Before beginning a formal investigation into pairs trading, putting the strategy into a historical context may be of some interest to the reader. Pairs trading and market-neutral strategies alike are not new. They have been around in one form or another since the beginning of listed markets and have been studied and used by some of history's most notable traders. The hedge fund industry, however, has given a new face to these strategies as well as the specific vehicle needed to demonstrate their successes and failures. Prior to the hedge fund boom, these strategies were found folded into the portfolios of high-net-worth individuals and institutional traders who had the ability and resources needed to make them work. They were rarely differentiated by their specific characteristics, but rather represented collections of trades within a larger framework.

The explosion in the hedge fund industry meant that these strategies now had a place to stand alone. This produced two distinct results. First, as each strategy formed the foundation of a given fund, that strategy could be analyzed without the background noise of other trading techniques. The result of this shift was that fundamental analysts, technicians, and statisticians could each apply their own style of reasoning to determine whether a given strategy was sound and repeatable. In other words, for the first time, the scientific method could be applied to these methodologies and the results standardized in a format that was widely understood. Standardization is often the precursor of proliferation and, as more traders became interested in these new strategies, an increasing number of them began to appear.
The second result of the hedge fund boom was that as more traders began to study these strategies, using more advanced tools and technologies, the strategies themselves began to be improved and refined. Strategies that began as a collection of “back-of-the-envelope” analyses evolved into comprehensive, computer-driven systems capable of accounting for the results of millions of calculations per second. In addition to the funds themselves, various ancillary services became increasingly advanced. Charting, price and fundamental data, and trade execution systems all evolved to meet the changing needs of hedge fund managers. The investment industry was experiencing huge growth and inflows of capital; hedge funds were equal participants.

THE GROWTH OF HEDGE FUND INVESTING

If one disregards the specific strategy employed within the market-neutral and hedge fund universe, it is evident that during the past decade or so assets have flooded into the hedge fund market and created a significant market segment. In 1990, there were approximately 200 hedge funds in existence that managed roughly $20 billion. By 1999, those figures had risen to include almost 3,500 different hedge funds managing in excess of $500 billion. By 2005, the estimate has again risen to include approximately 8,000 different hedge funds managing in excess of $1 trillion. While it does not further our understanding of market-neutral strategies generally, there are some important insights that can be drawn by considering some of the reasons for this explosive proliferation.

The first reason, and probably most significant in terms of the last several years, is that hedge funds provide an alternative source of investment return. The fact that market-neutral strategies in particular have a very low correlation to traditional investment portfolios makes them particularly attractive as a diversification tool. Through diversification, investors are able to improve their overall risk-adjusted return profile.

In addition to the diversification benefit, there have been huge opportunities within the hedge fund market in a variety of ways. Skilled managers have been able to take advantage of the continuing expansion and ongoing developments within the capital market to profit from pricing inefficiencies. Furthermore, with the decreased expense and increased access to information technology, skilled and talented managers are not constrained by infrastructure issues and are able to attract investment capital based purely on their ability. Because hedge fund management offers a better revenue flow for a manager, many of the most talented have left large, conservative firms with less interest in
hedge funds to launch their own successful funds; investment capital has followed them.

The final major reason for the mass expansion of the hedge fund world during the last decade—and continuing even today—is that through the 1990s, in the biggest bull market in history, large amounts of personal wealth were created. Hedge funds have consistently turned in impressive performance results and, coupled with the high levels of investment wealth, have attracted allocation from astute investors.

As the hedge fund universe continues to grow, the range of investors who consider making allocations to them grows as well. Once dominated almost exclusively by high-net-worth investors, institutional investors now have channeled a great deal of capital into hedge funds as well. While the individual is still the predominant hedge fund investor, the amount of capital that this segment of the investment industry commands from elsewhere has grown as the industry continues to gain in popularity and acceptance. While currently peripheral, in the future this growth may affect both the constitution and regulations of the hedge fund industry.

ONE HUNDRED YEARS

As was previously mentioned, pairs trading and other market-neutral strategies have been around since the organization of listed markets. Jesse Livermore, perhaps the most famous trader of all time, is considered to have been the first pairs trader and, in fact, used certain principles of pairs trading in all of his analyses:

_Tandem Trading, the use of sister stocks, was one of the great secrets of Livermore’s trading techniques and remains just as valid today as it did in years gone by. This technique is an essential element in both Top Down Trading and in the maintenance of the trade after it has been completed. Livermore never looked at a single stock in a vacuum—rather, he looked at the two top stocks in an Industry Group and did his analysis on both stocks._

In this explanation of Livermore’s trading style, monitoring “sister stocks,” or two similar stocks in the same industry, was done to help confirm the analysis of either. Because Livermore made the assumption that trends

within an industry would hold for the few largest issues within that indus-
try, if the top stocks did in fact move in tandem, then he was comfortable
declaring that a legitimate trend had been identified. Within this context,
he was using tandem trading for directional trading that tended to be
longer term. Livermore, also know as the “boy plunger,” was famous for
his ability to spot a long-term trend and ride it for significant profits.

Over the course of hundreds or thousands of tandem trades, it is not
difficult to see how Livermore would have developed a feel for the regular
fluctuations that occur between pairs of stocks. While primarily interested
in the study of long-term trends, the inclusion of “sister stock” considera-
tions in his analysis led to Livermore’s reputation as the original pairs
trader. If we accept this as the origin of pairs trading, the strategy on
which the remainder of this book focuses has roughly one hundred years
of history upon which to build. While the tools and technology that sup-
port the strategy have advanced immeasurably in that period, the princi-
ples at the core of the theory have, in fact, changed very little.

THE FUTURE

The future of the hedge fund industry, and market-neutral strategies with
it, is a subject of increasingly heated debate. Hedge funds represent one
of the few remaining unregulated investment vehicles available to the gen-
eral public and, as a result, come under a level of scrutiny by the mass me-
dia that is missing from more traditional asset classes. Because most
managers are not required to register with the Securities and Exchange
Commission (SEC), a fact likely to change in the near future, the press
seems to find particular pleasure in writing about those funds and man-
agers who either behave dishonestly or meet with disaster. Because hedge
funds have historically been limited to wealthy investors and have yet to
make their way fully into the mainstream, another fact likely to change in
the near future, stories of misconduct served as sensational material for
news stories that were easily taken out of context.

The most famous story of hedge fund malfeasance is that of Long
Term Capital Management (LTCM), which nearly brought the entire infra-
structure of the financial world down in the late 1990s. LTCM, which em-
ployed both Wall Street and academia’s elite, muscled its way into hugely
overextended positions and forced its creditors to ignore the most basic
of safeguards. When it became evident that many of their trades could not
be salvaged and that billions of dollars would be needed to cover their
losses, the chairman of the New York Federal Reserve Bank, in consulta-
tion with the heads of the largest investment banks on Wall Street, was
forced to devise a plan to protect some of the oldest financial centers in the United States. While this is a gross oversimplification of a truly fascinating story, it serves as an example of a single story that has set the tone for the way much of the public views hedge funds.

The result of this type of media attention is that a plethora of myths exist about hedge funds: They are unsafe, they take unnecessary risk, and their managers are not trustworthy. In truth, much like other types of investments, hedge funds span the risk spectrum and employ the honest and dishonest alike. Some are quite conservative, following fundamental data on global macroeconomic trends, while others take significant risks, day-trading volatile futures contracts. The only real distinction between a hedge fund and a mutual fund is that a hedge fund has the ability to use leverage and sell short. The term hedge funds comes from the activity of selling short to “hedge” the risks of long-only portfolios; the ironic truth is that hedge funds were originally conceived to be more conservative than mutual funds.

In order to understand the likely future of the hedge fund industry, it will be useful to briefly consider the history of the mutual fund industry. Many individuals, the author included, believe that hedge funds will follow essentially the same path as mutual funds from the unregulated Wild West of the investment community to a staple found in any typical investment portfolio. The first mutual fund was created on March 21, 1924, when three Boston securities executives pooled their money; it was called the Massachusetts Investors Trust. (The first example of a pooled investment fund dates back to 1893 and was created for the faculty and staff of Harvard University.) The Massachusetts Investors Trust was launched with three shareholders and $50,000 in assets and grew to nearly $400,000 and 200 shareholders. Today, there are over 10,000 individual mutual funds with over $7 trillion in assets and approximately 83 million individual investors.

The stock market crash of 1929 slowed the growth of mutual funds and inspired Congress to pass the Securities Act of 1933 and the Securities Exchange Act of 1934. These laws require that a fund be registered with the SEC and provide prospective investors with a prospectus. The SEC helped create the Investment Company Act of 1940 that provides the guidelines that all funds must comply with today. This proliferation of regulation was a direct response to the decreased level of confidence evidenced in the stock market. The government felt that it needed to give investors a renewed sense of security to help encourage stock market participation at a time when confidence was at all-time lows.

With renewed confidence in the stock market, mutual funds began to grow steadily and by the end of the 1960s there were around 270 funds with $48 billion in assets. In 1976, John C. Bogle opened the first retail index fund,
called the First Index Investment Trust. It is now called the Vanguard 500 Index fund and in November 2000 it became the largest mutual fund ever, with $100 billion in assets. The two largest contributors to mutual fund growth were the Employee Retirement Income Security Act (ERISA) of 1974, specifically clause 401(k), and the Individual Retirement Account (IRA) provisions made in 1981, allowing individuals (including those already in corporate pension plans) to contribute $2,000 a year. Each of these factors pushed individuals who previously considered their pensions to be their primary source of retirement income to turn to the stock market; many, if not most, of these individuals invested in mutual funds as a source of professional, yet accessible, money management. As this trend continued and mutual fund assets ballooned, technology was forced to keep pace. Today, these investors can change their investment allocation daily through online account management, can track their exact positions, and can even trade their own accounts through online brokerage services. Stock market participation is at an all-time high, and many investors are beginning to look for alternative approaches and vehicles by which to get ahead in sometimes confusing market conditions. Enter the hedge fund.

The stage has been set for the proliferation of hedge funds to follow a similar path to that just described for mutual funds. Accounting scandals, the Enron debacle, and the crusades of Eliot Spitzer coupled with the recent burst of the market bubble have all shaken investor confidence in the stock market. If history repeats, the government will step in, increase regulations, and seek to restore some of the lost confidence by establishing more rule of law. This process has already begun and will likely play out over the next few years until hedge funds become a part of the regulated mainstream.

The process is likely to be gradual, and one of the issues currently being debated is whether all hedge funds will be regulated under the same set of guidelines. The SEC voted in 2004 to require hedge funds to register by February 2006, concerned it needed to keep tabs on the freewheeling capital pools that once marketed exclusively to the rich but increasingly target less affluent investors. The Commodity Futures Trading Commission (CFTC) is currently attempting to come to an agreement with the SEC regarding registering hedge funds that invest in commodities. The CFTC does not want some of its hedge fund registrants to have to register with the SEC. Commodity pools collect investor contributions to trade in futures contracts and commodity options as well as other financial instruments. According to the CFTC, there are about 3,500 commodity pools with assets of more than $600 billion.

The debate is on, but both sides remain optimistic that a resolution will be reached. The SEC could potentially mandate that hedge funds dealing in commodities have to register with them, but spokespeople for
the CFTC argue that the stringent guidelines set by the SEC are geared toward mutual funds and don’t necessarily make sense for hedge funds. As of this writing, the SEC and the CFTC have not come to an agreement, but an announcement was due to be made in 2005.

This is but one of the issues currently being addressed by various regulatory bodies with regard to the hedge fund industry. Despite the lack of resolution, this debate represents a clear sign that the industry is changing and moving to a more conventional structure. The likely result of this paradigm shift is that within the next several years, hedge fund investing will not be limited to sophisticated, high-net-worth individuals who are thought to be more able to absorb the inherent risks of such an investment. Pension and 401(k) plans will likely begin to carry certain hedge fund election options and the Wild West will again be tamed.

One final piece of evidence that a change has already begun to occur is the introduction of fund-of-fund mutual funds that invest exclusively in hedge funds. These funds circumvent the typical long-only provisions of a mutual fund by owning long positions in hedge fund shares. They diversify risk by investing in a number of different funds and give less affluent investors the ability to participate in the returns of multiple hedge funds with a far lower threshold for participation. There are slightly more stringent requirements for the hedge fund managers that participate in such funds—they must be Registered Investment Advisors (RIA) and are required to report a net asset value (NAV) of their shares on a daily basis—but generally they provide a conduit to the hedge fund universe that was previously unavailable to an average investor.

The rapid acceptance and growth of such funds provides quantifiable proof that there is an increasing level of interest among the general public to participate in hedge funds. While there is significant and reasonable resistance by hedge fund managers, many of whom left more traditional investment firms to avoid the irritation and expense created by comprehensive regulation, industry-wide changes are inevitable. The transition will be slow and painful for many but should ultimately leave the industry in a better position to face the challenges of the future.