Technical Analysis as a Tool of Market Timing

By Jerry Rafferty

The need for businesses today to compete globally as well as domestically places a high burden on risk management teams to manage their growing exposures. As publicly traded markets become increasingly volatile, the need for portfolio managers to turn in good performances and maintain the confidence of their investors or risk management committees is critical. For the increasing number of traders utilizing the futures markets as an integral part of their trading and hedging strategies, the decision of when to buy or sell should become the most important part of their strategy. Once the market professional makes a decision to trade a commodity, a share of stock or any other financial instrument, good timing is generally the difference between success and failure.

"Right timing in all things is the most important factor."
---Hesiod, Greek poet, 8th century BC

Where does one find the knowledge of technical timing? Is there some mystical place that teaches timing? Is this a discipline that only floor traders and professional traders know about? Or, is it, as so many non-believers like to point out, that all chartists follow the same signals thus creating their own self-fulfilling prophecy? The answers to these questions start with the way in which trading decisions are generally determined.

Once a decision to enter a trade is made, the toughest part becomes when to buy or sell. Typically, traders call the usual suspects, the brokers, seeking a rundown on the market. A broker, who has spent all morning listening to his other clients, tries to explain what he has heard and offers some opinion. The problem with this process is twofold: First, does the person who is making the trading decisions possess all the important information and, if he does, will it help in determining whether it is a good time to buy or sell? Second, and most important, even if a trader is so prescient as to know all the facts, how can he be certain that this information has not already been factored into the price?

The Schools

During the last 100 years, two different schools of analysis have argued their own superiority. In the parlance of the Street, one of these schools is commonly referred to as fundamental analysis and the other, technical analysis. Each group seeks to answer a different question. The fundamentalist examines statistics and supply/demand data to search for the answer *why*. The technician interprets charts to determine *when*.

While my education had prepared me as a fundamentalist, my epiphany occurred shortly after my arrival on the trading floor. The conversion was not easy. Upon becoming a member of the Exchange in 1970, I was able to trade in the two principal contracts at that time, potatoes and platinum. Standing in the trading rings, I was faced with the daunting task of trying to figure out when to buy or when to sell. I prayed that my fundamental training would help find the answers.

I recall trying to divine the potential movement of potato prices. I compiled several years of the U.S. Department of Agriculture's potato crop reports, placing them side-by-side with the corresponding prices of the potato futures contract. My hope was that the crop reports would foretell the futures prices. Surprisingly, the findings showed that prices seemed to be a better indicator of what the final production numbers would be, rather than the other way around. Without knowing exactly what I was looking for, I started to read all that I could about price analysis.

The NYMEX trading floor in the 1980's. Mr.Rafferty was one of the first floor brokers to apply technical analysis to the energy markets.

The Awakening

It took years before the light bulb went on. Then finally, one day as I was reading what seemed like my millionth book on technical analysis, I saw a quote from the Scottish poet Thomas Campbell:

"...coming events cast their shadows before..."

Did that mean that price could actually help to foretell market direction?

Thanks to this bit of wisdom from a poet who wrote these words nearly two centuries ago, I suddenly realized that the price quoted in a publicly traded market was the distillation of all of the thinking on that particular market. Price incorporates everyone's thinking, including the hedger, professional trader, investor, the producer, end-user, and anyone else who might be in the market.

One of the more interesting stories to come out of the energy markets occurred in 1990. The crude oil market had been weakening since early in the year: the closing price in January 1990, for the nearby light, sweet crude oil future was $22.68 a barrel; in February it was $21.54; in March, $20.28.

In April, the press reported that Saddam Hussein was assembling troops near the Kuwait border. The news was largely ignored by the market. April's closing price was $18.54; May was $17.40; June was $17.07.

During the period, numerous press reports said that the U.S. Defense Department was monitoring Iraqi military activity. Still, prices stayed on a downward slope.

Then, one day in July, the market rallied and broke through the resistance of $17.52 -- that was a buy signal. It was not attached to any particular headline or political development, but there it was. The market rallied to $21-$23 during the month, and closed for July at $20.69. On August 1, the market opened at $20.90, the low for the day was $20.78. The invasion of Kuwait occurred the next day; prices in August exploded to a high of $32.35.

"...coming events cast their shadows before....."

Why did the market ignore the fundamental developments for such an extended period? Was supply so extensive relative to demand that it became the overriding concern? Was there an almost wishful belief that a move against Kuwait by Saddam would bring down the wrath of the nations on his head, and thus was the height of illogic? We will never know, and what difference did it make? At one point in July, the marketplace sent a clear

signal - for reasons unknown - that the short-term destiny of crude oil prices lay in the other direction.

Market patterns can be seen time and time again. They repeat themselves endlessly, and reveal themselves only to those with a trained eye.

Figure 1 charts the price of the May 1996 light, sweet crude oil futures contract from July 1995 through mid-April 1996.

The chart shows the anatomy of a bull market. During the first five months, from July into November, crude oil traded sideways in a fairly narrow daily range of $17.70 to $16.55. This was stage one.

Stage two occurred in early December, when the price of crude oil moved past $17.70 (a price last seen in September), and closed even higher. This started a rally, which carried it up to $18.55 on January 9, 1996 (Figure 1, line T3). This bullish trend ended on about January 10, when a decline in price broke the trend line.

This sell signal shows the fairness of the marketplace in broadcasting reversals or changes in trend. The ensuing sell-off (3) was not fatal to the overall bull market, it just returned to the original consolidation that prevailed from July to December (Line 7).

After almost a month of consolidation (pattern of 2 and 3), a new rally began, and was confirmed in the middle of February with the breakout above $17.45 (4), the declining trend line of the pennant, which also happens to be on the high side of the summertime consolidation.

After an initial spurt up, the market paused to catch its breath and, a week later, began an entire new leg up which exceeded the January highs (point 5). After almost another month of consolidation, the market once again broke out to the upside, continuing the bull trend.

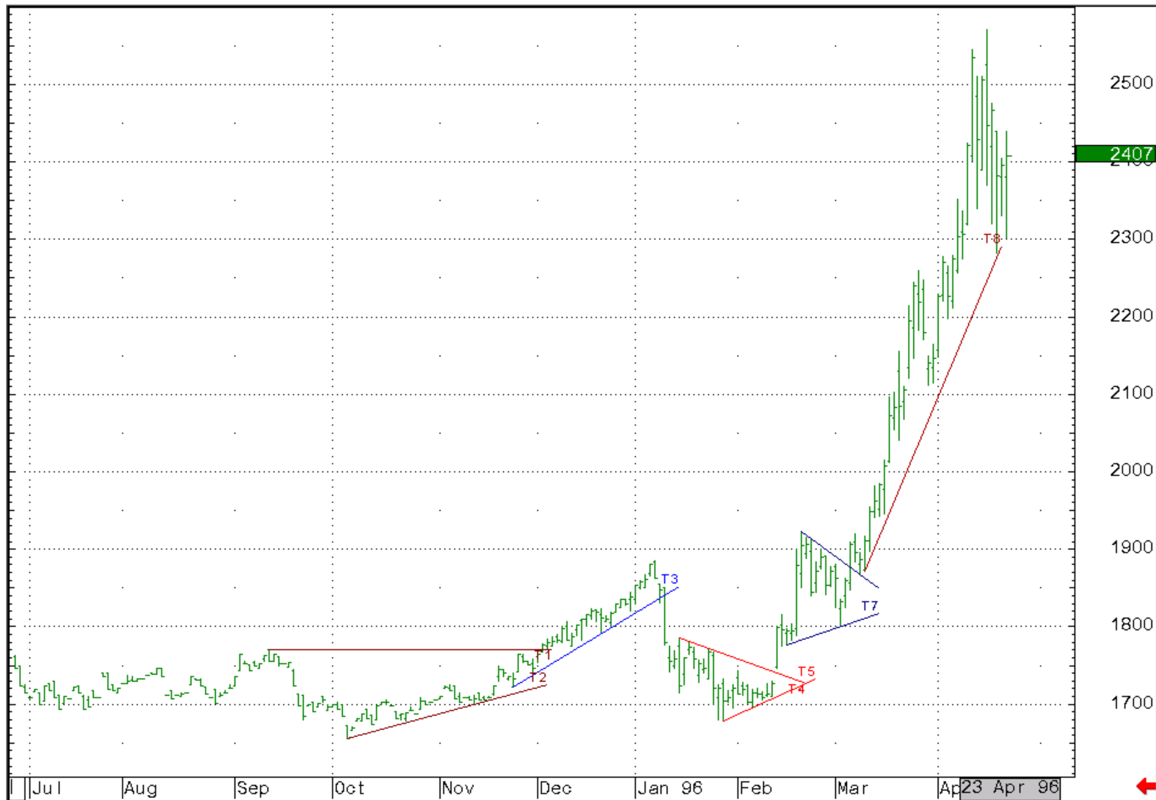

Figure I
NYMEX Division May 1996 Crude Oil Futures

The chart shows the utter fairness of markets. Markets clearly broadcast their signals to the trained eye. When a market breaks out, it almost always enters periods of consolidation. It can be compared to runners racing up stairs. At some point, they long for that landing, so they can pause and catch their breath.

Figure 2, which plots the daily activity in the April 1996 New York Harbor unleaded gasoline futures contract during the same period as the crude oil graph, is an even greater example of the fairness of the charts to broadcast or signal their next move.

This is a classic technical chart. The first trend line shows a gap high in early January, and the next day a gap down (point 3). This pattern, also called an island reversal, sent two major signals. One was a significant top, and- the other a significant decline. Yet, even with this overwhelming confirmation of a looming change in direction, the market was fair to those who missed the signal as it tried to rally the next day, couldn't break out higher, and collapsed from 58.40¢ to 54.55¢ over two trading sessions. Even this did not do real damage to the overall strength of the market. Notice the chart opens with the July

to November consolidation in a range of 52¢ to 56¢ with a mean of 54¢. The low end of the January consolidation returned to 54¢ where it developed into a perfectly formed

triangle, or pennant (point 2). There was a decisive breakout two-thirds of the way through at 55.15¢ (point 4), and then the next period of consolidation, at a higher level, was perfectly formed. (Lines 5 and 6).

When prices broke through the pennant formation In mid-February, it gave those who missed the first signal another chance to buy before exploding upward, adding a new leg to the bull market with an excellent trend; around mid-March, it rallied from 60.60¢ to 67.20¢ two weeks later. Markets give great trading opportunities to those who participate.

Figure 2
NYMEX Division April 1996 New York Harbor Gasoline

Figure 3 changes the lens on the camera to a weekly chart of the first nearby heating oil futures contract. This view is necessary to get a longer-term perspective of the major areas of support and resistance.

By eliminating the highs above 70¢ and the lows under 42¢, we can get a sense of where the bulk of the market activity occurred. This helps to get a longer-term perspective and see the more significant levels of support and resistance.

The one question these charts cannot answer is why prices moved on any given day.

That was also the question unanswered by the charts of potato prices that showed market trends running ahead of the crop reports. That part of the revelation was the hardest part

to intellectually overcome. How could you put your faith in something that doesn't tell you why?

Another problem for the budding technician is resisting the urge to go along with the crowd. It is so easy and popular to do what everyone else s doing. First you must realize that most people don't know what they are doing. I don't mean to be cynical here, but think about it: Has any market ever looked bad at the top or good on the bottom? To be a good trader requires discipline. The way to develop discipline is to see and plan what you want to do before it happens and only react to the noise if it is in line with your analysis.

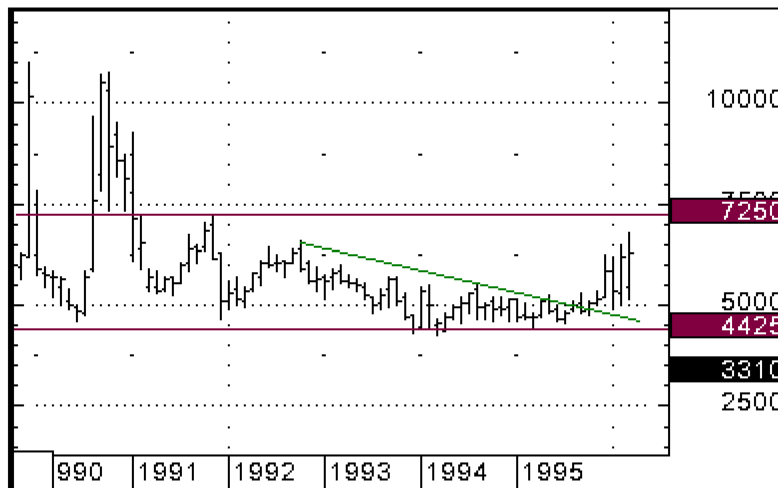

Figure 3
NYMEX Division Spot Month Heating Oil

Technical analysis is divided into a number of different theories and methodologies. The important thing to do is to find a method that works for your circumstances and temperament. A technician has to be able to make day-to-day decisions on where the support and resistance levels are in a variety of markets. For short-term indications, what was once generated manually as a point and figure chart has now evolved into computer-generated intraday bar charts. The point and figure charts enabled one to see those strata or horizontal levels of support and resistance. This information is invaluable when a decision has to be made intraday. Bar charts, on the other hand, are helpful in defining the more important support and resistance levels. Both should be used in combination to time and confirm decisions most effectively.

"Vision is the art of seeing things invisible."
--Jonathan Swift, 18th Century English writer

Technical analysis is an art, not a science. As an art form, technical analysis imposes a discipline that handles so many of the human tendencies in every trader. Without a clear picture of the chart formations, a trader with a losing position will start to invent and/or look for reasons to stay with that losing position. He has no frame of reference except that the position is losing money. He could use the "prudent man principle" and cut the

losses to 10%, but that is merely a money management technique, which has nothing to do with the price historical of the market.

A chartist, on the other hand, will get out if the signal that created the position fails. Critically, a pro knows in advance that so many of his decisions might be wrong, and using charts he can see where and when he is wrong and act accordingly. He does not let his emotions or wishes get in the way, and he does not let his losses get out of hand.

Technical analysis also helps to avoid the human tendency of taking profits too soon. It is amazing how so many people become afraid of losing what they have made, and then get out too soon. The fear of losing their profit is scarier for them than losing money. A chart helps to keep the technician in the wining position until the objective is met or until an opposing signal indicates a change. Human nature makes people hopeful when they are wrong and fearful when they are right. The way to approach entry and exit into the marketplace is to focus on the charts.

"The only sure things are death and taxes."
-- Old saying

There are no guarantees in life, but there are reasonable risks. Technical analysis is not a guarantee of success, but in the absence of better information or trading discipline, technical analysis offers hedgers and traders alike visual guidelines to make intelligent forecasts about price direction and risk.

"Take calculated risks. That is quite different from being rash. "
--Gen. George Patton.

Jerry Rafferty is a 30-year veteran of the New York Mercantile Exchange. He worked as an independent floor trader for 13 years, and in 1983, he established a floor to apply technical analysis to the energy markets, principally through his activities as a crude oil broker Mr. Rafferty owns his own commodity brokerage firm, and was one of the first brokerage firm that serves *as a floor broker and an introducing broker.*