. Tran

Foreword by Thomas Schneeweis

# Evaluating Hedge Fund Performance

VINH Q. TRAN



John Wiley & Sons, Inc.

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# **Foreword**

any misconceptions exist about hedge funds and the hedge fund industry. Few investors know that hedge funds have now existed for almost 60 years. Few investors know that the term *hedge fund* refers more to the legal vehicle (private pool of capital) that houses the underlying strategy than the strategy itself. Most investors view hedge funds primarily as "absolute return" investments in which managers seek to obtain extreme positive returns in all market environments. Often the press has portrayed hedge funds as extremely risky investments.

In Evaluating Hedge Fund Performance, Dr. Tran attempts to remove these misconceptions. Instead, he emphasizes the risk reduction role of hedge funds when combined with traditional stock and bond investments. Dr. Tran points out that for most of the past 15 years, most hedge fund strategies have underperformed the S&P 500. This should come as little surprise to investors. The lower return achieved by most hedge fund strategies is consistent with their lower risk. Most investors fail to realize that return variability of the typical hedge fund is less than that of the typical equity investment.

The role of hedge funds as a risk diversifier is a primary focus of this book. The last free lunch of investment rests not in hedge fund investment per se but in combining hedge funds with other traditional assets. The first chapters remind investors that long-term investment does not necessarily remove investment risk. For long time periods, individual asset classes often provide minimal returns. To the degree that a free lunch still exists in investment, it is the result of combining assets with similar return and similar risk but with low correlation. This results in a portfolio with the same return but with lower variance. Just as important, for two assets with similar return, the one with the lower variance will achieve the higher long-term return.

Hopefully, Dr. Tran's argument for concentrating on lower risk instead of concentrating solely on higher return will capture the reader's interest. In the core chapters, hedge fund returns are not presented as providing a higher-return substitute for traditional assets. In contrast, hedge funds are shown often to underperform traditional assets in many market environments. However, the reader is also introduced to the concept of hedge fund

alpha (to the degree that hedge funds remove their exposure to equity risk, their return may be compared to that of zero-equity-exposure investments). As important, the reduction in market sensitivity also results in hedge funds that have a low correlation with traditional investments and provide true portfolio risk reduction benefits.

Since this book's primary emphasis is on the risk and return behavior of hedge funds, the final chapters emphasize various aspects of hedge fund construction as well as performance analysis and portfolio construction. Dr. Tran reviews some of the basic concepts in performance analysis and portfolio construction and examines the role of hedge funds within an investor's portfolio. While many of the concepts discussed have been reviewed in other books, the overview of fundamental risks (management and market based) of hedge fund investment reminds investors that there is no substitute for understanding both the hedge fund strategy and the manager behind the strategy.

As hedge funds have grown, the number of books attempting to explain the industry and the strategy has also increased. Each book offers a unique view into the hedge fund world. Many of these books review the return potential of hedge funds. Dr. Tran reminds investors that while return is a fundamental part of any investment, return is fundamentally related to risk. Moreover, while investors must understand the fundamental risks of any investment, risk is not rewarded at the asset class level but only at the portfolio level. As a result, assets such as hedge funds that provide diversification are a necessary ingredient to the long-only equity investor.

For investors who are looking for an introductory view of the hedge fund industry, this book provides a refreshing look at the pros and cons of investment in general and of hedge funds in particular. Hedge funds are, of course, an evolving industry. As markets evolve, so does our understanding. While more advanced readers may wish to spend some time in the footnote sections, individuals wishing an honest introduction to the pros and cons of hedge fund investing will find this book worthwhile.

> THOMAS SCHNEEWEIS Michael and Cheryl Philipp Professor of Finance Isenberg School of Management University of Massachusetts

Director, Center for International Securities and Derivatives Research Managed Futures Association

Editor, Journal of Alternative Investments

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And I am blessed with the love and support from my wife, Nhung; our son, Thuy; and daughter, Heather. Their patience and encouragement have urged me on.

VINH Q. TRAN

# Introduction

Ifred Winslow Jones started a hedge fund in 1949, pioneering the con-Acept and strategy of using hedges to protect his portfolios against market declines. Though hugely successful and producing handsome returns for his investors, and imitated by others in the subsequent decades, Jones' idea did not gain much recognition among the investing public in the 1980s and 1990s, who were fixated by the bull market and the popularity of mutual funds. In fact, TASS Research identified only 68 hedge fund managers when it began collecting data on hedge funds in 1984. But all of that changed with the bear market of 2000-2002, which witnessed unrelenting stock market declines for the longest period since the crash of 1929. While mutual fund and other traditional investors were reeling in losses, investors in many hedge funds suffered little and sometimes stacked up double-digit percentage gains. As a result, assets under management by hedge funds soared from about \$200 billion in 2000 to over \$500 billion in 2003, and have reached over \$1 trillion by 2005—still small compared to about \$8 trillion managed by approximately 8,300 U.S.-based mutual funds but nevertheless representing dramatic growth.

But even now, reports about hedge funds remain largely negative. Press headlines such as "Hedge-Fund Follies," "Hedge Funds May Give Colleges Painful Lessons," and "A Health Warning on Hedge Funds" clearly are not intended to soothe.

The reality is that hedge funds are investments with risk and return characteristics different from traditional stock and bond investments. Many hedge funds have failed miserably. Others have survived and prospered, and have provided superior rewards to their investors. Some hedge funds have produced returns that are simply unmatched by mutual funds and other more traditional investments. But the spectacle of the demise of the prominent hedge fund Long-Term Capital Management and similar debacles lingers on to taint the overall image of hedge funds.

Hedge funds are complicated trading strategies with high turnover and often use complex derivatives structured by financial engineers and math wizards. They also employ leverage to enhance returns, which at the same time exposes them to greater risks. As a result of all these complexities, they require laborious research and in-depth understanding. Investing in

XVI INTRODUCTION

hedge funds without commitment of time and resources is like driving blind in a storm.

Like any other business, the hedge fund industry is sometimes infected with charlatans and mediocrity. But it is also an industry populated by many talented and insightful portfolio managers. As Timothy Geithner, president of the Federal Reserve Bank of New York, remarked, "[hedge funds] can play a beneficial role in the U.S. financial system. They contribute to one of the defining strengths of our financial system: the ease with which we match capital to ideas and innovation."

In writing this book on evaluating hedge fund performance, Dr. Tran has addressed a difficult topic. But the result is an important and needed work that should be of great value to both individual and institutional investors to have a good understanding of the potential benefits and pitfalls of hedge funds. In this book, Dr. Tran presents a balanced assessment of hedge funds and an evaluation of the returns and risks to be expected from them. In other words, what can investors really anticipate from hedge funds? What methods are used to evaluate them? What characteristics distinguish good funds from bad funds? How does an investor assemble a hedge fund portfolio to achieve target investment goals? Importantly, Dr. Tran discusses in great detail the need to investigate thoroughly a hedge fund before investing with it and to continue to monitor and evaluate it after the investment is made. He also points out the hidden risks of hedge funds that are not adequately measured by the usual statistics such as standard deviation or volatility of returns.

Dr. Tran draws on his work and extensive interviews with hedge fund managers and funds of hedge funds, as well as their investors, and from his 20 years of experience in managing hedge fund strategies. In the process, he examines hedge funds in the context of the tenets of modern portfolio theory because it is the foundation on which hedge funds have claimed to possess benefits unobtainable from traditional long-only investments. He also reviews a great deal of research by academics and industry practitioners, which provide analyses and insight on the track records and long-term prospects of hedge funds.

The result of all this research is a tightly structured book with excellent documentation along with sound and well-supported conclusions on investing in hedge funds.

DAVID BROWN Chairman and Chief Market Strategist Sabrient Systems, Inc. Santa Barbara, California

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# One

# A Primer on Hedge Funds

Though separated by some 70 years, the crash of 1929 and the bubble burst of 2000 shared some similarities. In the five years between the low in May 1924 and the monthly high in August 1929, the Dow Jones Industrial Average, which represented the stocks of the companies of America's fast-growing industrial economy, had risen by 31.8 percent a year. Half a century later, the NASDAQ was the index that captured the imagination of the investing public with its constituent stocks of the companies in the computer, Internet, and information technology sectors. It, too, had risen by an average of 32.8 percent annually during the nearly six years prior to the burst, from the monthly low in June 1994, which had been brought on by the Federal Reserve's aggressive raising of interest rates, to the high in February 2000. The subsequent decline in the NASDAQ was only marginally less severe, 78 percent as compared to 88 percent in the 1929 crash, and lasted almost as long, 31 months versus 34 months starting in 1929.

No one knows how long it will take the NASDAQ to recover to the preburst level of 5,132, although after a year-end rally in 2004 it has gained some 95 percent from the bottom in 2002. However, we do know that two years after the bottom in July 1932, the Dow Jones Industrial Average had risen by 136 percent, and yet it took more than 25 years for the Dow to recover to the precrash level. Twenty-five years is a long time to wait, even for patient and committed long-term investors.

Long-term investment horizon and diversification to reduce risks are

two key concepts in investing. They will be analyzed in Chapter 1 of the first part of the book, a primer on hedge funds. It will be shown how these sound principles have been misapplied and how hedge fund strategies can be positioned as long-term investments to reduce portfolio risks. In Chapter 2, the discussion is focused on the potential of hedge funds in reducing risks, not in producing outsized returns. Also, the benefits of hedge funds as a diversification investment and as an alternative investment strategy in bearish and volatile market environments will be discussed in detail. Chapter 3 is a review of the hedge fund industry, its investors, the main hedge fund strategies, and how they have performed in past market conditions.

# The Market Goes Up Forever?

# The Paradox of Long-Term Investing

Jeremy J. Siegel, professor of finance at the Wharton School, started his seminal work Stocks for the Long Run by recounting the investment scheme recommended by John J. Raskob, a senior financial executive at General Motors.<sup>1</sup>

## FLAWS OF LONG-TERM INVESTING

According to Professor Siegel, Raskob "maintained that by putting just \$15 a month into good common stocks, investors could expect their wealth to grow steadily to \$80,000 over the next 20 years." Unfortunately for Raskob, Siegel remarked, his timing was a bit off. Raskob made his recommendation two months before the crash in 1929 and was blamed by Senator Arthur Robinson of Indiana "for the stock crash by urging common people to buy stock at the market peak."

### A Get-Rich Scheme

So, did Raskob provide "foolhardy advice [that] epitomizes the mania that periodically overruns Wall Street"? No, according to Siegel. In fact, Siegel postulates, "After 20 years, his or her stock portfolio would have accumulated to almost \$9,000, and after 30 years, over \$60,000. Although not as high as Raskob had projected, \$60,000 still represents a fantastic 13 percent return on invested capital, far exceeding the returns earned by conservative investors who switched their money to Treasury bonds or bills at the market peak."

The logic is unassailable and the math is immaculate.

It has become the accepted wisdom for a generation of investors and

certainly the progenitors of mutual funds and such financial schemes for the masses. This analysis has been used time and time again by the investment industry to urge investors to buy stocks even when the market was overvalued and poised for a decline, or when the market was just simply tumbling down. Many experts say even buying stocks at a market peak will make you rich. While such a statement may sound appealing, the logic of the scheme rests on two key assumptions that may not always be realistic.

# A Discipline Few Can Follow

The first assumption is that one must invest preset amounts of "\$15 a month" every month. The critical consequence of this assumption is that the investors who follow this discipline, which is otherwise known as dollar cost averaging, would buy stocks every month without fail, month after month, regardless of the market condition, even when stocks are falling. Such investors therefore would be buying stocks at lower and lower prices as the market weakens, or higher prices as the market strengthens.

What if an investor does not or can not? A retiree, for instance, might not put aside funds for additional investments after retirement. Other investors, such as endowments and foundations, whose sources of funds available for new investments are unpredictable or simply not available, might not be able to make additional investments in the face of continuing lower stock prices. Perhaps they simply exercise prudence by not committing additional funds amid uncertainty in the market.

Investors who had made a one-time investment of \$15 in August 1929 would have seen their investments decrease in value to less than \$2 in less than three years, assuming that they had invested in the Dow Jones Industrial Average. If these investors managed to hold on to their investments for another 17 years, until 1949, they would have seen their net worth reduced to a mere half of what they had in 1929. Unbelievably, and counter to traditional thinking, they would have suffered a loss of 50 percent for 20 years of long-term investing! Even if any investors had had the wherewithal to double their initial investments just after the crash by putting another \$15 in the market in 1932, which was the year when the Dow hit its lowest point, they would still have had a net loss on their \$30 investment after 20 years.

In contrast, consider Siegel's "conservative investors who switched their money to Treasury bonds or bills." These conservative individuals would have seen their investments more than triple over the course of those same 20 years.

The second critical assumption is that investors do not take any money out. That is, the initial investments and subsequent investment gains, from both dividends and price appreciation, are left invested in the market. The gains from dividends would be reinvested and the entire proceeds from any stocks that were sold with profits or losses would be plowed back into the market. Since investors did not take the money out, they would not sell into lower prices as the market declines.

But what if investors must sell part of their holdings to meet expenses or other obligations while the market goes lower? The reality is that many individuals need income from their investments to live or to maintain their lifestyles. Institutional investors such as endowments, foundations, and pension plans have spending commitments that they must fulfill. They in turn rely on investment returns to meet these financial commitments.

Consider what would have been left over if after the initial investment of \$15 was made in August 1929, the investors had to take out 5 percent of whatever was left at the end of each year to meet daily living expenses or ongoing spending obligations! Well, for the "conservative" investors who had invested in Treasury bonds, the answer would be the initial \$15 capital and more! However, those who had invested in the Dow would have been left with practically nothing.

Of course, the market history of the United States has not always been like that of the 1929 crash, although those who invested in NASDAQ stocks in March 2000 might take exception with this statement. In fact, after the crash of 1929, the U.S. stock market embarked on a 70-year expansion, punctuated by periods of one- or two-year declines or lackluster performance. During this expansion nothing like the 1929 disaster occurred until the bubble of 2000 burst.

In this collapse the Dow did not decline as much as it did in 1929. From the top in January 2000 to the bottom in October 2002, the index lost 38.75 percent. As the rally had been fueled by the Internet craze, resembling the stock market hype that preceded the 1929 crash, it was the NASDAQ that took the brunt of the selling. From the intraday high in March 2000, the NASDAQ index lost nearly 78 percent, while displaying the hysteria not unlike the Dow in 1929. In fact, as the collapse progressed, the NASDAQ posted new lows for several months in a row, without respite in between. Then, one- or two-month consolidations were followed by months-long declines without intermediate stops. Near the end, there was a losing streak that lasted for five months with progressively lower lows.

This time, although there was no soup line like in 1929, the unemployment rate almost doubled to over 6 percent, before posting a moderate decline three years later. Three million jobs were lost and at the same time