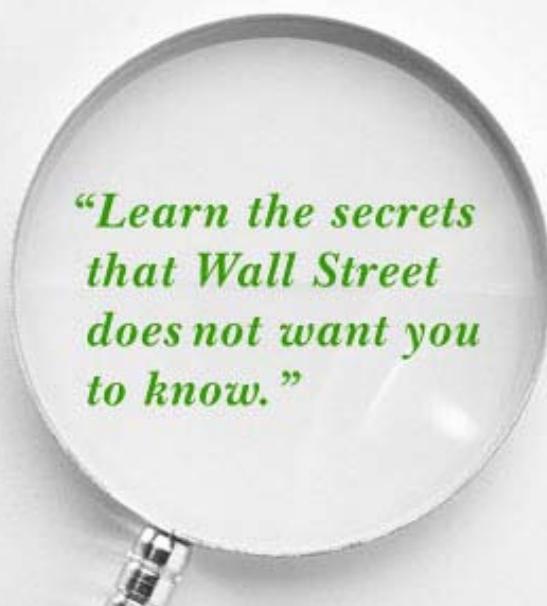


# Trading Futures



*“Learn the secrets  
that Wall Street  
does not want you  
to know.”*

Only One  
Way to Win—  
*and you  
can do it!*

Thomas Kinsey Schneider, Ph.D.

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## A Word From the Author

Congratulations. You now have in your possession a trading system that could potentially make you millions of dollars. For less than \$200 I have offered you, as best I know how, a roadmap to great wealth and financial freedom. I hope you take full advantage of this incredible opportunity. *The next step is fully up to you.*

When I decided to share my proprietary trading system with the public, I was determined to make STARS available to the largest possible audience through an inexpensive book rather than through \$10,000 per week seminars. One consequence is that I choose not to answer individual questions, or to provide individual counseling with each book purchase. I rely on the material to speak for itself to the extent that is possible. There is no additional support built into the price of the book. Certainly, there can always be improvements and clarifications, and the material will not be equally clear to all readers of different levels of experience. I understand that this approach will not satisfy everyone, and that is why I offer the guarantee as explained on the website. If you paper trade (or actually trade) for 90 days starting from the date you purchased the book, at the end of that 90 day period, if you don't believe the system is fundamentally sound, you request a refund, which I promptly provide. But be clear about my guarantee: you do have to let the system reveal itself over that 90 day period before being eligible for the refund. There are two good reasons for this: first, since this is an ebook, I have to protect myself from a casual buyer that downloads the book, keeps and uses it but demands an immediate refund; but equally important, it protects my buyers; some readers initially intimidated by or skeptical of the system have found after paper trading for 90 days that their initial impressions were wrong and the system in fact suits their needs. For some, the system appears at first to be more complicated than it really is, and the 90 days allows enough time for the system to sink in. I have hundreds of satisfied customers for whom this approach works well, and it has allowed me to disseminate the system to a much wider audience than would otherwise be possible.

As I say on the website and in the book, this is not a get-rich-quick scheme; it is a path to lasting wealth. Although the system is extremely easy to trade once you are up and running, it may take some work to learn at first, and may take several passes through the book before things become clear. That is normal when learning something new. Some of the concepts take some time to absorb. Play with the system as best you can. Be patient. Take time to read the book carefully. Paper trade. Getting rich always takes a little work, and this is not much work for the possibility of making millions! But you do have to exert enough effort to understand some of the new concepts introduced in the book. Read the book, and re-read it if you must. This is the most valuable advice I can offer you. The path to great wealth lies before you. Good luck!

## Chapter 1

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### The Mystery of Futures Explained

Books about trading futures typically ply readers with detailed historic descriptions of the market and how futures work today. None of that, however, will make you rich. Being an expert on futures is not necessary, and not even particularly helpful, in successfully using the STARS method of trading.

A brief description of how futures developed is all that is needed to place STARS in the context of traditional trading methods, and just as important, to demonstrate what STARS is *not*. Placing STARS in context exposes the bad and false assumptions embedded in traditional trading systems, and clarifies what you need to avoid when trading futures. With just a little background, and with an understanding of a few core fundamentals, you will know why STARS is a completely different approach to trading to great wealth.

### **The Tale of Trader Bob**

Trader Bob (a buyer) wants to purchase a widget today because he believes that the widget will have more value in the future. If all goes well, Bob will buy the widget now, wait for the price to go up, then sell the widget for a small profit in a month. But where can Trader Bob obtain the widget? It so happens that Trader Sam (a seller) has in his possession the widget that Trader Bob wants. Trader Sam would like to sell the widget today because, unlike Trader Bob, he believes that the widget will have less value in the future than it does today. Trader Sam is selling today because he believes that he will make more money now than if he waits to sell in a month.

So Trader Bob and Trader Sam get together and agree upon a price for the widget. Trader Bob is now the proud owner. If the value of the widget indeed increases in the future, then Trader Bob can become a seller and part with the widget with a profit. If the value of the item decreases in the future then Trader Bob will have to sell the widget for a loss.

This basic relationship between buyer and seller is the foundation for all commerce. Futures are simply a variation on this theme, where instead of buying a widget now, Trader Bob contracts to buy the widget in a few months at a fixed price. The transaction still relies on the buyer believing the price will go up, and the seller believing the price will go down. Before that is explained further, however, some more background is needed.

### **In the Beginning**

The roots of modern day futures exchanges date back to the central marketplaces of the ancient Greek and Roman civilizations, where standardized practices of trading goods began. Methods were developed that incorporated fixed times and places for trading as well as methods to store and deliver goods in the future. After the decline of the Greek and Roman civilizations, centralized trading re-emerged during the medieval times of the twelfth century.

Advances were made in the practices of self-regulation and arbitration in Medieval England, and a code known as the Law Merchant established standards of conduct acceptable to local authorities. Those that violated the standards were banned from trading and were often punished, sometimes even tortured. After Enron and endless scandals involving major brokerage houses on Wall Street, maybe the ancients had the right idea.

By the fourteenth century, the English Merchant Association was born and was recognized under common law as the arbitrator of trade disputes among members. The principles of self-regulation found in English Common Law then followed settlers to the American colonies. That explains how, as early as 1752, commodity markets existed in the United States to accommodate the trade of items as diverse as textiles, metals and lumber. And so there we have 3000 years of history compressed into 3 paragraphs. No more is needed to bring us to recent times.

### **Birthplace of Modern Futures**

The history of futures trading begins in Chicago. The windy city's strategic location on Lake Michigan, easy access to the other Great Lakes and proximity to the fertile fields of the Midwest, helped contribute to its rapid rise as the nation's Grain Terminal. But not all was rosy.

An unorganized market for the abundant crops pouring in from the heartland created problems with mixing and matching supply, demand, transportation and storage. The simple model of buyer and seller getting together was not working. Often a farmer would spend as much to transport a wagon of wheat to Chicago as he did to produce the crop. Once the commodities reached the city, the farmer further encountered difficulty with distribution to outlying markets. A more organized approach to selling the crops was desperately needed.

These conditions prompted farmers and merchants to contract for *forward delivery* as a mechanism to offset the uncertainty of the future by establishing a price for future goods. The first recorded forward contract traded in Chicago was made on March 13, 1851. The delivery of 3,000 bushels of corn was to be delivered to Chicago in June at a price of one cent below the price on March 13<sup>th</sup>. Shortly thereafter, forward contracting began in wheat. These types of transactions eventually gave rise to the Chicago Board of Trade (CBOT), which was formed to establish a centralized meeting place for buyers and sellers of commodities. During the early days of the Board, forward contracts were the primary means of trading.

### **Early Futures Contracts**

At first, forward contracts were not standardized according to quality and time of delivery. Another problem was that people are people, and therefore merchants and traders often did not meet their obligations. To circumvent these problems, a *margining system* was developed to help eliminate the problem of buyers and sellers not fulfilling their contracts. A margining system simply requires both the buyer and seller of the contract to deposit funds with the exchange to guarantee performance.

In 1865 the CBOT took the next step toward modern futures trading by creating a standardized agreement known as a *futures contract*. A futures contract is a legally binding agreement between two parties to buy or sell in the future a specific item (commodity) at a specific price. The buyer and the seller agree on a price for an item to be delivered at a specific time in the

future. In futures trading today, the item traded is rarely delivered. Instead, the futures contract is closed out prior to the delivery date, either for a profit or a loss.

Futures contracts differ from forward contracts in several critical ways. First, futures contracts are traded on exchanges, while forward contracts are two-party agreements between a buyer and a seller. With futures contracts, buyers and sellers never meet, and have no knowledge of each other. Second, futures contracts rely on pre-established standards that ensure that the product being delivered will be of uniform quality. Third, a futures contract establishes a specific unit (quantity) to be traded, while the size of a forward contract is set by the buyer and the seller. Fourth, times for delivery are standardized with the futures contract. Trading months were agreed upon by grain merchants and farmers based on harvesting and transportation conditions.

As futures contracts became standardized, contracts were no longer between individuals, but part of the exchange. This had an important impact: each contract on the same commodity, and with the same delivery month, was now interchangeable. A trader could establish a futures position, and exit that position, without ever accepting delivery. In such a market, the only variable between entry and exit is price.

Standardization, a margining system and modern futures contracts all combined to allow speculators to enter into the grain trade. Speculators in turn allowed the market to become more efficient because individuals not associated with the grain trade could enter into futures trading with the hopes of securing a profit by correctly predicting prices in the future. Because speculators buy

or sell contracts that may not have otherwise been traded, speculators make the market larger and more liquid and help to minimize price fluctuations.

### A Vast Market

As a direct result of standardization, futures trading exploded on the scene, and by the late nineteenth and early twentieth centuries, new exchanges were formed to trade diverse commodities such as coffee, cattle, pork bellies, orange juice, and crude oil. Eventually the futures industry expanded to include foreign currencies and contracts on government debt traded through notes and bonds. The dollar volume traded in the futures markets now exceeds that of all of the world's stock markets.

### Exchanges and Clearinghouses

Futures markets today are continuous auctions that take place exclusively in organized exchanges such as CBOT. Commodity exchanges exist today to facilitate and regulate futures trading. The exchanges serve as virtual meeting places where buyers and sellers of a particular commodity come together to trade futures contracts of pre-determined quantity, quality, and delivery dates. The only variable is price, which is established (discovered) through the auction-like process on the trading floor of the futures exchange.

Different exchanges tend to specialize in specific commodities. For example, the Chicago Mercantile Exchange (CME) trades, among other commodities, beef, hogs, dairy, lumber, and foreign currencies, while the CBOT specializes in crops (like wheat and soybean), metals and interest rate contracts on Treasury bonds and notes. Both exchanges trade indices, but not the same ones, while some interest rate contracts (generally on foreign currencies) are traded on both. One way or another, *all* futures contracts are traded at a futures exchange.

A futures contract can trade hands thousands of times before the delivery date, and there is no way for Trader Bob to keep track of who is on the other side of the transaction. One of the most important functions of a futures exchange is to provide this clearinghouse operation. As a clearinghouse, the exchange acts as a third party to every futures transaction and is the guarantor of every trade. The clearinghouse insures that the markets function with integrity.

The clearinghouse is the agency of the futures exchange that is responsible for clearing trades and for the day-to-day recording of all trades at the exchange. At the end of each session, the clearinghouse must reconcile the contracts bought and sold, and settle each trader's account to the market.

Exchange clearinghouses can guarantee every trade because the buyers and sellers are required to have funds in their accounts called *margins*, a direct descendent of the early margining systems developed with the old forward contract markets. Margins are essentially performance bonds that guarantee that the buyer and seller have sufficient funds in their accounts to execute the

transaction. Margin amounts vary among different commodities, but are standardized by the individual exchanges. Margins are important, because they can largely determine the capital requirements to trade, and therefore directly affect rate of return.

### **Hedgers, Speculators and Other Critters**

Futures traders fall into two categories: hedgers and speculators. The primary economic purpose of the futures market is for *hedging*, which is buying or selling futures contracts to offsets risks of changing prices in the cash markets. Hedge traders, such as large commercial firms that may actually take delivery of certain commodities, like coffee or wheat, use futures contracts to protect (hedge) themselves against changing cash prices.

Speculators, however, make up the majority of futures traders. Speculators have no commercial interest in the underlying commodity and have no interest in taking delivery of the commodity. The potential for profit is what motivates speculators to trade commodity futures. Speculators buy when they believe that prices will increase and they sell when they believe that prices will fall. Futures traders using STARS would be considered speculators.

### **Futures 101: The Long and Short Of It**

If a trader is a buyer, he has taken a *long position*. A long position involves the purchase of a futures contracts in the hope that the price of the contract will increase in the future. Let's say our friend

Trader Bob contracts in March to buy a widget (a long position) in June for \$10. June rolls around, and the price of a widget is now \$13. That means Bob now has the right to buy the widget for \$10 even though the going rate is \$13. Bob goes ahead and buys the widget for \$10, then turns around and immediately sells it for \$13, pocketing the difference.

A trader who is a seller takes a *short position*, which involves the sale of futures contracts in anticipation of prices falling in the future. Trader Bob in this case contracts in June to sell a widget in September for \$13. Fall comes around, and the going rate for widget in September turns out to be \$9. Trader Bob buys a widget for that going rate of \$9, then immediately turns around and exercises his right sell the widget for \$13, profiting from the difference. At first, it might seem odd that Trader Bob is contracting to sell something he does not yet own. But look at the situation this way instead: in June, Bob makes a commitment to sell a widget to Sam in September for a guaranteed price of \$13. If Bob can buy the widget for less than that sometime before September, he will make a profit.

Read the previous two paragraphs carefully, and make sure you fully understand them. Trader Bob's transactions here describe the fundamental basis for all futures transactions. You must understand the significance of *going long* and *going short* to trade futures successfully.

As Trader Bob's activities show, profits or losses from futures positions are determined when the positions are *offset* (closed out). To close out a long position, Trader Bob goes short (sells) the identical futures contract. To offset a short position, Trader Bob goes long (buys) the identical futures contract.

The mechanics of trading will become clearer as we walk through STARS in more detail, and provide examples of actual trades in chapter six.

## Chapter 2

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### The Mental Game of Trading

A truism widely accepted in the world of trading is that futures are among the riskiest of all investments. Sometimes even truisms are true, however, and in this case the sad statistic is that over 80 percent of individuals who trade futures lose money. Some sources in fact claim that *95 percent* of traders will be net losers. Why then do so many traders continue to tilt at windmills with these dismal and depressing numbers in a venture so fraught with risk? The simple answer is that the allure of trading remains strong even in the face of great risk because the siren song of astronomical

returns is irresistible. The pool of investors looking for vast riches is itself vast, and probably limitless. Certain elements of our human nature, including impatience and greed, drive many of us to chase a mythical pot of gold, in sight but ever out of reach, like a glass of water just beyond the stretched out hand of a man dying of thirst in a barren desert. The bottom line is that, in spite of ample contrary evidence, trading futures is viewed by many as an *easy* means of achieving quick riches. This view is sadly mistaken.

The lure of futures trading is closely related to the effects of leverage. Small margins allow a novice trader to control highly valued futures contracts with only a minor investment. A trader can routinely control futures contracts with a value of \$100,000 with an investment as little as \$3,000. As a result of this considerable leverage, few other areas of investing can match the yields of successful futures trading. Only a small movement of the market on a percentage basis can result in incredible profits. But the old proverb about there being no free lunch rears its ugly head here. The same small movement in the wrong direction can result in devastating losses. Traders who fail to anticipate, prepare for, and minimize these losses will not be long in the game.

All is not gloom and doom, however. Forget the other 80% who walk away losers. If you properly manage risk, use a sophisticated trading systems such as STARS, and bring to the table the right suite of personality traits necessary to play this rough and tumble game, you too can become a member of the elite group of traders who profit from futures.

## Who's Got Game?

Failure in futures is so common because most individuals who enter the trading arena do so highly unprepared for the task at hand. Four key areas separate the weak from the strong, and you should carefully evaluate each of these distinct ingredients for success to make sure futures are for you.

To become a member of the successful elite, an individual must:

- Possess 7 key personality traits
- Be informed about the realities of futures markets
- Follow a well thought out trading plan
- Trade only pure risk capital.

## Personality Traits

In *All About Futures*, Russell Wasendorf describes key ingredients to a successful trading personality. Instead of re-inventing the wheel, these are described below, with significant twists, embellishments and modifications of our own.

### *Self-awareness*

Honest self-evaluation seems to be a consistent characteristic of successful people. With this insight of self comes an innate understanding of one's mission in life, one's strengths and one's weaknesses. In part, success derives from a person's ability to identify goals and to take control of his destiny to ensure that goals are indeed achieved. Successful people are not victims of circumstance, but instead create the circumstances for success. Only you can know if you are ready to take on the challenge of trading futures by creating opportunities for success.

### *Resilience*

A good test of one's emotional and financial readiness to trade futures was suggested by Jay Kaeppler in the August 1995 issue of *Technical Analysis of Stocks and Commodities*, in which he describes the following scenario. Go to a bank on a windy day, withdraw \$10,000 in cash, go outside and with both hands start throwing the money up in the air. After all of the money has blown away, go home, sit down, look in the mirror and say, "gosh that was foolish, I wish I hadn't done that." Then get on with your life without any regret.

If you can pass this test, then you are prepared both financially and emotionally to trade successfully. If not, now is the time to evaluate your readiness to trade futures. Understand clearly that if you trade, you have only yourself to blame for failure. The market, bad luck, the government, and the economy are not viable scapegoats. Accepting that level of personal responsibility requires

a high degree of emotional maturity, and the ability to bounce back when the world does not go your way.

### *Discipline*

Discipline is perhaps the most valuable asset for trading. A disciplined trader with sufficient capital and a well-conceived trading plan has a good chance of succeeding. But discipline is surprisingly difficult to maintain in the heat of battle: the desire to second guess your system is powerful in the face of mounting losses. Virtually everybody is vulnerable to the seductive attraction of trading by “feel” when you simply “know” the market’s next move. Lack of discipline is the number one reason that traders fall out, and virtually every trader has battle scars resulting from moments of weakness. Discipline must be exercised in following a trading plan, and in making all trades responsibly.

### *Persistence*

Any significant goal in life worthy of pursuit requires persistence. If the goal is too easy to achieve, the objective is probably uninteresting. Being persistent means that you have the dedication and drive to work toward your goal day after day, even in the face of seemingly insurmountable obstacles. In the pursuit of a successful career in futures, those obstacles include self-doubt, mounting losses and frustration and anger that the market will just not move in your direction. Only a trader persistent enough to weather adverse conditions will survive.

*Patience*

Related to the need for persistence is the ability to be patient. Success in trading futures will not come overnight. A large dose of patience is needed to solidify a trading strategy that fits your personality. Patience is an effective brake on greed, and will help prevent you from making precipitous moves leading to catastrophic losses. Trading futures must be understood as a methodical and deliberate means of generating wealth, not as a “get rich quick” scheme.

*Independence*

In the isolated world of futures trading, you will not be distracted by office meetings or group strategy sessions. Nor will you be hassled by an incompetent boss. Each futures trader must be comfortable with this level of independence, and must have the ability to stay focused on what is important in the absence of any external guidance. A successful trader has the ability to solve problems by himself through research, guile and hard work. A trader must have the ability to look inward for answers: there is no place else to go. You are on your own.

*Emotional Stability*

A successful trader will have the strength to stay the course when Doubt digs in his tenacious and bloody claws. You need strength to keep trading through rough periods when the world seems intent

on working precisely to make you fail. Emotional highs and lows have no place in the long-term success of a futures trader. *The best futures traders are totally unemotional about trading*, not caring a whit if any individual trade is a winner or a loser. A mature trader knows that over the long haul, his trading plan will be successful: any emotional energy spent on daily ups and downs is completely wasted. To quote Luke Whitton from the Australian Financial Services Directory, “Good trading is boring”. If your trading is not boring, you are doing something wrong, and approaching trading from the wrong perspective.

## Practical Knowledge

As previously emphasized in chapter one, an individual need not be an expert on the intricate workings of futures contracts and futures exchanges to be a successful trader. Just as a pilot can safely fly an airplane without any knowledge of how Bernoulli’s principle explains why wings develop lift, a trader can place orders without any understanding of how those orders are executed.

But ignorance in this case is not entirely bliss. A successful trader will be informed and well versed in the dynamics of whatever market is being traded, and will have in place all of the practical elements necessary to capture profits and minimize losses. You should know what units are used to trade your market, how much each tick of movement changes your net position, and how two

contracts in a spread tend to react to a given change in the market. Carefully watch a market move over time to get a general sense of that market's broad characteristics.

The more you understand your markets, the better position you will be in to make informed decisions about your trading. You can drive a car without understanding engines, but when you break down, that knowledge would sure be nice to have. How much a futures "mechanic" you want to become is entirely up to you.

### **A Trading Plan**

People never plan to fail, they just fail to plan. Every successful futures investor trades with, and stick to, a plan, and never gives in to hope, greed, or fear. Smart traders know how much to risk and when to take profits. Without a trading plan, you will eventually succumb to the emotional pressures of trading, with predictable and catastrophic results. A trader not disciplined enough to follow a plan, or an unorganized trader without one, will inevitably make a move at precisely the wrong time, and the resulting losses will be devastating.

To develop a successful trading plan, you must:

- Choose the right markets to trade
- Establish strict criteria for entering and exiting trades
- Develop systems to accurately track trades
- Set aside sufficient risk capital to trade without fear

Even with a good plan in place, novice traders often can not resist the temptation to rely on “gut” feelings to make trading decisions. On some occasions the results may be profitable, but nothing will more certainly lead to ultimate failure. Traders with any longevity in the industry will attest to the fact that “gut trading” is a passport to doom. Stick with the plan.

Novice traders often stray from a good plan with a gut trade because of a sense that luck might somehow come to the rescue in a deteriorating situation. So what is the role of luck in trading, and how does luck impact the implementation of a well-conceived plan? The answer is simple and absolute. Luck plays no role. *None*. If a system or plan relies to *any* extent on luck, the plan will fail. If you feel unlucky when trading, then you are doing something dreadfully wrong. Any successful trading plan will completely and absolutely eliminate luck as a factor. This point can not be overemphasized.

## Pure Risk Capital

Pure risk capital is money that could be lost completely without adversely impacting a trader's lifestyle. A futures trader should *never, under any circumstances*, trade with capital that is necessary to pay for essential expenses such as food, shelter, health care, clothing or education.

Trading futures responsibly relies on the same management tools used to run a successful business. Every prosperous business needs sufficient working capital to weather adverse conditions and to fuel growth. Successful trading is no different. You must have sufficient risk capital available so that trading decisions are not impacted by the fear of losing money.

The amount of risk capital that a trader needs is strictly dependent on that trader's personal financial situation. As a rule of thumb a trader should not commit more than 10% of his net capital to speculative investments such as futures trading.

Novice traders commonly fail to understand fully their own tolerance for risk. As a result, the emotional pressure of seeing large chunks of money vanish into thin air quickly becomes too great to bear, and the trader quits the game. All too often a trader will be forced to stop trading after a series of losses only to realize that the next trade would have been the winner. That is no way to play this game. Trading with sufficient capital will minimize this risk, and provide the wherewithal to trade through losing periods.

## Getting Your Toes Wet

Before entering the world of trading futures, think long and hard about your own personality.

Evaluate honestly if you have the traits necessary to withstand the vagaries of this ruthless market.

Know that events will appear to conspire against you in a way that seems oddly, almost surrealistically, precise. If you decide to jump in, trade only what you are willing to lose.

If this brutal assessment of the dangers associated with futures has not scared you off, read on as we dip our toes in the practical waters of trading futures in the next chapter.

## Chapter 3

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### A Day in the Life of Trader Bob

Futures traders have developed a unique language that sounds suspiciously like a secret code designed to exclude non-members. All that is missing is a secret handshake. Traders who want to join the club have to master this new lingo to communicate effectively with brokers and to trade war stories with other players in the field.

To help us become fluent in strange world of futures-speak, we join Trader Bob in his kitchen this morning as he prepares for another day of trading and code-breaking. As we shadow him throughout the day, we will listen carefully for any new terms that need explaining.

**THIS CHAPTER IS ILLUSTRATIVE ONLY. STARS IS NOT A DAY-TRADING SYSTEM.** Bob makes all his trades in this pretend day only for the purposes of introducing trading terminology; in reality Bob might make only 4 to 5 trades *per year*, and with that he could see returns of greater than 100%. (Remember though that your results may vary, and that the past never predicts the future). Do not be confused by this illustration – even though Bob is making all these trades in one day, in reality he trades much less frequently.

You do *NOT* have to watch the market during the day; and if necessary you could place orders after hours. **We can not emphasize strongly enough that this is not a day-trading system.**

Bob has seen great success with the STARS method, and is now living the high life. He resides comfortably with his wife, 2.5 kids, Golden Retriever and rare Siamese cat in an exclusive high-priced neighborhood, with crisp green lawns, tile roofs, and exotic foreign cars in over-sized garages.

The kids are off to school, each wearing a cute backpack and designer uniform (the  $\frac{1}{2}$  kid is still too young for school, but Mozart is playing in the background, just in case). Following a relaxing breakfast with the morning paper and fresh toasted bagels, specialty jam from Williams-

Sonoma, and some good hot java imported from Italy, Bob takes his familiar position at the computer. His desk is made from a rare wood found only in Zaire.

The first thing that Bob wants to know is the current *market price* of the *futures contracts* that he is trading. He double clicks on the icon for his *real-time data* software to check on current market prices.

**Market price:** the common level at which someone is willing to sell a commodity and the level at which someone is willing to buy that same commodity.

**Futures contract:** a legally binding agreement made on the trading floor of a futures exchange to buy or sell a commodity at some time in the future.

**Real-time data:** accurate and immediate current market price information.

Bob records the current market prices ticking across his real time data software and enters that information into his *tracking spreadsheet*. The spreadsheet will use these data to calculate Bob's current *net position* in the market. If Bob's position indicates that he is far from making an *offsetting move*, he can putter around the house or go play golf, then check on market prices in a few hours. If however, Bob's spreadsheet indicates that an offsetting move is imminent, he will double click the icon for his *futures broker* and get ready to trade.

**Tracking spreadsheet:** a software program used by a trader to keep an accurate accounting of his current market position.

**Net Position:** the total dollar value of all the active futures contracts that a trader currently holds.

**Offsetting Move:** a trade that is made to exit an existing trade.

**Futures broker:** an entity that is responsible for actually making a trade on the floor of a futures exchange on behalf of a trader.

Bob is a disciplined trader, and he follows his plan carefully. The spreadsheet shows that Bob's net position is now profitable, and that he needs to take a win. He is currently holding 3 *long* contracts in one market and 2 *short* contracts in another. Bob is trading these contracts simultaneously to create a *spread*. To exit his current position, Bob must use offsetting contracts to cancel out the contracts he currently holds.

**Long position:** a trade that is made by buying a futures contract with the belief that the value of that futures contract will increase in the future.

**Short position:** a trade that is made by selling a futures contract with the belief that the value of that futures contract will decrease in the future

**Spread:** a type of trade that consists of holding a long position of one type of futures contract while simultaneously holding a short position of a related (but different) futures contract. In the case of a spread, the price difference between the two markets rather than absolute market movement will result in a profit or loss.

**Arbitrage:** the simultaneous purchase and sale of similar commodities in different markets to take advantage of a small price discrepancy; this in many ways is similar to a spread because the trader goes long in one market, and short (in that same market) on another exchange. The difference is that the “spread” in arbitrage consists of the same contract across two exchanges rather than two different contracts traded in the same exchange that make up a traditional spread.

Bob uses his *electronic on-line trading* platform to execute the trades. He places his *orders* using the screen incorporated into his broker’s trading software. Bob must be extremely careful to enter the order information correctly. The *front month* has another 30 days left of trading, so Bob at this point does not need to be concerned about the *first notice day*. Bob must be sure to place a long order to offset a short position, and vice versa. If not, Bob will obtain another spread instead of offsetting his position to exit with a win. Once the order is transmitted to the *trading floor*, Bob is fully committed.

**Electronic on-line trading:** using internet-based methodologies to trade futures.

**Trading floor:** the location inside the futures exchange where all orders are actually executed.

**Order:** the formal instruction that a trader gives to the broker to execute a certain type of trade.

Each order is highly specific, and every order must include::

- Contract type (for example, a 5-year Treasury Note)
- Contract symbol (ZN for the 5-year Treasury Note)
- Contract delivery month (for example, Z3 for December 2003).

Every contract has a delivery month, and the month is designated by a letter code. The four main trading months are March (H), June (M), September (U), and December (Z)

- Quantity of contracts to be traded
- Direction of the trade (long or short)
- Type of order

The orders used most frequently are:

- **market orders:** this initiates a futures transaction at the current market price; the fill is at whatever price the market happens to be at the moment of the order;  
STARS traders only use market orders.
- **limit (or price) orders:** this initiates a futures transaction at a specific price, or better.

- **stop orders:** this initiates or offsets a futures contract when market prices reach a specific level; the downside is being “stopped out” automatically, and traders can “play your stop”, which can pull the market toward your exit threshold.
  
- **market on close:** a buy or sell order that is to be executed as a market order as close as possible to the end of the day; in general this is a bad order, opening an investor to significant *slippage* (see below).

**Front month or spot month:** when placing an order, a trader should always be in the front month, which is the futures contract month closest to the expiration date and the month with the highest volume of transactions.

Bob looks carefully at his trading software and confirms that his position consists of:

3 Long ZF Z3 (5-year Treasury note, December 2003)  
2 Short ZN Z3 (10-year Treasure note, December 2003)

In order to exit his current position, and close out his spread, Bob must initiate a futures transaction in the opposite direction for each contract that he holds. He must offset his current position. To accomplish this task, Bob enters the following market orders into his on-line trading screen:

SELL (go short) 3 ZF Z3  
BUY (go long) 2 ZN Z3

After Bob carefully reviews his order, he hits the submit button on the screen and waits for his electronic *fill*, usually confirmed in a few seconds. As always, the fills will be worse than when Bob submitted his order, but he is used to *slippage* by now. He will enter the values of his fill into his tracking spreadsheet, which will automatically deduct the *commission* in order to determine his profit from the trade.

**First notice day:** the first day on which a notice is given that a commodity is approaching its expiration date; this alerts traders that the front month will change soon.

**Fill:** the actual result of a futures transaction; the price a trader is given for buying or selling a contract.

**Slippage:** the difference between an actual fill on an order, and the price of the contract when the order was submitted. When trading bonds and notes, you can expect on average a half-point of slippage on every contract. Slippage is typically negative, but on rare occasion can work in the trader's favor.

**Commission:** the dollar amount that the futures broker charges to place a futures order with the futures exchange. Commissions are typically quoted in one of two ways: per side or round turn. A round turn commission includes the charge for both entering and exiting a trade, while a per side commission is the charge for only one end of the transaction. Commission amounts vary widely among brokerage firms, and can be negotiated based on trading volume and account balance.

With that transaction complete, Bob now prepares his screen with new orders so that he can re-enter the market. Before placing his new trade, however, Bob reviews his trading account balance to ensure that amount accurately reflects his most recent transaction, and to make sure that he has sufficient *margin* to make the next trade.

**Margin:** funds that individual traders are required to deposit in their trading accounts to ensure that contract obligations can be fulfilled. The amount of margin varies by futures contract. The amount is determined by the futures exchange in which the contracts are traded. As a general rule, more volatile futures require higher margins. Spreads recognized by exchanges have much lower margins, because spreads inherently have less risk compared to naked contracts (those traded singly outside of a spread).

Shortly after executing the order for a new spread, Bob receives an unwelcome call from his broker Jim. Much to Bob's surprise, the broker is contacting him with a *margin call*. Jim tells Bob that he has insufficient funds in his account to cover the *maintenance margin* required for the spread he currently holds. Bob will have to wire money into his account immediately, or Jim will be forced to close out Bob's position, which is currently negative, for a loss.

After a brief moment of concern, Bob realizes the brokerage house has made a mistake. Instead of crediting his account with the win after exiting the last spread, his account was inadvertently debited. Jim makes the necessary correction while Bob waits on the phone, and the crisis has passed.

**Margin call:** a broker's demand that an investor deposit more money to bring a margin account up to the minimum level required for maintenance of that account; a margin call forces an investor to liquidate his position or add more cash to the account.

**Minimum Margin:** the initial amount required to be deposited in an account to initiate a trade of a contract or a spread.

**Maintenance Margin:** the amount of money that must be maintained in an account once the initial trade has been made; confusingly, this is usually an amount less than the minimum margin.

With that scare behind him, Bob's trading day is coming to an end. As a resident of the east coast, Bob closes up shop at 5:00 pm, when the futures market for notes and bonds closes for the day. He records his daily trades, shuts down his computer, and hops on his mountain bike to take an invigorating ride through the lush hills nearby.

Bob made a trade to create another spread just before the market closed, and he will hold this position overnight. That makes him a *position trader*, as opposed to the formerly-trendy *day traders* that momentarily prospered during the dot-com boom.

The market will reopen again at 9:00 pm, but Bob does not even bother to check his position. He long ago decided to trade only during the hours of 8:00 am to 5:00 pm so that he can fully enjoy his new lifestyle. Bob is content with the knowledge that his spread is working for him as he sits down with his wife to a gourmet meal of Poteet Strawberry/Fredericksburg Peach Soup and Watermelon-Injected Pork Tenderloin, followed by a delicate chocolate soufflé.

**Position trading:** holding a contract or a spread overnight (or many nights) to carry over to the next trading day. For position traders, the margin requirement is reset to the minimum margin each day (the larger amount compared to the maintenance margin). STARS is a position trading system.

*Day trading:* entering and exiting a trade during the same trading day. Day traders have the benefit of the lower maintenance margin during the trading day, but must exit their position whether profitable or not before day's end. STARS is not a day trading system.

## Chapter 4

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### The Big Lie: Established Trading Systems and Their Common Fatal Flaw

The most popular trading methods used today, including all those described in this chapter, depend on the fundamentally flawed notion that the future is predictable. As a result, all of these methods are doomed to fail over time: any attempt to predict the future is utterly hopeless, and no amount of fancy arithmetic will change that immutable fact of nature.

The futility of trying to foresee the future, however, has not stopped traders from creating ever more sophisticated methods that rely on predicting market movement. This tragic flaw, this inability to recognize that the future will never be predictable, is often masked by confusing

terminology and complicated math to create a comforting image of some higher knowledge. But no matter how clever the system or elaborate the math, the future simply can not be foretold. Only by grasping this essential concept can the benefits and unique opportunities of the STARS method be fully appreciated.

## **Market Analysis Methods**

The one and only reason that speculators trade in the futures market is to “buy low and sell high” so that a profit can be realized. In order to be successful as a speculator, at least when using traditional futures trading strategies, one must be adept at consistently predicting the direction of the market before a trade is initiated. Most traders attempt to accomplish this task through some type of market analysis, harboring the false hope that such analysis is somehow meaningful. Traders fall into two distinct camps when it comes to analyzing the market.

### *Fundamental Traders*

Fundamental analysis is a study of the principals of supply and demand and the production and consumption patterns of commodities, and how these relate to future market behavior. The goal is to sift through fundamental economic data to identify discrepancies between the inherent value of a commodity and the current market price of that commodity. A fundamental trader seeks to profit by buying or selling during this period of discrepancy before the market catches up to reflect the correct information.

### *Technical Traders*

Traders in the second major camp rely on technical analysis, which is a study of price behavior over time. Essentially, technical traders use price information to predict future prices. As with fundamental analyses, technical trading attempts to foresee the future. Both methods fail for that reason. But hope seems to spring eternal, and so technical traders have developed an arsenal of tools to predict market direction. The effort is hopeless, they try nonetheless.

The big gun in technical analysis is the bar chart, which is a graph that represents market price changes over time. The y-axis of the chart (vertical axis) represents the price, and the x-axis (horizontal axis) represents time. A chart will have different configurations, peaks, and valleys depending on the period of time being analyzed. Using the bar chart, traders evaluate historic price behavior, seeking to identify any indicators that will predict market movement in the immediate future.

The various patterns of peaks and valleys create “chart formations” that analysts use to predict prices. Eighteen basic signals and chart formations establish the basis for technical analysis: trend lines, rounded bottoms, consolidations, tops, bottoms, support, resistance, retracements, reversals, head and shoulders, continuation formations, triangles, coils, boxes, flags, pennants, diamonds, and moving averages. The only signals missing are tea leaves, scattered bones and eyes of newt.

A few of these chart formations, described by Russel Wasendorf in *All About Futures*, are discussed below as a means of illustrating how traders use analytical signals to determine when to enter and exit the market.

### The Trend Line

The simple theory behind this most popular analytical tool is that market prices tend to follow straight lines. As such, prices are almost always drawn back to the line if they bounce off. Trends can be upward, downward or sideways. Trend Liners believe that prices tend to cling to straight lines because traders resist paying more for a commodity than others are willing to pay. As long as prices move up, for example, traders will continue to buy until the trend appears to reverse.

Certain human psychological tendencies support the notion that prices tend to cling to straight lines. In herd psychology, people in general are more comfortable doing what others do. Additionally, resistance to change can support a trend because nobody wants to be the first to go against the crowd. When a particular market is following a trend, analytical traders therefore believe the trend will continue.

### The Fan Formation

Trend lines moving up, down and sideways are only the tip of the iceberg. An example of a more complicated trend is the fan formation, which is a series of trend lines extending from the same point but drawn at different angles. This formation develops when a trend line is broken, yet the price continues to move in the same general direction. The theory behind a fan formation is that after a trend line has broken more than three times, a general change in direction is forthcoming.

### The Rounded Bottom

This formation is perhaps the easiest to recognize, and many traders believe that a rounded bottom is a strong signal of an impending change in market direction. The formation begins with prices gradually moving either up or down and then gradually changing direction. The rounded bottom is evident in the absence of an abrupt change in market direction.

### Head-and-Shoulders Formation

Considered by many to be the most reliable analytical tool available, the head-and-shoulders formation has become increasingly popular among traders as an indicator of a sizeable market reversal. The pattern is developed from three rounded bottom formations situated such that the middle one is higher than the other two, both of which are sitting at approximately the same level. The resulting configuration resembles a person's head and shoulders. The formation indicates the

end of an up trend in the market; while the reverse head-and-shoulder formation indicates the end of a down trend.

### Sideways Channels – Trading the Breakout

This trading strategy involves looking out for markets that appear to be trending in a horizontal direction. If a market seems to be trading sideways, with the same tops and bottoms along the way, it may be ready to break out of that trend either up or down. The difficulty of course lies in determining for how long the horizontal trend will continue, and then predicting the direction of the breakout.

### Triangle Formations

These formations are similar to sideways channels in that the market being analyzed has been moving within a relatively narrow range for a considerable time. The difference is that in a sideways channel the upper and lower limits of market movement tend to be parallel, whereas in a triangle formation these areas converge until a breakout one way or another occurs. Three types of triangle formations are recognized: symmetric, ascending and descending. Descending triangles develop when the higher price limits converge toward the lower price barrier, which has tended to stay flat. Symmetric triangle formations resemble sideways channels except that their upper and lower price limits continue to converge. Ascending triangles form when the upper price limits tend to stay flat, while the lower price limit converges upward.

### The 1-2-3 Formation

Trading guru Ken Roberts has popularized the 1-2-3 Formation, originally developed by Ted Warren. The theory of this strategy is embedded in the belief that a particular market will indicate a new trend in three steps. When a market has reached a new 12 month high or low, a trader begins to look for a 1-2-3 formation. The trader labels the position of the high or low on the chart as point #1. If the market rebounds from point #1, this theory claims the rebound will only be of a certain magnitude. When the limit of the rebound has occurred, this is labeled as point #2. If the market then retraces itself back toward point #1, but does not reach point #1 before reversing, this new secondary low is labeled point #3. Once this third point has been identified, the trader waits to see if the market will move past point #2. If the market breaks out from the second point, then the trader would enter the market in the direction of the breakout (opposite of the direction that the market was moving when it originally hit point #1).

This trading strategy is also somewhat of a hybrid between technical and fundamental analysis because the 1-2-3 Formation is tied to supply and demand. As originally developed, the 1-2-3 Formation requires that the trader watch economic news and be able to interpret its meaning. Any trader using this analytical tool must understand the forces driving a market in a particular direction, and must be aware of any information that might be available that could indicate a change in direction.

### Simple and Weighted Moving Averages

Moving averages are the product of a mathematical analysis of the market. Generally, the analyst selects a pre-determined number of days to examine (usually four), and then totals all of the prices for that time frame. A division of this total by the number of days being analyzed will yield an average. With each day going forward, the first day is subtracted and the new day is added, thus giving a new average. This is done for however many days one chooses to examine. Once the moving averages are calculated, the results are charted on a graph. In a down-trending market the moving average usually remains above the current price, while the reverse is true in an up-trending market.

Some analysts use a variation of this theme by placing more emphasis on the current market price, believing that this helps to anticipate trend changes. They calculate a weighted average using a formula that places more value on the more recent prices. This strategy is called a Weighted Moving Average.

### **The Big Lie**

Technical trend trading is a strategy in which any trader with enough motivation can become proficient. Software packages are available today that can assist with charting, calculating averages and culling through historical data. The resulting predictions of market directing based on these

strategies however, are no more accurate than predictions made by flipping a coin. Literally. Denying that fact is the Big Lie. And that Big Lie is at the very heart of everything that Wall Street does; yes, the Street is based on a lie.

Traders are misled into believing that these analytical tools can be used to predict future market movement, but nothing could be further from the truth. With some good fortune, a trader may succeed initially using one of these methods. But because the analysis ultimately offers no advantage over chance, the trader will eventually fail over time.

Why is trading near the level of chance the death of a system? To trade successfully, a trader must win enough to generate earnings that exceed the costs of commissions, slippage and losing trades, and this requires a winning average greatly exceeding 50%. For every losing trade, you must win another just to break even: that means two trades for no gain, and all the cost of trading. If the third trade happens to be a win, that means that 3 commissions, slippage 3 times and one loss must be subtracted from the win. Because of these downstream impacts of a loss, as a general rule of thumb at least 7 out of 10 trades must be winners to trade profitably. Over time, no fundamental or technical method will yield that level of success, because none beat chance alone.

To rely on any of these methods of analysis in making trading decisions would be the height of folly. The hard reality is that all of these analytical methods are down right silly. They are the product of hope triumphing over reason. Just as a terminal patient will understandably grasp at any treatment when traditional methods have failed, traders are desperate for anything that will give

them longevity and profit in the market in the face of desperate losses. But all of these technical trend methods, and fundamental methods as well, fail at a primary level, and placing any hope in them is a form of financial suicide. That 80% or more of traders lose is no surprise when the majority place faith in methods that by definition can never work over any extended period of time.

Trend lines will continue, that is until they reverse. Therein lies the rub. If a trader can not predict the point of reversal, and in fact such a prediction is impossible, how useful is a look at the trend in the first place? At his point of entry, the trader has exactly a 50% possibility of the market moving up or down regardless of the analysis that led to market entry, and completely independent of any perceived trend. The trend could continue *or not*, with either outcome having equal probability. The trend line is a useless tool for predicting market behavior.

Fan Formations can indicate that a general change in direction in the market is forthcoming, but of course not always: as with trend lines, regardless of how much a trader wants to hope that fans have any meaning, the market has exactly a 50% chance of moving up or down at the instant the trader enters the market.

Notice that traders relying on rounded bottom formations would never expect the formation of head-and-shoulders pattern. The rounded shoulders trader would expect the market to go down after the first “shoulder” is formed rather than rising up to form the head of the head-and-shoulders formation. If rounded bottom traders were more right than wrong, head-and-shoulder traders would be in for a long wait. On the other hand, if the formation of a head-and-shoulders pattern were the

norm, rounded bottom traders would routinely move in the wrong direction with the completion of the first shoulder.

### A Third Path

Since the future can never be predicted, the only means of trading successfully is to use a system that is fully independent of market movement so that any need to predict the future is completely eliminated. In turn, the only way to achieve that lofty objective is to create a system that reliably oscillates up and down no matter what is happening in the market. STARS does just that.

STARS represents a third path of trading that is completely different from the fundamental and technical methods used today. Instead of spending time, energy and money on the hopeless task of foreseeing the future, STARS accepts the obvious, and builds on the laws of nature instead of fighting them.

With STARS, traders are able to create oscillating spreads that yield profits even as the market moves randomly in all directions. STARS frees traders from the tyranny of angst and frustration that comes with trying to predict something that is inherently unpredictable. STARS completely eliminates any concern about market movement: STARS can yield profits whether the market is moving up, down or sideways, or anything in between, *before or after* you enter the market. *With an oscillating system, by definition every trade should result in a win.* When a trader finds himself in negative territory, he simply waits for his position to oscillate to profitability.

The concept that an oscillating spread can eliminate any need to predict market movement may seem at first to be so much nonsense. But any doubt about the validity of the STARS method, and its robust ability to generate profit, should be gone with the wind by the time you finish reading Chapter 5.

### **Flat Earth Society**

STARS is based on a philosophy that negates almost every cherished notion about trading. As such, the burden of proof that STARS actually works is understandably high. People tend to cling to old beliefs even in the face of overwhelming evidence to the contrary because that is simply our human nature. To paraphrase Carl Sagan, extraordinary claims require extraordinary evidence.

Fortunately, every reader of this book can generate the requisite extraordinary evidence that STARS can beat traditional systems of trading, without any data being supplied by the authors, who could be dismissed as biased. After familiarizing yourself with STARS in the next chapter, download historic data for whatever market is of interest to you, and paper trade your favorite system directly against STARS. Go back as far back in time as you like, and you be the judge of what system worked best over that period of time. Do not make the mistake, however, in thinking that past behavior can be used to predict future performance.

## Chapter 5

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### STARS: The New System and Why It Works

Making an egg from an omelet is impossible for good reason. Breaking is easier than repairing; tearing down is easier than building up. But STARS is a rare exception to this rule. In Chapter 4 we labored to destroy the stubborn edifice of old thinking on Wall Street. The easy part now is to reconstitute the broken shell of obsolete trading methods to create an entirely new system of generating wealth. The task is easy because we use the chaos of market movement to our advantage and embrace the fundamental unpredictability of the future.

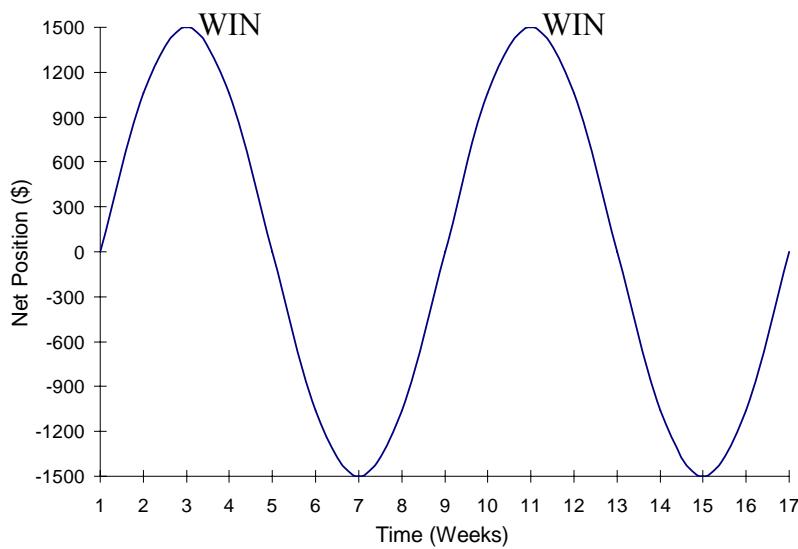
## Basic Principles

### An Ideal World

We set out to create a new trading system with two goals in mind: 1) never lose, and 2) earn money without ever predicting the direction of the market. The only means of achieving these seemingly impossible goals is to trade a system that oscillates (see Figure 1). In this ideal, the *frequency* is known (how many peaks are seen each year) and the *amplitude* (how tall the waves are from top to bottom) is well defined. In the simplest form of trading an oscillation, the trader simply waits to exit until his position reaches a pre-determined level above zero (in this example \$1500).

**Figure 1**

### Trading An Oscillation



Because the oscillation is of known amplitude, a trader can precisely know the amount of money he must have available as the system moves against his position. Since the frequency of the oscillation is known, the amount earned over time is also known since profits are taken at each peak. In this ideal world, the trader now knows precisely how much he must invest for a particular return, and has no risk of ever losing because the wave peaks keep rolling on.

### *The Real World*

The means of creating a perfect oscillation would be to trade two markets that exactly mirror each other, but with a slight time offset. Clearly nothing like that exists in reality. So how does anybody move from this ideal image to the practical constraints of actual trading? The only way is to create an oscillation by selecting two markets that move closely together, then trade the two contracts simultaneously in opposite directions, one market long and the other market short. This constitutes what is known as a *spread*, as we learned with Trader Bob.

### *Contract Selection*

The choice of contracts available to create the spread is limited. The only markets that move in synchrony reliably enough in a spread to create an oscillation are those that trade with different durations within the same market, such as 2-year, 5-year, 10-year and 30-year Treasury notes, or those that are intimately related, such as the Dow Jones Industrial Average and S&P 500 (all 30 stocks in the DJIA are found in the S&P 500). An oscillation can be created using other contracts

across different markets that generally follow the same market trends, for example S&P traded against NASDAQ. However, trading across different markets considerably increases volatility, and therefore risk, because the two different markets are more likely to diverge than the same market at different durations. *We therefore strongly recommend only trading five-year and ten-year Treasury Notes* (trading symbols ZF and ZN). These are ideal because they are the same market, just different durations, so the two move together, just at different amplitudes.

Even with these strict criteria for contract selection, however, if you are willing to take the risk of markets diverging, several markets are available for use with STARS. In addition to the Dow Jones traded against the S&P 500, a single contract traded simultaneously across two exchanges can meet the criteria necessary for oscillating spreads (review the definition of arbitrage in Chapter 3). For example, the CME and CBOT publish inter-commodity spreads for a broad range of interest rate, equity and agricultural products. These spreads come with credits can be as high as 90 percent (indicating extremely low risk), making them even more attractive with low margins. Again, though, we recommend you stick with ZF and ZN.

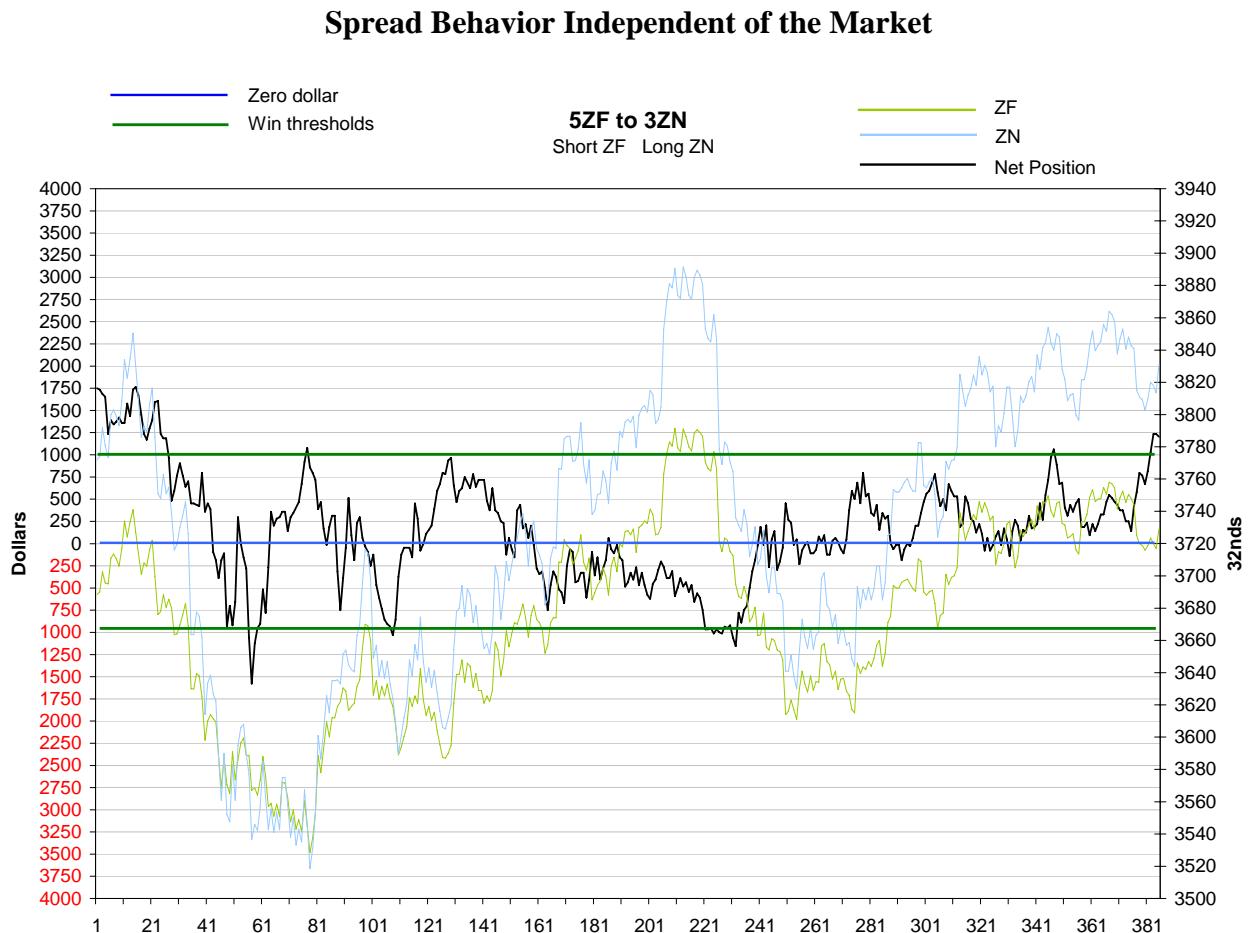
### *The Role of Ratios*

But even selecting the right combination of contracts is not sufficient to create an oscillation. While two contracts might always move in synchrony, they do not generally move the same amount. For example, a 30-year T-note will move more than a 2-year note for any given change in interest

rate. A trader must compensate for this differential movement by working the two markets in carefully chosen ratios, so the spread consists of unequal numbers of the two contracts.

Think of the two contracts in a spread (traded in the correct ratios) as two ropes coiling around each other, that are then used in a game of jump rope. No matter where the ropes are in the air, on the upswing, or as they pass underneath, the relationship between them is always the same. The two ropes may shift a little relative to each other, but that small random movement is completely independent of the actual position of the two ropes in the air.

Two contracts of different duration within the same market can work just like the two ropes: if the right contracts are traded in proper ratios, only the relative movement between the two contracts creates the oscillation, completely independent of market movement. That a properly constituted spread can move independently of the market is seen clearly seen in Figure 2, which plots raw data of 5-year and 10-year T-notes over a period covering about 2 years. The black line tracks the behavior of a ZF/ZN spread the authors actually traded, and the two finer colored lines plot market movement. The scale on the left is in dollars (that is the scale for the net trading position); and the scale on the right plots the magnitude of the bond movements.

**Figure 2**

Even if you do not fully understand the graph above, just note that the black line (your trades) move independently of the market. Sometimes when the market is moving up your position goes up; sometimes when the market goes up your position goes down. *With an oscillating spread, the trader's position no longer tracks the overall market, a truly amazing accomplishment.* No longer must a trader hope futilely that the market moves up or down in his favor. He can profit

when the market moves in any direction. Because of the protective effects of the oscillation, exposure to loss now depends only on the volatility of the two contracts moving relative to each other (how far the ropes can move apart), not actual market movement.

Fortunately, there are realistic limits to how much two contracts in the same market can diverge, and this restricts the amount of movement of the spread. After all, a change in interest rate will not make a 5 year T-note go up and a 10 year T-note go down over time. But in the trading world, nothing is ever guaranteed, and every trader must protect himself against the fact that the world is not ideal by accounting for imperfections in the frequency and amplitude of the oscillations.

### *Spread Trading*

Spreads are central to the story we want to tell, because STARS is ultimately a highly specialized method of trading opposing contracts as a means of creating an oscillation. A better understanding of spreads will make the simple explanations of how to trade STARS easier to digest.

The world is divided between two types of spreads, which were touched on earlier. Inter-delivery (intra-market) spreads are comprised of contracts from the same markets with different durations (like 5-year and 10- year treasury notes). Inter-commodity spreads are created using related but different markets (such as S&P and NASDAQ). Generally, only intra-market spreads can be used to create reliable oscillations with reasonable amplitudes, with the important exception being the DJIA and S&P 500. Inter-commodity spreads are more volatile than intra-market spreads, as

previously mentioned, and therefore typically do not fit within our methodology. As we emphasized earlier, we strongly and highly recommend only trading ZF and ZN.

All spread traders profit from the price difference between two contracts, and all are concerned more with the price differential between two contracts rather than the absolute price of the commodity or futures contracts. But regardless of the system used, all spread traders, at least before STARS, rely on either *bull spreads* or *bear spreads* in some guise, even if not explicitly.

In a bull spread, the trader buys the nearby contract (the contract in the spread with the shortest duration, such as a 5-year note) and sells the deferred contract (the contract in the spread with the longer duration, such as a 10-year note). *The bull spread trader creates a spread with ratios so that he is expecting the nearby contract to be dominant.* This means that when the market moves up, the nearby contract would rise faster than the deferred contract. A bear spread trader expects the reverse.

In terms of predicting market direction, therefore, bull and bear spread trading is really no different than trading a naked contract (one traded alone, outside of any spread). The trader expects to profit by predicting whether the market will rise or fall from the entry point. The spread is simply a hedge in case the trader is wrong, *but the spread in no way eliminates the need to predict market direction.* The downside to this hedge through spreads is that if the trader is right, the profit will be smaller than if trading a naked contract.

The caveat to this scenario is that a bull spread trader, for example, could profit even if the market declines, as long as the deferred contract drops faster than the nearby contract. But that is not what the trader expects to happen, and not the reason the spread is created, because the expectation is that the nearby contract (in the proper ratio) will always outpace the other, in either direction up or down. This is a backdoor way to profit with an unexpected market movement, but it does not constitute a system, nor true market independence; rather it relies on luck, which will eventually run out.

## STARS

STARS is an entirely new way to use spreads to create wealth. Many traders before us have developed approaches to minimize volatility within a spread. Christian Dunis and Pierre Lequeux (May 2000) published a good paper comparing the use of intra-day, daily and optimized spreads to identify the least volatile ratios, either by maximizing the correlation or minimizing the standard deviation of movement between two contracts. (These authors conclude that the intra-day spread ratio entails the least risk). But reduced volatility is not equivalent to market independence. Even traders seeking to minimize volatility ultimately rely on a dominant contract for profit; they are just more comfortable waiting out the market when it goes against their position.

STARS takes spread trading one critical step further. Trading an intra-market spread, for example one consisting of 5-year T-notes (with a trading symbol of ZF) and 10-year T-notes (ZN), in the appropriate ratios, results in a spread in which *there is no dominant contract. There are no*

*bull or bear spreads.* **STARS uses a spread to create an oscillation, not to hedge a bet if a trader does not correctly predict market direction.**

### *Choosing a Ratio*

STARS is primarily traded as an oscillating spread using 5 ZF against 3 ZN, and that ratio is not arbitrary. As noted earlier, other combinations and other contracts are *possible*, but we have found the 5ZF/3ZN ratio yields the most stable oscillation for the smallest margin. For the remainder of the book, therefore, examples that highlight STARS trades will be restricted to ZN and ZF for the sake of simplicity and clarity. The principles of STARS apply soundly to other contract combinations that allow for oscillating spreads, including the Dow Jones traded against the S&P 500, or the same contract traded simultaneously across the CME and CBOT, as mentioned earlier. *But the ideal is to trade the ZF-ZN intra-market spread for reasons that will soon become clear.*

The proper ratio between any two contracts necessary to create the oscillation can be identified using two different techniques. The first relies on a gross examination of historical data, which we do not favor because the past can not predict the future. Or, second, the ratio can be calculated by looking at economic fundamentals such as duration and discount rate. Historical data, while dangerous to use as a primary tool, offer a reasonably good reality check of the calculated values.

## Duration

Why does a 5:3 ratio make sense with ZF and ZN? Because of a concept known as *duration*.

Duration was invented as a means of comparing bonds with different maturity dates and face values so their comparative yields could be put in equal terms by giving a single value to the combination of maturity and coupon rate. With duration, traders can evaluate, for example, how a 5 year bond with a 4% coupon compares in value to a 10 year bond with a 7% coupon.

As intuition would predict, and duration confirms, a bond with a longer maturity will fluctuate more with a given change in interest rate. But the actual calculation of duration is complex because factors other than maturity and interest rate come into play. Fortunately, we do not need to delve into further detail if we take advantage of a rule of thumb widely used by experienced traders: *the percentage change in the price of a bond is the maturity times the change in interest rates*. What does that mumbo-jumbo mean? Let's see, below.

Let's apply that rule of thumb to 5-year and 10-year notes. The value of a 10-year note in the face of an interest rate change from 6% to 3% would increase by approximately 30% (a 3% decrease in interest rate multiplied by 10 years). That same change in interest rate would result in a 15% increase in value for the 5-year note (the 3% change in interest rate times 5 years). So by this rule of thumb, a 10-year note will move approximately twice as much as a 5-year note for any market change.

It is no coincidence that a 10-year note is twice as far into the future as a 5-year note, and moves twice as much for a given change in interest rate. The rule of thumb works this way because future events become more and more difficult to assess the farther away from the present we look. The value of almost everything, including bonds, becomes more unknown with time, and with greater uncertainty comes greater volatility. Somewhat surprising is that over short enough time periods, the relationship of volatility with time is linear: the world could have worked such that a 10- year note is three, four or five times as volatile as a 5-year note. But reality turns out to make something 10 years away twice as volatile as something 5 years away, across many different examples.

So why not trade the two contracts 2:1, according to the rule of thumb, rather than 5:3? Economists are known for saying, “on the other hand” because the dismal science allows for many outcomes for any problem. This led Harry Truman to say famously to an aide, "The next time I appoint an economic advisor, remind me to find someone who's one-handed!"

So we are faced with the “on the other hand” problem. The 2:1 ratio does not work because life is complicated, and factors other than duration also come into play. Nevertheless, duration gives us excellent boundaries for trading ZF and ZN. We can be confident that the two will, over time, not trade in a ratio of 1:1, because we know that by definition a ZN is more volatile than a ZF. We can also be confident that the two will not trade in a ratio greater than 2ZF to 1ZN, because by our rule of thumb, the ZN should not, over time, be more than twice as volatile as the ZF. We could simply split the difference between a ratio of 1:1 and a ratio of 2:1, and trade 1.5:1, which is of course 3:2.

Without any further analysis, this would make great sense. By placing himself midway between two extremes, a trader reduces volatility and minimizes the amplitude of movement. But if we look at *discount rate* as a complement to duration, another ratio emerges.

### Personal Discount Rate

Like duration, personal discount rate is a complicated concept foisted upon the general public by economists. But we need only to understand the basic idea, and how it applies to our effort to define the best trading ratio. Roughly speaking, discount rate measures how much we would pay to have some future benefit given to us now (the classic example is taking a lump sum instead of an annuity).

Consider a starving man, who is offered a choice: he can have a sandwich now, or \$10,000 a month from now. The unfortunate fellow will certainly forego future riches for immediate nourishment. He essentially has an infinitely large personal discount rate. The sandwich is worth everything to him, and the \$10,000 a month from now has zero value. Now consider a wealthy man given that same choice. The sandwich has zero value to him (he just ate a big lunch), and waiting for the \$10,000 causes no pain but much gain. He basically has a personal discount rate of zero, meaning he is willing to pay nothing to have a future benefit given to him now. Most of us fall somewhere in between. People offered a choice between \$1 million over their lifetime versus a one-

time payment of \$750,000 will generally choose the lump sum. People discount a future \$1 million for some lesser amount up front.

ZF and ZN do not trade in a perfect 2:1 ratio as predicted by duration because, among other reasons, people tend to value money coming due in 5 years more than money available 10 years hence. As the term implies, personal discount rate in fact discounts the value of money paid out by a bond due in 10 years relative to 5 years.

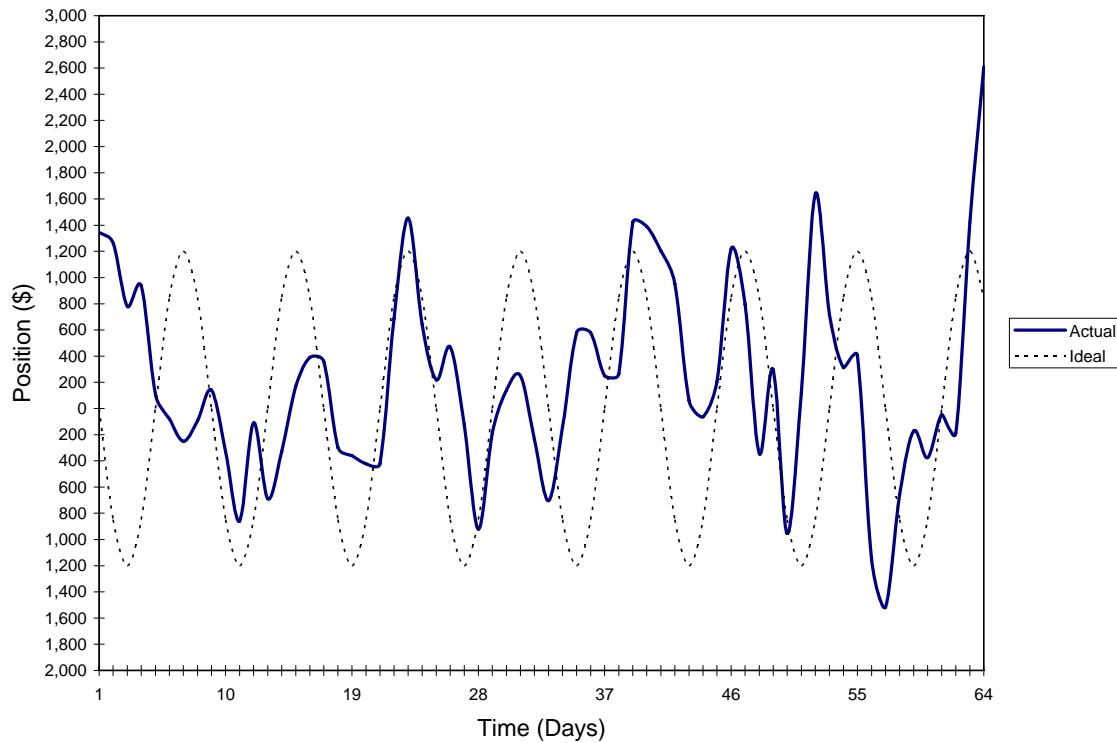
The result is that personal discount rate fights against duration: duration means that a 10-year note should change in value twice as much as a 5-year note, but discount rate means that money 10 years out is less valued than 5 year money. So with discount rate and duration at odds, a 10-year note will change in value at a rate less than twice that of a 5-year note. The exact amount can not be known with great accuracy, but the boundaries of the optimal spread just got smaller.

If we consider that discount rate diminishes the value of 10 year money compared to five year funds, how much less than 2:1 would the ratio be? Calculating personal discount rate across the general population is not an exact science. But we can assume reasonably that people would generally not discount a future benefit 10 years out by 50% to have the funds 5 years from now instead. This is reasonable because traders willing to wait for 5 year money have already demonstrated a relatively low discount rate.

That places the ideal ratio, therefore, somewhere between 1.5:1 and 2:1. If we simply split that difference, the ratio would be 1.75:1 (7:4). But trading 11 contracts (7ZF and 4ZN) to create a spread becomes expensive in terms of margin and slippage. Trading 7ZF to 4ZN also has the disadvantage of exposing a naked ZF with no offsetting ZN for protection. Think of trading 7ZF and 4ZN as trading 2 spreads of 3ZF and 2ZN, plus a lone ZF. That lonesome ZF results in greater volatility, amplitude of movement, and the requirement for more capital.

A good compromise is a ratio of 1.67:1 (5:3), which minimizes exposure and volatility without compromising the oscillation. Exposure to wild swings is limited compared to the 7:4 ratio because a spread of 5ZF and 3ZN can be seen as two spreads of 3:2 and 2:1, both recognized as valid spreads by the Chicago Mercantile Exchange. With the 5:3 ratio, no naked contract sits alone.

A spread consisting of 5 ZF against 3 ZN is the most practical real-world approximation of the true relative values of ZF and ZN as a consequence of discount rate and duration. The behavior of this spread (5ZF:3ZN) is plotted again in Figure 3, this time comparing the actual spread behavior to an ideal sine wave over a 3 month period.

**Figure 3****Comparing Actual Spread Behavior to An Ideal Oscillation**

Figures 2 and 3 together demonstrate clearly that the 5:3 ratio oscillates, and that it does so without any correlation to market movement.

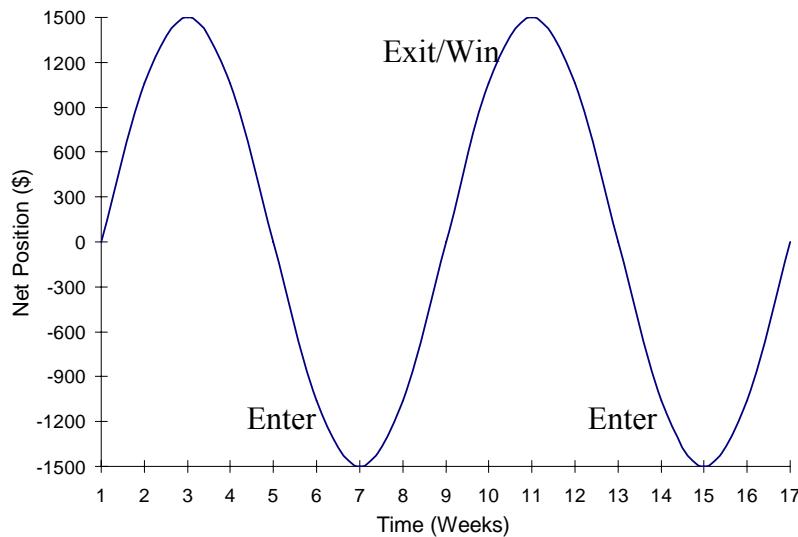
**But let us be clear about something. In the past, readers have confused the ideal concept of an oscillation, used to illustrate the fundamentals of STARS, with the realities of actual trading. The picture above is real, from real data, but the picture is not always as pretty. The oscillation is by no means perfect. Get over it. The oscillation can exceed your win/exit thresholds; the oscillation can stall for months, or can enter into an oscillation above**

**or below your thresholds. *None of this matters.* Be patient, let the system play out, and you will eventually wind up back in positive territory. It could take months. Such imperfections in the oscillation do not prevent you from earning huge returns.**

### *Income Opportunity*

Because markets are not perfect, and duration and discount rates together are not absolute values, the two contracts, while highly correlated (when traded 5:3), do not move in perfect synchrony. The moments of disharmony create the opportunity for profit, which can be secured by watching the market over time. The slips from synchrony do not necessarily create any potential for loss because of the oscillatory nature of the spread.

The simplest way of trading a spread is not the most profitable. Let's say that Figure 4 shows the result of a spread created with 5 Long ZF and 3 Short ZN contracts. In the simplest form, ***the trader would begin by paper trading the spread to watch for the optimal entry point.*** By paper trading a spread over time, you can see the oscillation develop, and therefore you can determine where the top and bottom of the oscillation can be found. Near a trough, say at -\$1200, the trader would enter the market, then take a win when profits reached a pre-determined level near the peak, for example \$1200 above zero, yielding a \$2400 win. At that point, the trader could again paper trade and wait to re-enter the market at the next trough using the identical spread.

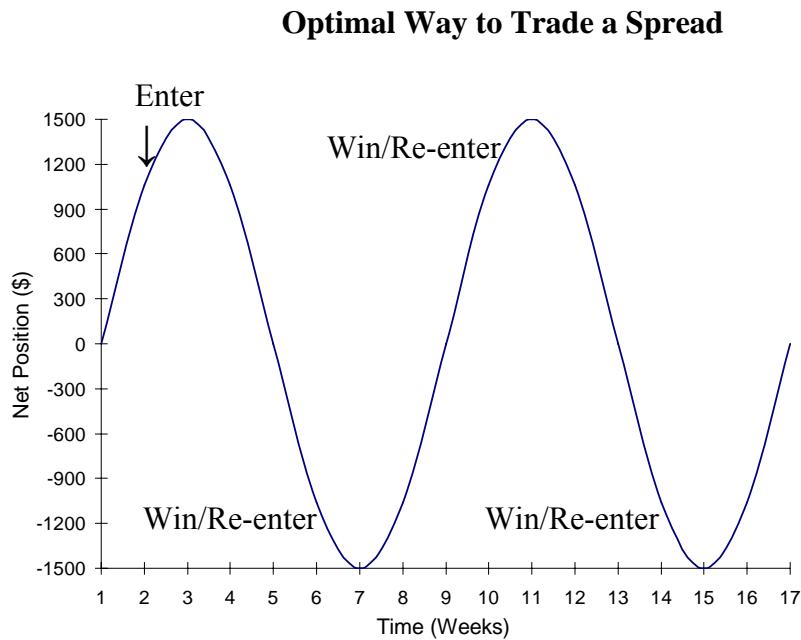
**Figure 4****Simple Way to Trade an Oscillation**

But this simple approach is only half the story. With just a small modification to the method, income will double with no increase in capitalization requirements, thereby increasing the rate of return by a factor of two.

Arbitrarily, let's start by paper trading 5 Long ZF and 3 Short ZN (see Figure 5). As our paper position approaches the peak, we enter the market in the *opposite direction* by reversing the spread, with 5 Short ZF and 3 Long ZN. (To avoid confusion, we will continue to track spread behavior as if we were still trading 5 Long ZF and 3 Short ZN, even though at the entry point we actually are trading the opposite spread).

As the trough approaches (remember, the graph is tracking a long spread), and our position (which is actually the result of a short spread) becomes \$2400 positive, we take the win by exiting with twice as many contracts in the opposite direction to create the reverse spread again. In this example, we would buy 10 Long ZF and sell 6 Short ZN. This move generates our profit, and creates a new spread consisting of 5 Long ZF and 3 Short ZN. At the next peak, when our position is \$2400 positive, we do the same thing in reverse: sell 10 Short ZF and buy 6 Long ZN, giving us a profit and a new net position of 5 Short ZF and 3 Long ZN. In this way, profits can be taken with each side of the oscillation, without any additional capital to cover margins.

**Figure 5**



### *Progressive Capitalization*

Even with the impressive performance of the actual spread seen in Figure 3, real world oscillations never look exactly like an ideal sine wave. Even more important, the amplitude of movement is not perfectly limited as with an ideal wave. Unforeseen circumstances such as a terrorist attack, a surprise announcement from the Federal Open Market Committee, or violence in the Middle East can have a transient but large effect on a trader's net position, even when protected by a spread. Every trader must be prepared to handle that eventuality.

If a trader believes that over time the system will oscillate, *one way* to handle the market when his position becomes negative past a set threshold is to get another spread. We call this progressive capitalization, although the term is used differently elsewhere. For example, let's say we hold a spread consisting of 5 Long ZF and 3 Short ZN, and our position becomes negative \$1500. At that point, we create another spread by buying 5 more Long ZF and selling 3 more Short ZN. We now hold two spreads with different entry points. When the second spread we created hits our threshold for a win (say \$2400), we exit that spread without creating a new one. When the first spread becomes positive enough to take a profit, we double the contracts in the opposite direction as discussed previously.

*If progressive capitalization seems too complicated for you, just forget it. Make a trade and just wait until you get to a win. You still have the opportunity to do extraordinarily well.*

### *Risk versus Return*

How negative can a trader's position become? How many spreads must he be willing to capitalize? In answering these two questions, each trader must personally evaluate the amount of risk he is willing to accept.

### Lower Risk Approach

The most conservative approach is to put aside enough capital that could reasonably be required when the net result of the spread becomes significantly negative. While nothing is ever guaranteed with trading, a gap of more than \$7,500 seems unlikely with a spread consisting of 5ZN and 3ZF. Remember, the 5:3 ratio results in ZN and ZF moving almost perfectly together; in order for a \$7,500 gap to occur, the two markets would have to *diverge* by more than 230 32nds, meaning the market would have to move even substantially more. That is not the type of movement one would reasonably expect to see, but again nothing is guaranteed with trading.

If we enter with a new spread whenever our position is \$1500 negative, we would have to capitalize for 5 spreads (\$1500 times five to get \$7,500), plus the margins and the negatives incurred by each spread. We can reduce the number of spreads to capitalize by waiting to create a new spread

with a bigger negative. For example, if we waited until our position was \$2,500 negative to get an additional spread, we would have to capitalize for only 3 spread (\$2,500 times three to get \$7,500). The downside to that, of course, is that we miss out on wins as our position corrects itself toward zero.

With this lower risk approach, in which we anticipate the need to capitalize five spreads consisting of 5ZF and 3ZN, we would have to set aside in our trading account roughly \$40,000 in order to avoid a margin call up to that point. Setting aside that much money provides a degree of safety against a margin call, but also significantly reduces the rate of return.

*On the other hand, you do not have to use progressive capitalization! You can enter the market, wait it out until you hit your win threshold, then re-enter in the opposite direction. This is by far the easiest and most conservative way to trade the STARS system.*

### Higher Risk Approach

If you are attracted by progressive capitalization, an even more aggressive tactic is to capitalize only the amount necessary to trade two spreads, with the assumption that our net position will become more than \$3000 negative only in rare circumstances. The requirement here is that we must have quick access to other funds for those rare times, or we risk losing our money with a margin call. With this scenario, we would be trading with \$10,000, increasing the rate of return by more than a factor of 4 compared to the low risk approach.

### *Position Tracking*

For ease of reference, we will refer to a spread as “long” or “short” depending on the position that the ZF holds in the spread (5 Long ZF and 3 Short ZN is a long spread, for example). This is strictly arbitrary, and does not imply a dominant role for ZF; we could have just as readily labeled the spread based on the ZN position.

Progressive capitalization requires that a trader track the value of each spread independently, whether the spread is long or short. The best approach is to create a spreadsheet in Microsoft Excel© or Corel Quattro Pro©. A cutout of a spreadsheet in its simplest form is presented in Figure 6, below.

**Figure 6**

<b>Fills #1 SHORT</b>					
	Short ZF		Long ZN		
5	109 29.0		109 24.5		3
<b>Current Market</b>					
	ZF		ZN		
	111 4.0		111 31.0		
<b># 1 Short</b>					
<b>\$515.63</b>					

The basic unit to track each spread consists of three elements. The first records the entry point fills for the two contracts. This example shows a short spread, with 5 Short ZF filled at 109/29 and 3 Long ZN filled at 109/24.5 (the units will be explained in Chapter 5). The second element is where the current market ticks are entered. Here, the market has moved up considerably, with ZF now at 111/4.0 and ZN at 111/31.0. The third section calculates the trader's net position between his fills and the current market, which in this case results for the moment in a positive \$515.63.

Let's say the market moved so that ZF is now at 111/14.0 and ZN is at 113/4.0. That would put the trader's position at \$2,421.88 (see Figure 7).

**Figure 7**

<b>Fills #1 SHORT</b>					
	Short ZF		Long ZN		
5	109	29.0	109	24.5	3
<b>Current Market</b>					
<b>ZF</b>		<b>ZN</b>			
111	14.0	113	4.0		
<b># 1 Short</b>					
					\$2,421.88

At this point, if his profit threshold was \$2,400, he would take the win in the short spread by buying 10 Long ZF and 6 Short ZN. This yields his profit, and leaves him with a net position of having now a long spread with 5 Long ZF and 3 Short ZN (see Figure 8).

**Figure 8**

Fills #1 LONG					
	Long ZF		Short ZN		
5	111	14.5	113	3.5	3
Current Market					
	ZF		ZN		
	111	14.0	113	4.0	
# 1 Long					
	(\$125.00)				

Every trader can expect to have a  $\frac{1}{2}$  point of slippage with each trade on each contract. In general, each transaction will be instantly negative, reflecting the cost of slippage for that trade.

Chapter six provides examples of real trades, so that we can see how the basic principles of STARS are put to practical use. Spreadsheet design, and principles of tracking trades, are discussed in more detail as actual trades are followed start to finish.

## When to Start Paper Trading

After you review the next chapter, you might ask, so when do I start paper trading? Any time! Since you are just paper trading, you have nothing to lose. Just get going. Do the paper trades, track them over time, plot your position over time, and you will start to see the oscillation of your position. When you see the oscillation, you can determine what your entry and win thresholds should be when you start trading with real money. You'll have a better feel for how to start your paper trades after completing the next chapter, where we go step by step through some actual trades I have made, and give you insight into some basic spreadsheet design to help you track your spreads.

## Chapter 6

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### Sample Trades

Theory is great, but what can STARS do for you today? The best way to explore the benefits of trading STARS, and to bring the method to life, is to walk through some real trades. For this purpose, we will focus on ZF and ZN, traded in the ratio of 5:3. We emphasize yet again that with STARS you can go weeks or months between trades. This is not a day-trading system. The trades below are real, but compressed in time for purposes of illustration.

## Units of Measure

Treasury notes are traded in units of 32nds, and that makes for some strange math. For example, ZF might be trading at 112.075, which is the number you will see on your real-time data or delayed data screen (presented as 112075, with the decimal point assumed rather than actually placed). But that presentation can be confusing because the number to the left of the assumed decimal point is the total number of 32nds divided by 32, while actual 32nds are found to the right of the decimal point. And if that were not complicated enough, the last number to the right always represents a fraction of 0.5 or zero. So in a posting of 112.075, the “075” means 7.5 32nds.

We need to convert this compound number of 112.075 (112075) to a simple total of 32nds for the purposes of tracking our position in a spreadsheet, because we can not easily add and subtract a compound number. So let's break down the posting of 112.075. First we have to multiply whatever number is to left of the decimal point by 32; in this we case we multiply 112 x 32. That gives us a total of 3584 32nds (112 x 32). To that we then must add the 7.5 32nds to the right of the decimal point. This give us a total of 3591.5 32nds ( $3584 + 7.5$ ). Congratulations: you have just converted the compound number of 112.075 to the simple number of 3591.5, which you can now easily use to calculate your net position.

## Strategies for Tracking Your Net Position

The software provided by your broker will contain a window that calculates your net position.

When trading only a single spread, that is all the information you need. But if you are using progressive capitalization, you may be holding more than one spread, and then you need to track each spread individually. Your broker's software will not allow you to do that. At least I know of no broker which has software with that capability.

The solution is to create a spreadsheet that allows you to input the fills for individual spreads, which can then be tracked separately against current market position. Excel© and Quattro Pro© both offer easy-to-use platforms to create the necessary tracking system. The goal is to have maximum flexibility in tracking any and all aspects of your trade, and to have in hand at all times an instant, complete and accurate picture of your net position.

## Basic Spreadsheet Design

As you start trading, the spreadsheet can be simple, and initially, the simpler the better. But as you become comfortable with your spreadsheet software, you will find it useful to add features that enable you to track multiple aspects of your trades.

In Chapter 5 we introduced the basic unit of a tracking spreadsheet. Remember that each box in the spreadsheet is called a “cell.” To track a single spread, a minimum of three fields are needed (Figure 1):

- fills for the two contracts creating the spread (ZF and ZN in this case)
- current market data
- a calculation of your net position

In addition, there must be a cell to indicate the number of contracts bought or sold for each element of the spread. In this example, we bought 5 ZF and sold 3 ZN.

**Figure 1: Basic Elements of a Spreadsheet**

<b>Fills #1 LONG</b>						
Long ZF		Short ZN				
5	111 14.5		113 3.5	3		
<b>Current Market</b>						
ZF		ZN				
111 14.0		113 4.0				
<b># 1 Long</b>						
(\$125.00)						

**Field #1:** Fills  
(5 long ZF; 3 short ZN)

**Field #2:** Current Market

**Field #3:** Net Position

**Field #1**

The trick here is to enter fills as they appear on your real-time data screen (111.140, for example), and then have the spreadsheet automatically calculate the total number of 32nds. The easiest way to do this is to enter the number to the left of the decimal in one cell and the one to the right in another, as above.

In this example, for ZF your formula would multiply the number in the cell to the left (111) by 32, then add whatever number is in the cell to the right (14.5). Place the result of this calculation in a cell for later use. For ZN, your formula would similarly take numbers from the appropriate cells, which in this case would result in multiplying 113 by 32, then adding 3.5; place the result of this calculation in another cell.

**Field #2**

In order to know your net position in a spread, you must be able to compare your fills to the current market. Field #2 provides space to input this market price information, which you take from your real-time or delayed tick data. Input the data in the same way as you did in Field #1. Using the same methods as before, take the current market data for ZF (for example, 111.140), and create a formula to multiply the number to the left (111) by 32 and add the number to the right (14.0), then do the same for ZN.

### Field #3

In this field you calculate your net position for a single spread. This is accomplished by comparing your fills against the current market. Let's walk through the calculation for the example given in Figure 1.

To create a spread, you bought ZF at 111.145. The fill converts to 3566.5 32nds (111 multiplied by 32, plus 14.5). The ZN you sold at 113.035 converts to 3619.5 32nds (113 times 32, plus 3.5). Now we need to compare these fills to current market prices.

The current market is at 111.140 for ZF, which converts to 3566.0 32nds; ZN is at 113.040, which converts to 3620.0 32nds.

Since you *bought* ZF, if ZF goes up relative to your fill, you will be positive, and if ZF goes down from your fill, your ZF will be negative. In this case, you bought ZF at 3566.5, and the market is now at 3566.0, a half point against you.

You *sold* ZN at 3619.5 32nds. The ZN will be positive if the current market is below your fill, and your ZN will be negative if the current market is above your fill. The current market is now 3620.0 32nds, again a half point against you. It is typical, after just entering the market, to have both contracts become negative as a normal consequence of slippage.

In a long spread (Long ZF, Short ZN as in this example), your net ZF position is calculated with a formula that subtracts your ZF fill from the current market price (market price minus ZF fill); your ZN is calculated with a formula that subtracts the current market price from your ZN fill (ZN fill minus market price). In this case the formulas will tell you that you are a half point negative in both ZF and ZN.

Each point of movement in a Treasury note market is worth \$31.25. The next step in calculating your total net position is to create a formula that multiplies your net ZF result times \$31.25 and your net ZN result by \$31.25. Since in this example both the ZF and ZN markets moved a half point against you, your ZF is negative \$15.625 (half of \$31.25), and your ZN is negative \$15.625.

To create your spread, though, you actually bought *five* ZF. The other part of the spread was created with *three* ZN. So your formula must take the net ZF position and multiply that by how many ZF contracts you bought, which gives you a net negative for ZF of \$78.125 (\$15.625 times 5). You then do the same for ZN, so the net negative for ZN is \$46.875 (\$15.625 times 3). Add those two negatives together, and you get a total negative of \$125.00, which is exactly what the spreadsheet shows. That is your net position at current market prices.

All of this effort might seem like too much trouble just to calculate your net position. But now, whenever you plug in any new set of market numbers, you will instantaneously know your net position for your one long spread

You might wonder why we bother converting compound numbers to simple totals of 32nds, when it's obvious that going from 111.145 to 111.140 is a loss of a half point. The answer is that often your fill and current market prices will cross boundaries of 10. For example, you might be filled at 112.03, and then see the market decline to 111.28.5. Now the calculation is not so obvious. That is why you need to do the conversion, and why you need to use a spreadsheet.

## Long and Short Spreads

The example above showed how to track a *long* spread consisting of 5 Long ZF and 3 Short ZN. But when trading an oscillation, you will also find yourself trading a *short* spread consisting of 5 Short ZF and 3 Long ZN.

Everything that was done before applies equally to a short spread, with only one exception, and that is in the calculation of your net ZF and net ZN positions. Since you *sold* ZF to create the short spread, if ZF goes down relative to your fill, you will be positive, and if ZF goes up from your fill, your ZF will be negative. You *bought* ZN, meaning that ZN will be positive if the current market is above your fill, and your ZN will be negative if the current market is below your fill.

In a short spread (short ZF long ZN), your net ZF position is therefore calculated with a formula that subtracts current market price from your ZF fill (ZF fill minus market price), and your

ZN is calculated with a formula that subtracts your ZN fill from the current market price (market price minus ZN fill).

You might find tracking more convenient if you combine the possibility of a long or short spread into a single format. As you incorporate more flexibility into your spreadsheet, you will want to separate Fields #1, #2 and #3 into distinct areas. In Figure 2, Field #1 has been separated so that both long and short spread fills could be combined into a single fill box.

**Figure 2: Combined Fill Box (Field #1) for Long and Short Spreads**

Fills #1 LONG						
Long ZF		Short ZN				
5						3
Front Month						
Broker #1						
Fills #1 SHORT						
Short ZF		Long ZN				
5						3
Front Month						

A separate fill box requires that you also create a distinct field to track your net position automatically, whether trading a long or short spread. This would be a separate box that looks similar to Field #3 in Figure 1, but with cells for both a long and short spread.

You only need one box to record current market price, because the formula in each cell of the long and short spreads can reference the same current market data.

### **Following an Actual Trade**

The best way to get past any confusion about tracking spreads is to follow an actual trade from start to finish. *We have chosen an actual trade for illustration that took place in a relatively short period of time. But the time between trades can actually be months (see box below).* Let's go back in time. Today is January 6, 2003, and like Trader Bob, we'll start our day after a relaxing breakfast. We click on the icon for our broker's software, open the trading screen, and prepare to send our order. We want to create a long spread of 5 Long ZF and 3 Short ZN. We double check to make sure that our order is correct, and submit the trade. Our fills come back in seconds as 111.310 for ZF and 113.070 for ZN (Figure 3). After the expected slippage, the market quickly adjusts back to our fill, giving us a net position of \$0.00.

#### *An Important Aside About Oscillations*

Nothing in real life works perfectly. Oscillations in this system can stall for 6 months! That is absolutely nothing to be concerned about. It might be boring, but it has no impact on the average bottom line. All you care about is the return on your money, or more bluntly , how much money you make. It is OK to go several months without a trade! Really! Because then you'll find you might trade several times in a month. In all cases, though, you never lose if you play the system properly. So be patient. Look at your return over a period of a year or more, and then you'll stop caring if the oscillations stalls.

**Figure 3: Fills, Market Price and Net Position for Long Spread #1**

Fills #1 LONG				
	Long ZF	Short ZN		
5	111	31	113	7.0
Front Month (H3)				
Broker #1				
Fills #1 SHORT				
	Short ZF	Long ZN		
5				3
Front Month (H3)				

ZF/ZN			
# 1 Long			
\$0.00			
Broker #1			
# 1 Short			

Market Price/			
Front Month			
ZF			
111	31.0	113	7.0

Today the market has moved such that our position becomes negative right from the start, and just keeps getting worse. We just go along, and enjoy our second cup of coffee. We are confident that our position will oscillate back to positive territory.

As the day progresses, our position becomes ever more negative. This is where progressive capitalization comes in: when our spread has reached a certain negative threshold, we enter with another long spread. In this way, when our position starts rotating toward positive again, we can pick off two wins instead of one. In this particular trade, our threshold to enter a second spread is

any position more negative than minus \$300. The ZF market hits 111.250 and ZN is at 113.005.

This gives us a net negative in spread #1 equal to minus \$328.125 (Figure 4).

**Figure 4: Spread #1 at Negative Threshold for Entry to Spread #2**

Fills #1 LONG				
	Long ZF	Short ZN		
5	111	31	113	7.0
Front Month (H3)				
Broker #1				
Fills #1 SHORT				
	Short ZF	Long ZN		
5				3
Front Month (H3)				

ZN/ZB				
# 1 Long				
(328.125)				
Broker #1				
# 1 Short				

Market Price/				
Front Month				
ZF		ZN		
111	25.0	113	0.5	

As spread #1 became more negative, we set up for entering into another spread, ready to hit the submit button as soon as our negative threshold is reached. We witness one of those exceedingly rare days when we have no slippage in either contract. So we are now the proud owners of two spreads, one at minus \$328.125, the other at \$0.00 (Figure 5).

**Figure 5:** Spread #1 and Spread #2 Just After Entering Spread #2

		ZF/ZN	
		# 1 Long	
		(328.125)	
		Broker #1	
		# 1 Short	

<b>Fills #2 LONG</b>				
Long ZF		Short ZN		
5	111	25	113	0.5
Front Month (H3)				
<b>Broker #1</b>				
<b>Fills #2 SHORT</b>				
Short ZF		Long ZN		
5				3
Front Month (H3)				

ZF/ZN
# 2 Long
\$0.00
Broker #1
# 1 Short

		Market Price/ Front Month	
	ZN	ZB	
111	25.0	113	0.5

The afternoon starts looking up: our net position rapidly starts to become positive, and soon we are nearing our win threshold for spread #2. Today our threshold for a win is anything more positive than \$400. As our position started to become positive, we set up to make the offsetting moves necessary to exit spread #2 with a win. The market soon hits our threshold, with ZF at 111.215 and ZN at 112.175, we hit submit on our trade screen. With the usual slippage, we get filled at 111.055 for ZF and 113.165 for ZN. That gives us a win of \$453.125 in spread #2 (Figure 6).

**Figure 6: Spread #2 at the Moment of Victory**

<b>Fills #2 LONG</b>				
	Long ZF	Short ZN		
5	111	25	113	0.5
	Front Month (H3)			
<b>Broker #1</b>				
<b>Fills #2 SHORT</b>				
	Short ZF	Long ZN		
5				3
	Front Month (H3)			

<b>ZF/ZN</b>				
<b># 2 Long</b>				
\$453.125				
Broker #1				
<b># 1 Short</b>				

<b>Market Price/</b>				
<b>Front Month</b>				
<b>ZF</b>		<b>ZN</b>		
112	5.5	113	16.5	

Once we record the win in spread #2, we erase all the fills, and spread #2 is completely blank in the spreadsheet. We now hold only one spread again, spread #1. The day ends with spread #1 positive, but not positive enough to take a win. We shut down the computer, record our trades as a

backup to make sure our broker accurately credits our account, and meet Trader Bob for a few hours of mountain biking.

The next few days of trading are a little boring, and our position only moves plus or minus a hundred dollars. Then on January 10, 2003, a full 4 days after we entered with spread #1, our position rapidly moves toward our win threshold. We set up to exit with a win, and sure enough we hit the threshold. After the expected slippage, we get filled at 111.21 for ZF and 112.180 for ZN, giving us a win of \$406.25 (Figure 7).

**Figure 7: Spread #1 at the Moment of Victory**

Fills #1 LONG					
Long ZF		Short ZN			
5	111	31	113	7.0	3
Front Month (H3)					
Broker #1					
Fills #1 SHORT					
Short ZF		Long ZN			
5					3
Front Month (H3)					

ZF/ZN					
# 1 Long					
\$406.25					
Broker #1					
# 1 Short					

Market Price/ Front Month					
ZF		ZN			
111	21.0	112	18.0		

Now we come to another trick of the trade. Because our system oscillates, whether we start with a long or short spread should not affect our results. So when we exit our last long spread with a win, we do so such that we simultaneously enter into a short spread to start the next trade. This is easy to do by simply doubling the contracts you use to exit one side. For example, in this case spread #1 consisted of 5 Long ZF and 3 Short ZN. To offset that to exit, we would sell 5 ZF and buy 3 ZN. But instead, we sell 10 ZF and buy 6 ZN. This exits long spread #1, and leaves us with a new short spread, with 5 Short ZF and 3 Long ZN (Figure 8).

**Figure 8: New Short Spread #1 After Exiting With Win in Long Spread #1**

	<b>Fills #1 LONG</b>			
	Long ZF	Short ZN		
5				3
	Front Month (H3)			
	<b>Broker #1</b>			
	<b>Fills #1 SHORT</b>			
	Short ZF	Long ZN		
5	111	21.0	112	18.0
	Front Month (H3)			

ZF/ZN
# 1 Long
Broker #1
# 1 Short
\$125.00

	Market Price/ Front Month			
ZF		ZN		
111	20.5	112	18.5	

You now have the tools you need to start paper trading. Keep track of your paper trades, plot them over time, and soon you will start to see the oscillation of your position over time.

### **How to Hold a Position Across Trading Months**

Since we are trading futures, contracts have a due date. You always want to be trading the “front month” contract, that is, the most active one. Remember that with bonds, the contract “months” correspond to quarters: **H** for quarter ending in March; **M** for the quarter ending in June, **U** for the quarter ending in September and **Z** for the quarter ending in December. So there are four contract months per year. These contract month symbols are followed by the year. So H5 is the symbol for March 2005 contracts, U5 means September 2005, etc. One or two weeks before the end of one quarter, the “front month” will switch to the next quarter. For example, if you are trading June 2005 contracts (ZF M5 and ZN M5), then around the end last week of May, you will want to switch over to September contracts (ZF U5 and ZN U5). When I get near the end of a quarter, I will monitor the volume of trading, and when the volume of trading in the old “month” is about equal to the trading in the new month, I’ll switch over. But you can switch over any time the new month starts trading. Timing is really not critical. You just want to be trading the new month before trading ends with the old.

Sometimes with the STARS system, you will be holding a position at the time when you need to go from one trading month to another (for example, switching from June to September), but you are not yet at a win threshold. What do you do? It is easy, really. Exit the old month (say June), and note

carefully your exact position (positive or negative) for ZF and ZN. Then re-enter the market in the new month. I usually do these trades within a few minutes of each other, but there is really no urgency. In your spreadsheet, add the positive or negative from the old month to the new ZF and ZN positions, and you are on your way. Let's look at an example.

Let's say you are trading June contracts with 5 long ZF-M5 and 3 short ZN-M5, and you need to switch to September, the next front month contract (remember that **M** is the trading symbol for June to **U** is the symbol for September). At the time of the switch, with the fills you got, your ZF M5 position was negative \$125 and your ZN M5 position was positive \$31.25. Note those numbers carefully. Now re-enter the market with 5 long ZF U5 and 3 short ZN U5. You are trading the exact same spread, but now are trading September contracts instead of June contracts. At first it will look like your position is \$0.00 with both contracts (for the moment ignoring slippage). But you know that is not true – your actual position as far as you are concerned is that your ZF is negative \$125 and your ZN is positive \$31.25. So in your spreadsheet, you subtract \$125 in the formula calculating your ZF position, and add \$31.25 to the formula calculating your ZN position. That's all you need to do to go across trading months.

### **Setting Thresholds**

Below is a chart of actual trades (same as Figure 2), *traded without any progressive capitalization*, over a period of about two years. You can create a similar chart by paper trading, and plotting your

trades over time. You can then continue the same chart when you make your first trade with real money.

In this case, the thresholds (dark green horizontal lines) were set at \$1000 above and below the zero point (dark blue horizontal line). The zero point is determined, like the thresholds, by paper trading and following the oscillation of your position over time.

**Figure 9**



This chart can be a bit confusing, so let's look at it carefully. *The black line plots the behavior of 5 short ZF and 3 long ZN over time.* First note again that the black line is completely market independent – it does not follow the ZF or ZN graphs at all. Do not be confused by this: this is not a plot of your trades – the graph is meant to show the *oscillation* created by ZF and ZN traded in a ratio of 5:3; your actual trades will vary between trading short ZF/long ZN and long ZF/short ZN. Again, this graph does not plot your trades – it just shows the behavior of 5 short ZF trades with 3 long ZN over time.

You can start paper trading any time, chosen randomly, just by getting in with 5 short ZF and 3 long ZN and start plotting it over time. Keep tracking the behavior of 5 short ZF and 3 long ZN – use this plot to see the oscillation and determine points of entry and exit. By entering a paper trade of 5 short ZF and 3 long ZN, you can over time generate a graph like the one above. Then you can see the oscillation, and determine your entry and exit points for your trades (paper or real). When the black line is going “down”, that would be good time to be trading the *opposite* of what is being plotted. That is why at the top of the oscillation, you would trade 5 long ZF/3 short ZN (the opposite of what is plotted), because at that point you expect the black line to go down. Again, at the top of the oscillation (upper horizontal green line) you would enter with a trade of 5 long ZF to 3 short ZN. On this particular graph, the red arrows indicate the exit/entry points. In sum, again, when plotting the behavior of 5 short ZF and 3 long ZN, at the top of the oscillation (upper horizontal green line), you expect the position of short ZF/long ZN to reverse, so you trade the *opposite* of that – that is, you enter with a trade of 5 long ZF/3 short ZN. At the bottom of the oscillation (lower horizontal

green line), you expect a trade of short ZF/long ZN to go up, so that is exactly what you trade – short ZF/long ZN.

Let's go through it one more time. In this graph, the win/entry points, based on the threshold of plus or minus \$1000, are marked by dark red arrows. After establishing your own version of this graph, enter the market (either on paper or for real) at one green line. When your position gets to the other green line, and exit with a win, and then re-enter in the opposite direction. The win in this case is \$2000 each time. The longer you paper trade, the more of the oscillation you will see. Paper trading for *at least* a month is probably a good idea. I paper traded for a full year before entering the market, but you need not wait that long if you are anxious to get started.

I have gotten many questions about this graph, and have revised the book and the graph to accommodate those questions. But the bottom line is that no matter how I present this graph, you have to study the material to understand it. Take your time; re-read the few paragraphs above; look carefully at the graph. We are plotting on paper one thing (behavior of 5 short ZF against 3 long ZN) so we can do another (actually trade). It is not that complicated, but just takes a little reflection.

Like most things in life, these thresholds (horizontal green lines) are a compromise. With a bigger negative threshold, you will need to enter into fewer spreads, and you will need a smaller reserve margin (fewer spreads, smaller margin requirement). But big negative thresholds also mean that you will miss out on any wins that you would have trapped using a smaller threshold to get into another spread, if your position reverses before the higher threshold is ever reached.

The same holds true for the positive threshold used to exit with a win. A smaller threshold allows you to trap a win before your net position reverses. Smaller thresholds also allow you to trap wins with smaller oscillations, and therefore the frequency of wins will be greater. But the magnitude of the wins will be smaller. If your position continues to grow positive, you would have been better off with a bigger threshold, allowing for a bigger win, even if those bigger wins come less frequently.

No magic number allows for setting the perfect threshold. Each trader must evaluate his tolerance for risk, his temperament in wanting more smaller wins or fewer bigger wins, and the amount of margin he is comfortable setting aside. Just keep these general rules in mind: smaller thresholds lead to more spreads, greater margin requirements, and more frequent but smaller wins; larger thresholds provide for fewer spreads, smaller margin requirement, and bigger but less frequent wins.

The bottom line requirement is to balance these offsetting costs and benefits to yield the greatest return on investment. As an oscillating system, STARS gives you the flexibility to set those parameters to meet your own personality and personal needs.

## Chapter 7

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### Getting Started: 6 Steps to Riches

Now that the mystery of how and why STARS can generate great wealth has been revealed, the most important question still remains: how to actually start trading? Theory, background, vocabulary and examples of actual trades are valuable only when coupled to practical instructions on how to get started. With that objective in mind, the step-by-step guidelines described in this chapter will help you apply the principles of STARS to your own trades in no time at all.

Novice traders may find that the quickest way out of the starting gate is to adhere closely to the suggestions below. Grizzled veterans might find that the material presented here offers a better alternative to previously tried and true methods. In either case, trading STARS is only as far away as the end of this chapter.

### **Step 1: Choosing a Broker**

A futures broker is formerly known as either a Futures Commission Merchant (FCM) or an Introducing Broker (IB). An FCM is a company that transacts futures business on behalf of commercial institutions, as well as for the general public. FCM's are registered on futures exchanges as member firms, and function to represent the interest of individual speculators and others who do not hold exchange membership. The most important services that FCM's provide to individual traders are placing orders, managing margin accounts, and tracking accounting records.

Introducing Brokers (IB) are persons or firms that accept futures orders but do not accept money. The IB is essentially a middle man for the FCM, and money deposited with an IB is actually made payable to the FCM. There are two types of these brokers: the *independent* IB and the *guaranteed* IB. The difference lies in their minimal capital and financial reporting requirements. The independent IB is subject to minimal capital requirement, but does not have the backing of an FCM, whereas a guaranteed IB is an introducing broker whose operations are guaranteed by an FCM. A guaranteed IB is considered by many to be more reliable because all of its accounts are backed by the capitalization of the FCM.

Given the many choices available to a trader, a broker should be chosen based on the following criteria:

*National Futures Association Record*

For maximum protection, you might want your broker to be an FCM; any broker's status can be verified through the National Futures Association (NFA). The NFA is an organization charged with the responsibility of regulating futures professionals, and every futures broker must be a member. The NFA establishes, audits and enforces the minimum financial requirements for member brokers, and enforces the ethical standards and customer protection rules of the Commodity Futures Trading Commission (CFTC). The NFA has disciplinary authority, and actions against a broker are made available to the general public. Before choosing a brokerage firm, you should definitely confirm membership in the NFA and check the broker's record to rule out any disciplinary sanctions. This information can be obtained from the NFA website at [www.nfa.futures.org](http://www.nfa.futures.org).

*Length of time in business*

Prudence dictates that you establish a relationship with a broker who has an established history. While no magic threshold of years in business can be defined, a good track record over at least five years seems a reasonable minimum.

### *Expertise in Internet-based trading*

With the STARS method, all trades must be executed electronically through the Internet. Most futures brokers today offer some form of on-line trading capability, but some are better than others. The majority of brokers will provide a free demonstration of their software on-line through their web sites.

While each trader will have individual preferences for the style and presentation of the trading screens, the software should include at a minimum:

- An order placement screen that is easy to use
- A order confirmation prompt that pops up before an order is actually placed to help mitigate against mistakes
- Readily accessible account information, such as account balance and current open positions
- Fill placements within 10 seconds
- Minimal down time for system malfunction

### *Commissions*

Commission vary by broker, and that can be used to your advantage. In spite of some protestation to the contrary, *commissions are negotiable*. Generally speaking, the higher the volume

of monthly trades, and the more equity (cash) in a trading account, the lower the commissions. A novice trader will not have much leverage for negotiating commissions, but a seasoned trader might be in a position to procure a more favorable rate. Depending on the level of trading, as well as the type of futures contract traded, commissions for electronically traded futures contracts will range from a low of \$5 to a high of \$20 per round turn. A round turn simply means that the commission charge includes the total fee for both entry and exit. Some commissions are quoted “per side”, which implies that a separate commission might be charged for the entry and exit. Pay careful attention to how the commission is quoted.

### *Accessibility and customer service*

The STARS method involves little telephone contact with a broker once the account has been set up. However, in the event of a system failure, either yours or theirs, you *must* to be able to access your broker instantly in case a trade needs to be executed during the failure. The broker should provide you with an order desk telephone number that will be answered quickly and efficiently so that minimal time is lost if the trade can not be executed electronically.

After each trade is executed electronically, you must confirm that the transaction was completed correctly: the trading software should be clear and unambiguous about the trade’s status. The trader is fully responsible for ensuring the accuracy of the trade. If a discrepancy is found, the burden is completely on the trader to advise the broker of the problem. For these reasons you will want to work with a broker who emphasizes customer service, and who is accessible.

*List of Futures Brokers*

The following is a partial list of futures brokers that can be used to begin a search. By no means does this list imply any form of recommendation or endorsement of any particular company. Each trader must perform his own due diligence in selecting a futures broker.

Lind-Waldock & Co.

1020 W. Van Buren St

Chicago, Illinois 60607

800-445-2000

[www.lind-waldock.com](http://www.lind-waldock.com)

Mann Financial

440 S. La Salle St

Suite 200

Chicago, Illinois 60605

800-621-3424

[www.manfutures.com](http://www.manfutures.com)

PFG BestDirect

190 La Salle St.

7<sup>th</sup> Floor

Chicago, Illinois 60603

800-656-0443

[www.pfgca.com/bestdirect.htm](http://www.pfgca.com/bestdirect.htm)

Xpresstrade

10 s. Wacker Drive

Suite 2935

Chicago Illinois, 60606

800-947-6228

[www.xpresstrade.com](http://www.xpresstrade.com)

## **Step 2: Subscribe to a Real-Time Data Provider**

A futures trader must have some mechanism by which he can receive current pricing information on the contracts being traded. Market pricing data can be received as delayed data or real-time data.

Delayed data can be behind the market anywhere from 10 to 30 minutes. Real-time data is provided

as it actually occurs, with a delay of only a few seconds. While using delayed data is possible, it is not recommended for trading STARS. It is best to know the actual market values whenever you make a trade. But use delayed data if that is all you have access to even if its not ideal.

Several firms now provide on-line futures pricing data in a format that allows the trader to customize how the information is received. The cost of using an on-line data service will vary significantly between providers, and will depend on how many different futures exchanges the trader wishes to access in real-time. Each futures exchange charges a fee for real-time access that is in addition to the charge for the data service itself.

Below is a partial list of on-line data providers. As with the list of brokers, this list is not an implied recommendation or endorsement of any particular provider. The trader should compare the costs and services and determine which is the best fit. Go to the listed web sites and see which provider best meets your needs.

#### ESignal

800-367-4670

[www.esignal.com](http://www.esignal.com)

#### PC Quotes

888-727-8683

[www.pcquotes.com](http://www.pcquotes.com)

Qcharts

866-842-5377

[www.qcharts.com](http://www.qcharts.com)

### **Step 3: Set Up An Infrastructure**

To trade successfully you should have at a minimum high-speed internet access, a recent model PC with sufficient memory and storage, and a tracking spreadsheet. With these in place you can concentrate on executing trades without being distracted by extraneous concerns.

#### *High-speed Internet Connection*

Optimally, a STARS trader should have at his disposal either a high-speed DSL, satellite or cable internet connection. Slower systems will certainly work, but are not ideal. A reliable backup system should also be in place, either a second DSL or cable connection, or at the very minimum, a dial-up connection, in the event that your internet service provider has a temporary systems failure. Avoid being cut off from the internet, because inevitably the failure will occur at the worst possible time.

### *Computer System*

A computer system with a *minimum* of 256 megabytes of memory (RAM) is required to trade STARS. Having sufficient memory is critical. Real-time streaming data, and the numerous order screens that you will want up and running, have a voracious appetite for memory. Storage will help handle the advanced graphics that will accompany most trading platforms.

### *Tracking Spreadsheet*

Your trading infrastructure should include a means of accurately and instantly calculating your net position from all trades in real time. See Chapter 6 for a detailed discussion of creating a tracking spreadsheet. As noted above, ***you can use end-of-day data or delayed data if you choose; but optimally real time data gives you better information when you actually want to make a trade.***

## **Step 4: Configure Your Desktop**

You did your homework, have in place an appropriate computer system, decided on your futures broker, and signed up with a real-time data service provider. You are now ready to configure all the components of your infrastructure to start trading.

### *Data Charts*

You will begin any trading session by accessing your real-time market pricing service, and since this provides the raw data for all trades, the critical information should be presented clearly. (You can use delayed data if you wish, but real time data is better for those moments when you actually make a trade). The two most useful charts to configure are the *time and sales chart* and the *tick chart*.

#### Time and Sales Chart

The time and sales chart provides real-time tick-by-tick market prices for each contract you are trading. Depending on how your screen is organized, the streaming data can be displayed like a ticker tape across the computer, or vertically in the format of a spreadsheet. The vertical presentation seems easier to read and follow, but either will work. The background and font color, and font size and style, can be adjusted to maximize your ability to pick off the data quickly.

#### Tick Chart

The tick chart summarizes market activity in a graphical format. By following market movement as a graph, a STARS trader can verify that any two contracts constituting a spread are indeed closely tracking each other over time. The graph can be set up to display market activity over

different periods of time, from one day to several months. As with the time and sales chart, the background and fonts can be modified for maximum visual effect.

### *Trading Screens*

An orderly and logical presentation of trading information on your screen is critical to ensure that every trade is accurate. While each broker will offer an order screen with a unique feel, all include the same essential elements required to place an order. Orders should be set up well in advance of making any move so that plenty of time is available to verify the accuracy and completeness of the order. Remember from Chapter 3 that every order must include: contract type and symbol, delivery month, number of contracts to buy or sell, direction of the trade (long or short), and type of order (market order in the case of STARS). All of that must be input accurately. Once you have become familiar with your broker's order entry system, executing trades will be easy.

### **Step 5: Select Your Market**

Chapter 5 discussed in some detail the criteria used to select markets suitable for the STARS method of trading futures. In addition to the requirement that two markets closely track each other in direction and magnitude, independent of gross market movement, a number of other considerations dictate what markets can be traded successfully.

*Volume*

Markets must have a sufficient volume of daily transactions to ensure that trades are executed immediately. The more people trading, the quicker a trade is filled, the less chance the market can move against you. More volume therefore translates into less slippage. The daily volume should exceed 25,000 transactions.

*Volatility*

Since two contracts that constitute a spread in STARS will move closely together, a reasonable degree of market volatility is necessary to create those moments when the two contracts move far enough apart to create profit potential.

*Electronic Trading*

The STARS method can be used only in markets that are traded electronically. Trading by means of a telephone connection with your broker is grossly inefficient, and will be costly in terms of slippage. Commissions for electronically placed trades are generally lower than phone orders.

## Step 6: Start a Test Trade

Trading futures as a business offers attractive advantages over running a traditional retail or wholesale operation. One of the greatest advantages is the ability to road test the business before actually having a grand opening. *Paper trading* is the description for testing a futures trading system without actually risking any money. Paper trading is a simple but essential element in building a successful trading system.

At any given moment, randomly chosen, note the current market prices of the contracts that you have selected to trade. Enter these prices into the spreadsheet as your “fills” for your paper trade. The only difference between this and an actual trade is that you risk no money. Check the market as frequently as you would if actually trading, and put the most current market data in the cell for “market price/front month” in your spreadsheet. In this way you can track your net position from the paper trade just like a real one. When you reach either a predetermined profit or the negative threshold for obtaining another spread, make the “trade” in your spreadsheet, and record the transaction. Continue paper trading until you are comfortable with the process, and until you are convinced that the trading system has the potential for profit.

A major shortcoming of paper trading is that because no real money is at stake, a trader’s emotions are rarely tested. More to the point, *success in paper trading does not guarantee success in real trading*. As such the Commodities Futures Trading Commission (CFTC) mandates, and rightfully so, that the following disclaimer be provided when discussing paper trading:

HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL, OR IS LIKELY TO, ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCE BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM.

ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM, IN SPITE OF TRADING LOSSES, ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE NUMEROUS OTHER FACTORS RELATED TO THE MARKETS, IN GENERAL, OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CANNOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS AND ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS.

Paper trading can be beneficial, but the results should be viewed with a large grain of salt. The smart trader will understand that using play money is far different than risking the real green. Futures trading has incredible potential for wealth generation, but trade with no illusions about the risks involved. **ONLY USE PURE RISK CAPITAL IN TRADING ANY SYSTEM, INCLUDING STARS.**

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