Technically Speaking

October 2011
LETTER FROM THE EDITOR

The MTA Educational Foundation (MTAEF) will be cosponsoring an event marking the 160th anniversary of the birth of Charles Dow. On November 3, there will be a celebration at the Museum of American Finance. You can learn more at http://go.mta.org/117

Among the speakers will be Robert W. Colby, CMT. We have included an article he wrote several years ago about Dow Theory in this month’s newsletter. It is the first of several articles we are offering on the revered technical tool in this month’s Technically Speaking. Paul Shread, CMT, offers a more detailed look at several aspects of the Theory. We are also offering highlights of a presentation that Ralph Acampora, CMT, made in May 2009 on the Dow Theory. Ralph will be the Master of Ceremonies at the event.

We are continuing our efforts to provide members and affiliates with more information about ethics, not because that is a problem area within our organization but because it is what helps define us as professionals. Like the Dow Theory, the MTA’s Code of Ethics has also proven to be timeless. We would appreciate any suggestions you have on topics to cover in upcoming Ethics Corner articles. Please send them to editor@mta.org.

Sincerely,

Michael Carr

Mike Carr, CMT

October 2011

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DOW THEORY: AN INTRODUCTION AND UPDATED APPROACH
BY ROBERT W. COLBY, CMT


Editor’s note: The test results presented in this article may be out of date and are presented here as an example of the type of work that is possible with Dow Theory. The ideas merit further testing and could prove to be a very useful for technicians.

The Dow Theory is a major corner stone of technical analysis. It is one of the oldest and best known methods used to determine the major trend of stock prices. It was derived from the writings of Charles H. Dow from 1900 to 1902 published in the daily newspaper he founded, The Wall Street Journal. Dow's Theory was further refined by analysts and writers S. A. Nelson, William P. Hamilton, and Robert Rhea in the first few decades of the 20th century.

Seven Basic Principles of Dow's Theory:

1. Everything is discounted by the price Averages, specifically, the Dow-Jones Industrial Average and the Dow-Jones Transportation Average. Since the Averages reflect all information, experience, knowledge, opinions, and activities of all stock market investors, everything that could possibly affect the demand for or supply of stocks is discounted by the Averages.

2. There are three trends in stock prices. 1) The Primary Tide is the major long-term trend. But no trend moves in a straight line for long, and 2) Secondary Reactions are the intermediate-term corrections that interrupt and move in an opposite direction against the Primary Tide. 3) Ripples are the very minor day-to-day fluctuations that are of concern only to short-term traders and not at all to Dow Theorists.

3. Primary Tides going up, also known as Bull Markets, typically unfold in three up moves in stock prices. The first move up is the result of far-sighted investors accumulating stocks at a time when business is slow but anticipated to improve. The second move up is a result of investors buying stocks in reaction to improved fundamental business conditions and increasing corporate earnings. The third and final up move occurs when the general public finally notices that all the financial news is good. During the final up move, speculation runs rampant.

4. Primary Tides going down, also known as Bear Markets, typically unfold in three down moves in stock prices. The first move down occurs when far-sighted investors sell based on their experienced judgment that high valuations and booming corporate earnings are unsustainable. The second move down reflects panic as a now fearful public dumps at any price the same stock they just recently bought at much higher prices. The final move down results from distress selling and the need to raise cash.
5. The two averages must confirm each other. To signal a Primary Tide Bull Market major trend, both averages must rise above their respective highs of previous upward Secondary Reactions. To signal a Primary Tide Bear Market major trend, both the Dow-Jones Industrial Average and the Dow-Jones Transportation Average must drop below their respective lows of previous Secondary Reactions. A move to a new high or low by just one average alone is not meaningful. Also, it is not uncommon for one average to signal a change in trend before the other. The Dow Theory does not stipulate any time limit on trend confirmation by both averages.

6. Only end-of-day, closing prices on the averages are considered. Price movements during the day are ignored.

7. The Primary Tide remains in effect until a Dow Theory reversal has been signaled by both averages.

Further Helpful Elaboration on the Dow Theory

The whole point of this time-honored theory is the identification of major movements of the stock market. Such major moves take quite some time to unfold, and prices change by a considerable amount. Although not specified by the Dow Theory, the Primary Tide usually lasts a year to several years. Bull Markets typically run toward the longer length, while Bear Markets are shorter in duration but more violent in the velocity of downward price movement.

Victor Sperandeo has quantified Dow Theory definitions. (See Sperandeo, Victor, Trader Vic--Methods of a Wall Street Master, John Wiley & Sons, New York, 1991.) He found that 75% of Primary Tide Bear Markets declined from 20.4% to 47.1% in price. Also, 75% of Bear Markets lasted between 0.8 and 2.8 years. Bull Markets lasted much longer: 67% lasted between 1.8 and 4.1 years.

The Secondary Wave is a reaction or correction in the opposite direction to the Primary Tide. This intermediate-term Secondary Wave typically lasts from three to 13 weeks. It typically retraces one-third, one-half, or two-thirds of the preceding Primary Tide swing. Sperandeo found that 65% last from three weeks to three months, and 98% last from two weeks to eight months. Further, Sperandeo found that 61% retrace between 30% and 70% of the previous Primary Swing in price.

The Minor Ripple typically lasts only one day to three weeks. It is ignored as insignificant noise by the Dow Theory. Sperandeo found that 98.7% last less than two weeks.

A Line is a narrow sideways price range, extending ten calendar days or longer, the longer in time the more significant. The usual guideline to define a narrow range is approximately 5%, although William Hamilton classified a price range in excess of 11% from February to June 1929 as a Line. The Averages usually break out of a Line in the same direction as the Primary Tide. These breakouts are quite reliable. Although a Line can mark a reversal to a new direction opposite to the established Primary Tide, such reversal signals are much less reliable.
No matter how large a move in just one Average, it would not be sufficient to indicate a change in the Primary Tide unless the other Average confirmed. Non-confirmations (divergences where one Average exceeds a preceding Secondary Wave reaction price extreme on a closing price basis but the other Average fails to confirm) function only as warnings to be alert for the possibility of an actual signal ahead.

It is not necessary that both Averages confirm on the same day or even the same month, though some authorities believe the closer the better and become more wary as the days pass without confirmation. In the absence of joint confirmation by both Averages, there is no signal of major trend change--in fact, there is non-confirmation.

As a final important detail, the most minimal unit of price measure for the Averages (down to a penny, that is, 0.01, with no rounding off) strictly counts, when comparing the current closing price of each Average to its previous Secondary Wave extreme close.

There are six phases of the full bull through bear cycle: Skepticism, Growing Recognition, Enthusiasm, Disbelief, Shock and Fear, and Disgust.

1. **Skepticism.** In a major Bull Market, the first phase is accumulation of stocks at bargain prices by the "smart money" (the most knowledgeable and experienced investors). Meanwhile, the mass mood toward the stock market ranges from disgust to general skepticism. Stocks are depressed, and may have been for a long time. Still, some investors know that the cycle always turns up, even while fundamental business conditions still appear grim. The smart money begins to bid for out-of-favor stocks, which are selling at temptingly low bargain prices. Transactional volume, which has been low, starts to improve on rallies reflecting the entrance into the market by these forward-looking, patient investors.

2. **Growing Recognition.** The second Bull phase is known as the mark-up phase. Stock prices rise on increasing transactional volume. There is growing recognition that fundamental business conditions will improve. Stocks move up big. It is a very rewarding time to be in the market.

3. **Enthusiasm.** The third Bull phase is marked by popular enthusiasm and speculation. Sentiment indicators are near record levels. Fundamentals now appear extremely positive. There even may be widespread talk of a "new era" of rapid economic growth and never-ending prosperity. Stories of speculators making millions in the market flood the media. Everybody is optimistic and is buying, so transactional volume is extremely heavy. Late in this third phase, however, volume starts to diminish on rallies, as greedy buyers shoot their wads and become fully invested, usually on margin. Also, the smart money has reminded itself that "no tree grows to the sky" and all good things must eventually come to an end. Consequently, those knowledgeable investors, who bought early at wholesale prices, stop buying. Moreover, they begin the distribution phase, parceling out their stocks a retail prices. Smart selling intensifies as the greedy but unsophisticated mob snaps up overvalued stocks at absurdly high prices.
Late in this game, tell-tale bearish technical cracks start to appear under the "obviously" bullish surface. Technical divergences in stocks and groups are caused by irrational buying of the wrong stocks by unsophisticated players while the smart money liquidates the best stocks. Stocks may begin to churn and make little net progress.

4. **Disbelief.** The first Bear Market phase is marked by clear and widespread technical deterioration, even while almost everybody is still feeling extremely bullish. But when everyone who ever is going to buy has already bought, there is only one direction for prices to go—down. When buying power is used up, there is insufficient demand to absorb the accelerating distribution of stocks by the smart money at current prices, so prices have to move lower. An ever increasing number of stocks already have stalled out and formed potentially bearish chart patterns. But even as stocks break critical chart support levels, this clear bearish technical evidence is widely ignored by the uninformed masses. After all, fundamental business conditions are still rosy, and "buy the dips" is still the advice of the brokers and the dealers and their paid spokesmen in the media. The public hopes and believes that the "conventional wisdom" of all the highly-compensated Wall Street analysts, strategists and economists is right. Besides, the public has been told that they bought for the long term, and over the long term stock prices always go up. So, stock price declines are met with general disbelief. The public would buy more, if only they were not already fully margined. But they are. So they can't.

5. **Shock and Fear.** The second Bear phase is marked by a sudden mood change, from optimism and hope to shock and fear. One day, the public wakes up and sees, much to its surprise, that "the emperor has no clothes". Actual fundamental business conditions are not panning out to be as positive as previously hoped. In fact, there may be a little problem. The smart money is long gone, and there is no one left to buy when the public wants out. Stock prices drop steeply in a vacuum. Fear quickly replaces greed. Repeated waves of panic may sweep the market. Transactional volume swells as the unsophisticated investor screams, "Get me out at any price!" Sharp professional traders are willing to bid way down in price for stocks when prices drop too far too fast. The best that can be expected, however, is a dead-cat bounce that recovers only a fraction of the steep loss.

6. **Disgust.** The third Bear phase is marked by discouraged selling and, finally, total disgust toward stocks. Fundamentals clearly have deteriorated and the outlook is bleak. Prices move lower and lower as discouraged sellers liquidate holdings at distress prices. Even the best stocks, which initially resisted the downtrend, succumb to the persistence of the Bear. In the late stages of the disgust phase, downward price movement continues but the negative rate of change eventually begins to slow. Transactional volume, which was high in the panic phase, starts to diminish on price declines as liquidation runs its course.

Eventually, after everyone who is capable of selling has sold already, the Bear Market is exhausted. The discouraged public lament is, "never again."
After stocks are totally sold out, the stage is then set for the cycle to begin again. When everyone who ever is going to sell has already sold, there is only one direction for prices to go—up.

These phases are no secret. They have been written about by Dow and his successors for more than a century. These phases repeat endlessly, over and over again. Still, the public never learns. It is all too easy, it is merely human nature, to get caught up in the mass mood of the moment, lose all perspective and run with the emotions of the crowd. If you do not learn how to recognize the technical indications, and if you are not disciplined, the easiest thing in the world to do is to allow yourself to be pulled along by the mass mood, the "group think". But that is the way to be wrong at the critical turning points, to buy at tops and sell at bottoms, and to consistently underperform the market. To make money and outperform the market, we need to do the opposite. The Dow Theory tells us how.

**Indicator Strategy Example for the Dow Theory**

The venerable Dow Theory after a century has stood the test of time. Our tests of the Dow Theory against the actual historical data covering the past 101 years from January 1900 to February 2001 confirms the importance of this major contribution to technical analysis. We attempted to minimize subjectivity and judgment, and we added no other forms of analysis. We checked and rechecked our signals against available published sources. Based on trend confirming closing prices only for the Dow-Jones Industrial Average and the Dow-Jones Transportation Average, using only the Seven Basic Principles of Dow's Theory exactly as enumerated above, we found very positive results for both long and short signals.

At Arthur A. Merrill's suggestion (on page 84 of his *Behavior of Prices on Wall Street*, Second Edition, The Analysis Press, Chappaqua, NY, 1984, 147 pages), we multiplied by 0.7339 all closing prices for the old 12-stock Dow-Jones Industrial Average series prior to December 12, 1914, in order to make it comparable with the new 20-stock Industrial Average introduced at that time. (Previous compilers of Dow Theory signals failed to make this adjustment, throwing off their tabulations of hypothetical profits.)

Starting with $100 and reinvesting profits, total net profits, long and short, for this Dow Theory strategy would have been $864,494.25, assuming a fully-invested strategy, reinvestment of profits, no transactions costs and no taxes. This would have been 3920.98 percent greater than buy-and-hold. More than three out of four signals, 77.78 percent of the 63 closed trade signals, would have produced winning trades. Trading was inactive with only one trade every 605.5 days on average. Even short selling, which is included in this strategy, would have been profitable.
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Criticisms of Dow's Theory
Despite its impressive record, Dow's Theory has been subjected to its share of criticism. Because it merely identifies and follows major trends, it does not anticipate or forecast turning points, and it is always a bit late after the turning points. But given the difficulties of forecasting, this might actually be an advantage. The most significant criticism is that possible imprecision and subjective judgment in the interpretation of a Secondary Reaction could produce confusion as to the precise timing of Dow Theory signals. More precise specific definitions and trading rules can overcome this criticism.

The strengths of Dow's Theory far outweigh any weaknesses. Dow's Theory has proven itself over the past 102 years to be a useful, sound and profitable investment approach. Dow's Theory has made extremely important contributions to the development technical analysis. Technical students would benefit greatly from a thorough study of the Dow Theory, including the detailed historical performance of its signals. It would be time well invested.

New Frontiers for Dow's Theory
Considering its absence of evolutionary change, it is all the more remarkable that the Dow Theory has survived the test of time over the past turbulent century of unprecedented events, which included two world wars, a worldwide economic depression, and mind boggling triumphs of science and technology unimaginable in Charles H. Dow's day. Consider too that Dow created from scratch a predictive stock market barometer over a period of just a few years, with only a small quantity of primitive data and with no computer. If Charles H. Dow and his successors, S. A. Nelson, William P. Hamilton, and Robert Rhea, were alive today, they might extend their pioneering work with the help of vastly more data and power to analyze that data than they ever could have imagined.

Properly governed by sensible discipline to insure valid procedures and logic, the computer can handle complex data far more efficiently than our unaided mental capabilities ever could. It can quickly find patterns in reams of confusing data, patterns that the human eye could never see and the human mind could never grasp. Since it has no emotions, and it does not care if our pet hypothesis is accepted or rejected, the computer does not see signals that are not really there, and it does not ignore signals that are really there. We cannot match the computer's ability to be coldly calculating. It can help us to precisely define decision rules, with which we can then actually execute precisely defined actions. We must always remember, however, that because the computer lacks judgment and common sense, we must impose on it reasonable limitations, lest it spew forth more misleading noise than we already have to deal with.

New Dow Theory Hypotheses for Computer-Assisted Testing
Hypothesis One: We can use objective and precise analysis to identify a signal. Since distinguishing between Primary Tides, Secondary Reactions, and Minor Ripples is the biggest problem human analysts have with Dow's Theory, let us program our computer to define these movements by the criterion of maximization of profits.
At its most basic level, excluding any qualifications or subtleties, Dow's Theory requires an advance that rises above a previous high for a buy signal and a decline that falls below a previous low for a sell signal, for both averages. This simplest possible definition is similar to what has been called a Price Channel Trading Range Breakout Rule. (This is also known by futures traders as Richard D. Donchian's n-period trading rule and one of Richard Dennis's Turtle trading rules.) It is one of the oldest and simplest trend following models: we buy when the daily closing price moves up to a new n-period high; then we sell long and sell short when the daily closing price moves down to a new n-period low. This is a precisely definable model that leaves no room for doubt or fuzzy thinking. We can work with such a model.

With a little imaginative database manipulation and much persistence, we were able to analyze the daily closing prices of both the Dow-Jones Industrial and Transportation Averages simultaneously in a single test, rather than just one at a time, like we had to do in the good old days. Specifically, we created an artificial file in Microsoft Excel, where we copied the Transportation Average's closing price (multiplied by 100 to avoid handling decimals) into the field (column) normally reserved for the Industrial Average's daily Volume, then we copied this file into a data file management software program, DownLoader for Windows, by Equis International, Salt Lake City, www.equis.com. With this prepared data and MetaStock® for Windows software, also from Equis, we are able to search up to 32,000 different period lengths applied to the entire century's daily market data (more than 25,000 days) in a single test. Our exact testing program is printed below.

**Indicator Strategy Examples for Price Channel Trading Range Breakout Rules Applied to Both Averages**

We tested our Price Channel hypothesis twice: first, on the Dow-Jones Industrial Average alone; second, on both Industrials and Transports together, requiring joint confirmation. We found that Charles H. Dow was correct in stating that confirmation by both Averages is more significant and produces a better outcome than a breakout by one Average alone. Testing only one variable period length applied equally to both Industrials and Transports over the past 101 years, for a long-only strategy with no short selling, hypothetical net profits were highest at a 90-day period length. Profits would have been more than double those of the passive buy-and-hold strategy. But because this strategy did not approach the traditional Dow Theory's results, we keep trying.

The Equis International MetaStock® System Testing rules, where the current Dow-Jones Transportation Average (multiplied by 100 to eliminate the fraction) is inserted into the data field normally reserved for Volume (V), are written as follows:
Enter long: $C > \text{Ref}(\text{HHV}(C, \text{opt1}), -1)$ AND $V > \text{Ref}(\text{HHV}(V, \text{opt1}), -1)$
Close long: $C < \text{Ref}(\text{LLV}(C, \text{opt1}), -1)$ AND $V > \text{Ref}(\text{LLV}(V, \text{opt1}), -1)$
Enter short: $C < \text{Ref}(\text{LLV}(C, \text{opt1}), -1)$ AND $V > \text{Ref}(\text{HHV}(V, \text{opt1}), -1)$
Close short: $C > \text{Ref}(\text{HHV}(C, \text{opt1}), -1)$ AND $V > \text{Ref}(\text{HHV}(V, \text{opt1}), -1)$

**OPT1 Current value:** 90

**Hypothesis Two:** Period lengths should be allowed to vary according to the long or short nature of the signal. The statistical tabulations published by Robert Rhea in the 1930's and Victor Sperandeo in 1991 show that Bull Markets and Bear Markets have been much different in extent and duration. Therefore, look-back period lengths for buy and sell signals should not be the same. Furthermore, the requirements for each of the four possible market actions (buy long, sell long, sell short, and cover short) need not necessarily be the same. Therefore, we will allow these parameters to vary.

**Hypothesis Three:** Period lengths for each Average should be allowed to vary independently. Since the historical behaviors of the Dow-Jones Industrial and Transportation Averages obviously differ, with the two Averages even trending in opposite directions occasionally, let us allow different parameters for each Average.

Combining the three hypotheses, we completely cover all trading possibilities. We allow two separate period lengths for each of the four possible market actions (buy long, sell long, sell short, and cover short), one period length applied to the closing prices of the Dow-Jones Industrial Average (INDU) and a separate period length applied to the closing prices of the Dow-Jones Transportation Average (TRAN). With four possible actions (buy long, sell long, sell short, and cover short) and two price Averages to test, there are eight indicators ($4 \times 2 = 8$) to test for each model. We can vary the number of specific period length values (more generally known as parameter sets) for each indicator. As Louis B. Mendelsohn (Designing and Testing Trading Systems: How to Avoid Costly Mistakes, Mendelsohn Enterprises, 25941 Apple Blossom Lane, Wesley Chapel, FL 33544, www.proftaker.com) has pointed out, as we allow an arithmetic increase in the number of parameter sets (period lengths), the number of models tested increases geometrically. For example, if we allow three period lengths for our eight indicators, we test three to the eighth power $= 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 = 6561$ models. But if we attempt to add just one more period length to our test, we jump up to 4 to the 8th power $= 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 = 65,536$ models. Adding just that one extra period length overwhelms our present software resources, which limits us to 32,000 models in a single test. Although our computing power is great compared to the past, it is still limited for testing complex models.

Fortunately, we are not forced to limit ourselves to very coarse testing with only three broad parameters. As an alternative, we can break our testing into two halves, longs only and shorts only, testing each separately. This cuts the number of indicators in each test in half, from 8 to 4. With only four indicators, we can test thirteen period lengths in one pass, since thirteen to the fourth power $= 13 \times 13 \times 13 \times 13 = 28,561$ models. After we develop the long and short models separately, we can combine both models into one
long and short model. Then we can do some final fine tuning of that combined model, indicator by indicator. Because we break apart our testing into pieces, however, we may well miss the best combination of parameter sets and our findings may be sub-optimal.

After many iterations, here is what our search uncovered:

**Enter Long (Buy)** when INDU rises to a new 9 trading day high and TRAN rises to a new 39 trading day high.

**Close Long (Sell)** when INDU falls to a new 22 trading day low and TRAN falls to a new 166 trading day low.

**Enter Short (Sell Short)** when INDU falls to a new 22 trading day low and TRAN falls to a new 166 trading day low.

**Close Short (Cover)** when INDU rises to a new 36 trading day high and TRAN rises to a new 32 trading day high.

The results are enlightening. The asymmetry of these rules means that we do not always have a position. Note that we buy on a very sensitive, short-term price confirmation, only a new nine-day high for the INDU confirmed by a 39-day new high for TRAN. Thus, it is relatively easy to get a buy signal. In contrast, note that it is relatively hard to get sell and sell short signals: we have wait for the INDU to fall to a new 22-day low confirmed by the TRAN falling to a new 166-day low. Thus, this non-thinking model has correctly recognized the long-term bullish bias of a stock market that spends more time going up than down and has bigger rallies than declines.

Looking at the entire period from the beginning of January 2, 1900 to February 16, 2001, the above decision rules do a consistent job of precisely defining the buy and sell signals. There is absolutely no doubt as to what the signals are and when and at what price level the signals occur. If we could have executed this strategy over the past 101 years, we would have beaten the buy-and-hold strategy by a staggering 5637.10%. Total net profit would have been $1,233,454.40. This more complex trend-following rule was more active at one trade every 290.83 days on average. Of the 127 total number of trades, 69 or 54.84% were winning trades (69 of 127 total number of trades). [See our book for full trade signal details.]

The Equis International MetaStock® System Testing rules, where the current Dow-Jones Transportation Average (multiplied by 100 to eliminate the fraction) is inserted into the data field normally reserved for Volume (V), are written as follows:

**Enter long:** \( C > \text{Ref}(\text{HHV}(C,\text{opt1}),-1) \) AND \( V > \text{Ref}(\text{HHV}(V,\text{opt5}),-1) \)

**Close long:** \( C < \text{Ref}(\text{LLV}(C,\text{opt2}),-1) \) AND \( V < \text{Ref}(\text{LLV}(V,\text{opt6}),-1) \)

**Enter short:** \( C < \text{Ref}(\text{LLV}(C,\text{opt3}),-1) \) AND \( V < \text{Ref}(\text{LLV}(V,\text{opt7}),-1) \)

**Close short:** \( C > \text{Ref}(\text{HHV}(C,\text{opt4}),-1) \) AND \( V > \text{Ref}(\text{HHV}(V,\text{opt8}),-1) \)
OPT1 Current value: 9
OPT2 Current value: 22
OPT3 Current value: 22
OPT4 Current value: 36
OPT5 Current value: 39
OPT6 Current value: 166
OPT7 Current value: 166
OPT8 Current value: 32

Indicator Strategy Example with Just One Exponential Moving Average Crossover Applied to Both Averages

Hypothesis Four: While Price Channel is good at defining breakouts from horizontal trading ranges, often the market moves in a steeply sloping direction, either up or down. In these cases, at least, the use of sloping lines may be more productive for signal generation. An Exponential Moving Average crossover (see Exponential Moving Average) could be one example of a sloping line that could be applied to both the Dow-Jones Industrial and Transportation Averages to define a trend and a trend change signal.

The exponential moving average crossover rule would have been a profitable indicator over all time frames and, particularly, over the shorter ones. All lengths in the range of 100-days or less would have outperformed the passive buy-and-hold strategy. For traders with very low transactions costs, exponential moving average lengths around three days would have been best. Based on the daily closing prices for the Dow-Jones Industrial and Transportation Averages for 101 years from 1900 to 2001, we found that the following parameters would have produced a significantly positive result on a purely mechanical trend-following signal basis with no subjectivity, no sophisticated technical analysis, and no judgment:

Enter Long (Buy) at the current daily price close of the Dow-Jones Industrial Average when this daily closing price crosses above yesterday's 3-day exponential moving average of the daily closes and when the close of the Dow-Jones Transportation Average also crosses above yesterday's 3-day exponential moving average of its daily closes.

Close Long (Sell) at the current daily price close of the Dow-Jones Industrial Average when this daily closing price crosses below yesterday's 3-day exponential moving average of the daily closes and when the close of the Dow-Jones Transportation Average also crosses below yesterday's 3-day exponential moving average of its daily closes.

Enter Short (Sell Short) at the current daily price close of the Dow-Jones Industrial Average when this daily closing price crosses below yesterday's 3-day exponential moving average of the daily closes and when the close of the Dow-Jones Transportation Average also crosses below yesterday's 3-day exponential moving average of its daily closes.

Close Short (Cover) at the current daily price close of the Dow-Jones Industrial Average when this daily closing price crosses above yesterday's 3-day exponential moving average of the daily closes and when the close of
the Dow-Jones Transportation Average also crosses above yesterday's 3-day exponential moving average of its daily closes.

Starting with $100 and reinvesting profits, total net profits for this exponential moving average crossover strategy would have been more than $505 million, assuming a fully-invested strategy, reinvestment of profits, no transactions costs and no taxes. This would have been more than two million percent better than a passive buy-and-hold strategy. Short selling would have been profitable and was included in the strategy. Typical of other trend-following strategies, however, short selling would have been unprofitable in the unusually large bull market from 1980 to 2000. Note that this strategy is right on average only 40.36% of its signals, but the size of the average winning trade is 1.83 times the size of the average losing trade. This exponential moving average crossover strategy is very active at one trade every 6.35 days.

The Equis International MetaStock® System Testing rules, where the current Dow-Jones Transportation Average (multiplied by 100 to eliminate the fraction) is inserted into the data field normally reserved for Volume (V), are written as follows:

**Enter long:** $C > \text{Ref(Mov(C, opt1, E), -1)} \text{ AND } V > \text{Ref(Mov(V, opt1, E), -1)}$

**Close long:** $C < \text{Ref(Mov(C, opt1, E), -1)} \text{ AND } V < \text{Ref(Mov(V, opt1, E), -1)}$

**Enter short:** $C < \text{Ref(Mov(C, opt1, E), -1)} \text{ AND } V < \text{Ref(Mov(V, opt1, E), -1)}$

**Close short:** $C > \text{Ref(Mov(C, opt1, E), -1)} \text{ AND } V > \text{Ref(Mov(V, opt1, E), -1)}$

**OPT1 Current value:** 3

**An Evolutionary Future for the Dow Theory?**

Our purpose here is not to offer any particular fix or remake of the Dow Theory. We merely hope to stimulate thinking as to how the theory might be allowed to evolve. You might use ideas herein to launch your own research. You might find your own unique guidelines in harmony with your own particular objectives and limitations. You might develop your own individual variations and interpretations, all based on the actual historical evidence. There are a very large number of indicators in our book that could be used to supplement basic Dow Theory concepts.

Think of how a theory evolves. An observer ponders the data, forms a hypothesis, then tests the hypothesis. The hypothesis may be adjusted many times to better fit the data. The hypothesis also may change as new data becomes available. The hypothesis is allowed to evolve so that it describes observed phenomena better and better.

Merely pondering of the data without testing it could lead to erroneous hypotheses, misconceptions, false conclusions and general confusion. Things that seem like they ought to be true often are not when you rigorously test the hypothesis against the actual data. Testing helps us clarify our thinking. Without testing, we can miss subtleties in the data and evolutionary changes in the nature of underlying phenomena over time. In the absence of testing, delusions may persist. Obsolete beliefs may lead to flawed decisions.
Over the years, Dow's Theory has been subjected to misunderstanding due to imprecise definitions and the absence of continuous evolutionary testing. Change is constant, and no theory should be taken as etched in stone.

Our testing must be objective, precise, and unbiased. We must maintain strict logical control over what and how we are testing at all times. Our testing must make sense. This is where experienced judgment will never be obsolete.

There is a compelling logic to defining and continuously redefining through back testing a set of decision rules that would have performed best in the past. In fact, there is no acceptable alternative. You can theorize all you want, but without historical back testing you could be on shaky ground and not know it. An objective approach based on simulated performance against actual historical data simply offers the best hard factual backing available.

Robert W. Colby, CMT, is the founder of Robert W. Colby Asset Management, Inc., a New York registered Investment advisory firm. He also is a consultant to institutional and private investors and traders, providing technical analysis reports as well as custom research services and trading systems tailored to clients’ objectives. Clients include the most successful traders and investors in the world. Robert is the author of The Encyclopedia of Technical Market Indicators, Second Edition, McGraw-Hill, 2003, which has become the standard reference for indicator and trading systems design. Previously, at several large Wall Street firms, he worked as a proprietary trader, technical analyst, and fundamental analyst. He also was adjunct professor at New York University and New York Institute of Finance, where he developed new courses on technical analysis and market timing. Additional details are available on his Web site: www.RobertWColby.com.

Robert is a Chartered Market Technician (CMT) and has been a member of the MTA since 1980. He also supports the MTA Educational Foundation, which works to have technical analysis included in the curriculum of major business schools.
DOW THEORY: A CENTURY OF SUCCESS AND UNCERTAINTY
BY PAUL SHREAD, CMT

Dow Theory is considered the cornerstone of modern technical analysis – and yet more than a century of practice has yet to yield a definition that most market participants agree on.

It’s helpful to understand that Dow Theory was initially an economic theory developed in the pages of the Wall Street Journal by Charles Dow from 1899 to 1902. Dow’s theory was simple: if goods were being produced and moving through the economy, then it should show up in the action of both the Industrials and Transports, the makers and transporters of raw and finished products. If either the Industrials or the Transports weren’t confirming the direction of the other, then it was a warning that conditions might be about to change. And if both were headed substantially south, then the economy was likely to follow.

Simple enough, but a lot of trees have been felled trying to define when a Dow Theory trend change occurs. Dow and his followers, William Peter Hamilton and Robert Rhea, took the general view that a trend change occurred when one or both indexes failed to take out a previous high or low in the prevailing trend and then set a significant low or high in a new direction, signaling a trend change.

In its simplest form, every trend change begins with a correction against the prevailing trend; a trend change occurs when that correction resumes after a break and produces a new extreme in the new direction. So here’s the basic pattern when a bull market turns to bear: a correction, then a rally that fails to eclipse the old highs by one or both indexes, followed by new lows (Dow always used daily closing prices to define new highs and lows). Turning from bear to bull, the pattern would be a rally, a correction that failed to produce new lows in one or both indexes, and then another rally that took out the closing highs of the last rally.

The sticking point among Dow Theorists has been how to define those significant corrections that can mark the start of a new trend. The general rule of thumb has been a one-third to two-thirds correction of the previous major move over a period of three weeks to three months; basically, an intermediate-term correction. The Dow Theorist would then look for a countermove of the same depth and duration, followed by a new extreme in the new direction, before calling a trend change. But what appears to be a hard and fast rule often falls apart in reality: How would you classify a correction that retraced a quarter of the previous move over four months, or retraced most of the previous move in two weeks? That’s where Dow Theory has often been subject to uncertainty, judgment calls and lack of unanimity.

A second issue in calling major turns is Dow’s idea of a "line," which is an intermediate-term trading range in one or both indexes. A break out of
those trading ranges by both indexes is also considered significant, particularly if the breakout is simultaneous.

Martin Pring, author of the basic TA text "Technical Analysis Explained," has offered his own definition of intermediate-term Dow Theory moves. Pring focuses on time rather than price; he looks for a correction that retraces a third or more of the time of the previous move, looking for a minimum correction of one month. He ignores price entirely.

How has this performed over time? Using the data in Pring's book from the 1966 stock market top to the present, that approach has averaged about 13% a year, a few percentage points better than the market as a whole. Over time, that adds up, plus it also has the advantage of sidestepping the steep drawdowns of bear markets. Only once has Pring's approach been really wrong; it sat out or was short a 32% rally in 1949. It has otherwise been right about 80% to 90% of the time, with losses of 1% to 7% when wrong.

So why does Pring's system work so well? Here's one possible explanation: Because trends tend to last longer than anyone anticipates, Pring's system keeps investors on the right side of the major trend longer and avoids whipsaws. One of the criticisms of Dow Theory is that it is slow to recognize and acknowledge trend changes; that could also be viewed as a strength, as major trend changes are rare occurrences. There have been just four Dow Theory signals in recent years by this system: a buy signal in June 2003, a sell signal in January 2008, a buy signal in July 2009, and a sell signal in August 2011.

Interestingly, the recent sell Dow Theory sell signal contained both a sustained downtrend (the Dow) and a "line" (the Transports). The Dow (see below) formed a six-week decline from May to mid-June, followed by a one-month rally that failed to eclipse the May peak and then fell to new lows; no arguing with that signal.

The Transports (see below) is best interpreted as a six-month "line," although the April-June trading range also formed the five reversal points of what chartists call a "broadening top." The August 2 breakdown took out both the June and March closing lows, and the simultaneous breakdown by the Dow and Transports provided added confirmation. Both indexes may be
tracing out "lines" since early August, although once again the Dow is providing a much clearer picture.

Perhaps what is most amazing is not that technicians disagree over what constitutes Dow Theory buy and sell signals, but that the system remains viable after more than a century. And as long as goods are produced and move through commerce, Dow Theory will likely remain relevant to both the stock market and the broader economy.

Paul Shread, CMT, is co-author of "Dow Theory Unplugged: Charles Dow's Original Editorials and Their Relevance Today" (W&A Publishing, 2009).
With its roots in the nineteenth century, Dow Theory is among the oldest techniques in technical analysis. Some will argue that it has withstood the test of time and others will argue that it needs to be updated. Most debates in technical analysis will never be fully resolved to the satisfaction of everyone, but this one can at least be detailed and understood.

Charles Dow developed indexes to track the stock market action and the economy, and his first effort at this became the Dow Jones Transportation Average (DJTA). This average can be traced back to July 1884 and it originally included eleven transportation companies, nine of which were railroads. The original components of the DJTA were:

- Chicago, Milwaukee and St. Paul Railway
- Chicago and North Western Railway
- Delaware, Lackawanna and Western Railroad
- Lake Shore and Michigan Southern Railway
- Louisville and Nashville Railroad
- Missouri Pacific Railway
- New York Central Railroad
- Northern Pacific Railroad
- Pacific Mail Steamship Company
- Union Pacific Railway
- Western Union

Union Pacific remains a railroad and Western Union still exists as a company but in a more modern form. The Pacific Mail Steamship Company eventually grew to own more than 40 ships by 1920, and is today part of APL, which is a wholly owned subsidiary of Singapore-based Neptune Orient Lines, a global transportation and logistics company engaged in shipping and related businesses.

The other companies were merged out of existence or failed in some way. The current list of index components shows twenty companies with more familiar names:

- Alexander & Baldwin
- AMR
- C.H. Robinson Worldwide
- Con-Way
- CSX
- Delta Air Lines
- Expeditors International
- FedEx
- GATX
- JB Hunt Transport Services
- JetBlue Airways
- Kansas City Southern
- Landstar System
- Norfolk Southern
- Overseas Shipholding Group
- Ryder System
- Southwest Airlines
- UAL
- Union Pacific
- United Parcel Service

In the 1800s, railroads were the predominant form of transportation in the economy and it was easy to understand why Dow would think that they would offer a useful barometer of the level of economic activity. Now, it is sometimes argued, transportation stocks play a less important role in the economy. That may be true, but even in the days of the internet bubble, no one could argue that transports would cease to exist. A sock puppet would capture eyeballs and programmers would write software that allowed to Pets.com to sell dog food at insanely low prices, but UPS or FedEx were still involved in getting the product to the consumer. Those transport companies were also responsible for getting the hardware to run the web sites from the manufacturer to the vast server farms that were changing the world.

Over the long-term, the DJTA does seem to move up and down with the changes in the economy as Dow expected. The chart below shows that the average did move down during each recession over the past 35 years and the DJTA generally trended higher during economic upturns.
It is interesting to note that earnings and dividend growth have outperformed stock prices in the DJIA. That could be a sign that the stocks are undervalued by the investments community.

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<thead>
<tr>
<th>Growth Performance Measurement</th>
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<tr>
<td>Years</td>
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<td>------</td>
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<td>Last 1</td>
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<td>Last 25</td>
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Source: SrcStockCharts.com

The Dow Jones Industrial Average (DJIA) dates back to 1896 when Dow included 12 companies in the original form of the index. Over time the companies in this index have also changed, but they have always represented a significant percentage of market capitalization. The index now includes 30 companies and generally represents about a third of the total US stock market capitalization.

A long-term chart of the DJIA shows a price pattern that is similar to the DJIA. This is again what Dow expected to see and the Dow Theory was developed without the benefit of hindsight. It is an impressive accomplishment that Dow could understand the relationship and the importance of confirmation and divergence without the aid of even a long-term chart.

In the 1990s, as the economy was undergoing permanent changes according to many observers, some thought the NASDAQ would be a better indicator of the economy than the older Dow averages. The idea of substituting the NASDAQ Composite index for the DJIA in Dow Theory interpretation was discussed by some analysts.
A long-term chart of the NASDAQ shows that it follows a similar general pattern, but it also shows what appears to be more volatility.

Volatility is often confused with returns in an up market, which was most likely the case when the NASDAQ approached 5,000 in the first months of 2000. A study that was done comparing the performance of the DJIA to the NASDAQ Composite just before that time, however, disputes the idea that the total return of the two indexes was substantially different.

In “The Dow Jones Industrial Average: The Impact of Fixing Its Flaws” by John B. Shoven of Stanford University and NBER, and Clemens Sialm of Stanford University that was published in February 2000, it was shown that the indexes actually delivered similar gains when accounting for dividends. The paper can be downloaded at http://go.mta.org/118. One conclusion the authors reached is that:

Our interpretation of these results is that the superior performance of the Nasdaq over the DJIA for the period 1973-98 is greatly diminished once dividends are considered. In fact, taking account of the noticeably higher monthly standard deviation in the Nasdaq Composite’s total returns, a case could be made that the Dow actually outperformed the Nasdaq over this time interval. This simply emphasizes the point that stock price indices are very poor measures of the total return to investors over lengthy periods of time.

Their work also highlights the fact that there is nothing wrong with using the DJIA for analysis. Having withstood the test of time, the Dow Theory remains an important tool for technicians in the twenty first century.
VIDEO ARCHIVES: DOW THEORY BY RALPH ACAMPORA, CMT
REVIEWED BY MIKE CARR, CMT

On May 9, 2009, Ralph Acampora gave a presentation on Dow Theory as part of the MTA Web Educational Series. It can be found at http://go.mta.org/119.

The ideas of Dow Theory are well known to all technicians. They are also covered elsewhere in this month’s issue of Technically Speaking. Turning to the MTA’s extensive video archives, it is useful to watch Ralph Acampora run through the Dow Theory in a real time analysis.

Ralph begins with the basic concepts and delivers a comprehensive review that CMT candidates might find helpful. He also presents several historical examples that provide insight into how to apply Dow Theory.

It is important to remember that Dow Theory is used to spot very long-term trends in the market. Ralph points out that a primary bull or bear market, the trend that the theory is useful for determining, can last years and a secondary reaction could last months.

A historic chart of the bull market top from 2000 is instructive. This chart shows that the bear market actually began in 1999, and that is when several of the broadest market indexes did top. The blow off top which took place in early 2000 was largely confined to internet stocks that had come to dominate the S&P 500. Dow theorists were not fooled by that index moving higher.

Likewise, in early 2008 Dow Theory allowed technicians to spot another impending stock market top.
Ralph pointed out that Dow Theory is a useful sentiment tool. As market prices move, sentiment moves from one extreme to another and fluctuates between greed and fear. This can be summarized with the three C’s:

- Complacency characterizes investor feelings and actions at market tops.
- Concern tends to arise near the midpoint of a bear market.
- Capitulation is seen at the end of the bear market as fear drives selling which proves to be mistimed.

After more than 100 years, Dow Theory is still a useful topic to study and these very old ideas can still help traders make, and keep, significant profits.

Ralph Acampora is currently Managing Director – Market Analytics, for Altaira Wealth Management. He is a pioneer in the development of market analytics and has a global reputation as a market historian and a technical analyst, providing unique insights on market timing and related investment strategy issues.

Ralph was previously the New York Institute of Finance’s Director of Technical Analysis Studies. Ralph Acampora has taught at the institute for 40 years. Before joining NYIF, he was Director of Technical Research at Knight Equity Markets. Prior to this, he worked for 15 years at Prudential Equity Groups as its Director of Technical Analysis. Ralph Acampora is one of Wall Street’s most respected technical analysts and has been consistently ranked by Institutional Investor for more than ten years. He is a co-founder and Past President of the MTA. Ralph is also a CMT, a designation he helped create and which is now recognized by the National Association of Securities Dealers as the equivalent of a Chartered Financial Analyst (CFA).
LIBRARY UPDATE
BY BRUCE KAMICH, CMT

The MTA/MTAEF Library continues to grow at Baruch College. Last week Philip Roth, CMT, David Aronson, CMT, and I visited the Library with Baruch's Head Librarian, Arthur Downing. For those newer MTA members who might not know, the Library was rebuilt after 9-11 with purchases, donations from publishers and the generous contributions of many members. Keeping the Library in Woodbridge NJ at the MTA's "backup facility" was not ideal and became impractical when the MTA made the decision to return to NYC.

After negotiations and with the critical assistance of David Krell, the Library and the materials from the Foundation for the Study of Cycles were moved to Baruch College under a bailment agreement (a legal relationship where the physical possession of the property is transferred but the ownership is retained). Baruch has carefully catalogued and maintained the approximately 5,000 volumes now housed on their campus. The collection is stored in a room on the fourth floor of the Newman Library on 25th Street, just off Lexington Avenue. There was a small room adjacent to the collection that was originally the "archivist's room" which has been painted and additional shelving has been installed. The new shelving will give us room for additional purchases and donations that are coming. The room will be outfitted with a desk and computer workspace so MTA members, academics, and students can review materials and work next to the collection.

If you’ve never visited the Library, consider coming to the Foundation’s November 8th Fundraiser when Arthur Downing will conduct tours during the reception.
GLOBAL EMERGING GROWTH CAPITAL

Investment Courses For Professionals
A sample of a growing list of fundamental and technical courses is shown below. The courses are associated with global destinations and dates, both for open and private client formats. They are produced by various knowledge vendors throughout the world. Details can be provided by contacting NYIF.COM, or John Palicka (palicka@pipeline.com).

Taught by John Palicka CFA CMT

FUSION ANALYSIS-
This is a professional approach that blends fundamental, technical, behavioral and quant strategies.

EQUITY PORTFOLIO MANAGER-
Serious managers will utilize this course to analyze leading Wall Street valuation models and investment strategies for equities using fundamental, behavioral/technical and quant approaches, and then study how these are modified by the best performing equity portfolio managers to produce risk-adjusted excess returns.

INVESTMENT FUND SELECTION-
This is a must attend course for all professionals involved in the selection and management of third-party investment managers.

TECHNICAL ANALYSIS CMT 1-
A must attend course for investment professionals wishing to gain the CMT Level I professional qualification in Technical Analysis from the Market Technicians Association (MTA).

INTRODUCTION TO STEALTH TRADING USING FUSION, ALGORITHMS, AND DERIVATIVES FOR PROFESSIONALS-

Today, portfolio managers increasingly must use stealth trading in order to disguise their intentions and thus benefit from best execution.

ADVANCED CAPITAL MARKETS ANALYSIS
Spot, forwards, futures, swaps, options, and statistical issues are discussed in dynamic capital market strategies.

STRATEGIC GOLD INVESTING
Gold has been one of the very few assets to have created wealth in the past several years. Gold offers investment opportunities for investors, traders, and financial engineers.

GLOBAL SMALL CAP INVESTING
Global small cap stocks offer investors the ability to participate in the world’s future big winners.

PORTABLE WEALTH INVESTING
Portable Wealth (PW) management offers investment opportunities for wealthy investors and their advisors. PW can generate attractive risk-adjusted excess returns to traditional and alternative investments.

Instructor John Palicka CFA CMT is a top-ranked portfolio manager of Global Emerging Growth Capital (WWW.GLGEGC.COM) with over 30 years experience of managing $ billions. He has doubled client money, on average, every 4 1/2 years since 1980*. His high course ratings from major investment firms reflect clear interpretations and practical applications of complex topics; knowledge applied to examples and cases found in the current worldwide and GCC marketplace; his experience with specific situations actually encountered in his career and consulting contracts that parallel the learning topics. John has an MBA from Columbia University and also teaches these courses for leading training institutions, including The New York Institute of Finance (WWW.NYIF.COM).

* Past performance is no guarantee of future results.
MTA ANNUAL AWARDS

The MTA Award Committee would like to solicit your nominations for the MTA Award, as well as for the Service and Recognition Awards.

The MTA Award recognizes excellence in the field of technical analysis.

The Service Award recognizes contributions to our organization.

The Recognition Award recognizes contributions to the MTA and technical analysis by people who are neither members nor technicians.

Please forward your nominations via e-mail with the subject “MTA Awards” to BBands@BollingerBands.com.

INTERVIEW WITH FRED MEISSNER, CMT
BY AMBER HESTLA

How would you describe your job?
My current function is publishing The FRED Report. I do much of what I did at Robinson - Humphrey and Merrill Lynch, which is consulting with Financial Advisors and other clients, and write research. I also give several speeches and present at several events each year.

What led you to look at the particular markets you specialize in as opposed to another tradable?
In my research, I look at all tradable units. But, when I got into the business there were no ETF's, so the most efficient way to trade indexes was the futures markets. With ETFs, this has changed, which makes everybody's job more interesting as well as more complicated. Bottom line, I think this is a plus - as there are more hedging opportunities available to the average client, and more ways to balance a sector allocation.

Do you look at any fundamental or economic inputs to develop your opinions?
I do look at economic and macro indicators, but do not do fundamental analysis on individual stocks - there are plenty of people that do that already, with more resources than I have. There are many analysts I know and respect that do this work and I talk to them all the time.

What technique do you rely on the most? Can you describe this tool?
My main view, or theme, is that inflation will win over deflation - so I am a commodity bull and a bond bear longer-term. As these financial crisis sort of issues we are having start to fade, my concern is that rates rise - and some of the people going into bond funds today could be hurt. Technical analysis helps to manage risk, and I would have risk management points in my mind if I were investing in bonds today.

What advice would you have for someone starting in the business today?
My advice to people getting into the business today is a bit different from other's advice, I would imagine. It would be to study reading and writing, i.e.
to become literate. There are so many mathematicians in the big firms who cannot communicate their ideas. You can always find a math whiz to do your math for you, but it is not so easy to find a great communicator!

Fred Meissner, CMT, is the founder and President of The FRED Report. His professional career spans 27 years in the investment business. He has a multifaceted background encompassing market analysis, trading strategies/portfolio management and business development/relationship management in diverse environments. He is known as creative and intuitive thinker who leverages extensive knowledge of financial markets and economic trends to consistently generate significant profits. A team builder and leader who has a track record of successfully guiding groups towards organizational goals, Fred has high multicultural awareness and knowledge of international business practices acquired through extensive travel and education abroad.

Fred’s working career includes senior market analysis positions at The Robinson – Humphrey Company (at the time, the largest regional brokerage in the United States), Merrill Lynch and Co., Inc. (at the time, the largest national brokerage in the United States), and four years as President of the Market Technicians Association (the largest association of professional technical analysts in the world). While President of the MTA, that organization moved to a new structure encompassing the hiring of professional managers and successfully changed Sarbanes-Oxley to include the CMT (Chartered Market Technician) designation as an exemption to the Series 86 requirement for financial analysts. This effectively placed the CMT on par with the CFA (Chartered Financial Analyst), thus making technical market analysis and traditional fundamental analysis equal in the eyes of FINRA and in the securities laws of the United States of America.

Fred holds a BS degree in Business Administration (with a minor in Economics) from Trinity University in San Antonio, and an MA degree from The University of California, Los Angeles (UCLA) in Latin American Studies encompassing an interdisciplinary curriculum of International Business, History, and Sociology.

These questions and answers have been compiled by Amber Hestla, an independent market researcher. If you’d like to participate in a future interview, please contact her at hestlaresearch@gmail.com.
MTA LONG RANGE PLANNING COMMITTEE MEETING RECAP
BY TIM SNAVELY, CMT, CFA

The Long Range Planning Committee met on Saturday, September 10th in Rye Brook, NY - roughly twenty-five MTA volunteers and board members sharing their time to exchange ideas on how the MTA can improve. After focusing on key initiatives such as the CMT program and Internet strategy these past few years, the committee spent time this year on issues including advocacy, member services, organizational structure, and international initiatives.

The committee focused much of its time this year on the question of advocacy and, in particular, what our organization can do to advance the discipline and opportunities for charterholders. Sam Levine, CMT, CFA led a discussion which generated thoughts and actionable items on how technical analysis can be better positioned for success in the investment community and media especially.

We also discussed things the MTA can do for the membership as members address the media. We shared some recent successes, and discussed plans to secure the CMT designation’s place among top-tier accreditations for financial markets professionals. The MTA will be working toward increased acceptance of the designation among financial services firms, and a better understanding among all types of investors and media as to the role of technical analysis in investment decisions.

The remainder of the meeting was focused on member services, organizational structure and international initiatives. Our website has seen significant change in the past two years with new solutions for member-to-member dialogue via website forums, and tremendous growth in the online webcasts.

These products are the result of the hard work and planning of our team at headquarters – thanks team! Even as the website gains traction, we continue to work hard to ensure that our members are finding strong personal networking opportunities through local events and national seminars spanning the globe. Speaking of the globe, we also discussed the importance of a global perspective as we work to stay relevant in a world with increasing regulatory change across financial market centers.

Altogether, it was a great day of meetings yielding a robust exchange of ideas that will help the MTA staff set a course for this year and several years to come that should yield tangible benefits for members. Thanks to everyone for taking the time to share ideas and volunteer for the MTA!

Tim Snavely, CFA, CMT, is the current Vice President of the MTA. He graduated as the outstanding undergraduate student in finance from Emory University in 1997, and then joined the Investment Strategy team at Robinson Humphrey in Atlanta, GA.
UNDERSTANDING PUBLIC PERCEPTIONS ON THE MARKET WITH TECHNICAL ANALYSIS
BY MIKE CARR, CMT

A number of Nobel Prize winning theories start with the assumption that investors are rational. In the real world, many investment professionals discover through their daily interactions with investors that there are occasional bouts of irrationality. In discussing the markets with the public, it’s important to understand this since questions and firmly held beliefs could be rooted in that irrational behavior.

Rational investors most likely only exist in Modern Portfolio Theory. The argument makes sense intuitively. Investors will buy the portfolio that maximizes the potential returns while minimizing their personal preference for risk. But in the rule world, emotions like far and greed, infiltrate the decision making process.

Potential returns are generally defined by discounting the future cash flows of an investment back to its present value. In theory, some investments will be undervalued and these should be bought. Others will be overvalued and would be avoided, or sold short if the investor has sufficient risk tolerance to trade on the short side.

These ideas are based on the firm foundation theory, which was probably first well defined by John Burr Williams in his 1938 book, The Theory of Investment Value. Interestingly, the economist John Maynard Keynes had described the market in more speculative terms in his The General Theory of Employment, Interest and Money two years earlier.

Keynes argued that no one really knew what the future held for any company. It is entirely possible that a stock selling for $25 a share is fundamentally worth $45 a share based on sound assumptions related to future earnings and dividends. But, he noted, if an investor thought the market would value the stock at $15 in six months, no one should buy it at $25.

He famously simplified the stock market to a newspaper beauty contest. To win, contestants need to pick the six most beautiful pictures out of a group of 100, based on the results of a poll. In other words, the contestants need to pick the six pictures that most people will consider to be the most beautiful. Their own personal judgment isn’t as important as what they think other people will think.

In effect, this is what a market is. The value of something isn’t what one person is willing to pay, but instead it’s what the collective group of investors thinks others will pay. Buying means that the buyer thinks that someone else will place a higher value on the asset and their desire to pay more, so that they can in turn sell at an even higher price, will allow the original buyer to earn a profit.
Keynes’ model is sometimes called the greater fool theory of investing, and thinking about the internet bubble may help explain why. Someone would buy nobusinessplan.com because they intended to make 100% on their investment and sell it at the end of the day. If a shortage of fools developed, the market could crash, and that is exactly what happened.

For hundreds of years, the public has demonstrated that they will follow the crowd and invest when the timing may not be best. Keynes’ theory helps explain why sentiment measures can offer valuable insights to the markets.

Sentiment measures are one of the tools of technical analysis, a field that is itself based on three simple ideas:

1. Market action discounts everything.
2. Prices move in trends.
3. History repeats itself.

In sentiment indicators, the history being repeated is the unchanging nature of human emotion. Greed and fear drive the markets and they are measurable to some degree. A widely available is the American Association of Individual Investors (AAII) Sentiment Survey. This is a survey of individual investors which answers the question of how they feel about the market each week. Data from 1987 is available at [http://go.mta.org/123](http://go.mta.org/123). A small part of the survey results from 2000 is shown below.

<table>
<thead>
<tr>
<th>Date</th>
<th>% Bulls</th>
<th>S&amp;P 500 Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6-00</td>
<td>75.0%</td>
<td>1,441.47</td>
</tr>
<tr>
<td>1-13-00</td>
<td>59.3%</td>
<td>1,465.15</td>
</tr>
<tr>
<td>1-20-00</td>
<td>57.1%</td>
<td>1,441.36</td>
</tr>
<tr>
<td>1-27-00</td>
<td>53.7%</td>
<td>1,360.16</td>
</tr>
<tr>
<td>2-3-00</td>
<td>51.1%</td>
<td>1,424.37</td>
</tr>
<tr>
<td>2-10-00</td>
<td>41.9%</td>
<td>1,387.12</td>
</tr>
<tr>
<td>2-17-00</td>
<td>27.3%</td>
<td>1,346.09</td>
</tr>
<tr>
<td>2-24-00</td>
<td>41.4%</td>
<td>1,333.36</td>
</tr>
<tr>
<td>3-2-00</td>
<td>36.7%</td>
<td>1,409.17</td>
</tr>
<tr>
<td>3-8-00</td>
<td>58.3%</td>
<td>1,395.07</td>
</tr>
<tr>
<td>3-16-00</td>
<td>50.0%</td>
<td>1,464.47</td>
</tr>
<tr>
<td>3-23-00</td>
<td>65.7%</td>
<td>1,527.46</td>
</tr>
<tr>
<td>3-30-00</td>
<td>38.9%</td>
<td>1,498.58</td>
</tr>
<tr>
<td>4-6-00</td>
<td>45.8%</td>
<td>1,516.35</td>
</tr>
<tr>
<td>4-13-00</td>
<td>51.9%</td>
<td>1,356.56</td>
</tr>
<tr>
<td>4-20-00</td>
<td>63.7%</td>
<td>1,434.54</td>
</tr>
<tr>
<td>4-27-00</td>
<td>61.3%</td>
<td>1,452.43</td>
</tr>
</tbody>
</table>

As the stock market was peaking, there was preparing for its final leg higher, the bears outnumbered the bulls in February 2000. At the high, the majority was decidedly bullish, and they maintained their optimism as the decline began. The individual investor still seems to believe that the bigger fool identified by Keynes was just around the corner.
We see the opposite pattern in October 2002 as most individuals are bearish at the bottom. There was general despair and investors acted as if only a fool would be buying at that time. Similar behavior is observed at other tops and bottoms. At key turning points, the crowd will usually hold the wrong opinion.

Margin debt levels can also be used to monitor sentiment. Traders are likely to make market bets when they’re bullish and that would lead to an increase in margin debt balances. When traders are most bullish, the market may be at a peak. Sentiment indicators are not always contrarian – a contrarian indicator is one that prompts you to take action against the popular opinion. Insider trading activity measures the sentiment of corporate insiders, theoretically the best informed investors, and they will usually be on the right side of the market.

Technical analysis offers valuable insights into the mid of the client. Sentiment data can show the general attitude of investors, and it is often best to begin a conversation with an understanding of how they perceive the markets rather than explaining how markets actually work. The professional can easily work these tools into client presentations, and could even use them to help convert prospects to clients.

This article recently appeared in the National Introducing Brokers Association (NIBA) Journal, http://go.mta.org/122, and is reprinted here with their permission.
MTAEF TO HOST PANEL AT FMA ANNUAL MEETING IN OCTOBER

The MTA Educational Foundation (MTAEF) will be presenting four panelists to discuss integrating technical analysis within a Chartered Financial Analyst (CFA) track undergraduate finance course currently taught by Jerry Stevens, Professor of Finance at the University of Richmond. The session is part of the Financial Management Association’s (FMA’s) International Annual Meeting which will be held in Denver, CO on October 19-22, 2011.

Professor Stevens’ session, Integrating Technical Analysis with a CFA Undergraduate Investment Track, discusses building an undergraduate investment track in finance that integrates both the Chartered Financial Analyst (CFA) and the Chartered Market Technician (CMT) body of knowledge. The overall goal is to complement the college degree with a program that gives graduates a head start in earning the CFA and CMT designations. The CFA student program will be reviewed and followed by an in-depth discussion of the CMT student program. Panelists will first present an overview of the CMT designation and body of knowledge followed by an outline of how colleges and universities can build the CMT student program with the assistance of practitioners.

The Financial Management Association International (FMA) is the global leader in developing and disseminating knowledge about financial decision making. FMA’s members include academicians and practitioners worldwide. FMA serves the global finance community by:

- Promoting the development and understanding of high quality basic and applied research and of sound financial practices.
- Facilitating interaction and relationships among those who share a common interest in finance.
- Encouraging and supporting quality financial education.
- Sponsoring annual finance conferences that provide a chance to get together with colleagues, present current research and receive feedback, and observe the presentations of others.

For more information about MTAEF, its efforts to support technical analysis education, and how you can support such efforts, please go to www.mtaef.org.
ETHICS CORNER
BY MIKE CARR, CMT

This is part of a series of case studies related to the MTA Code of Ethics. If you have any questions you’d like to see specifically addressed, please email them to editor@mat.org.

QUESTION: Trudy Elliott Waverly is currently employed at ABC Investment Management. In her current position, she provides technical analysis of various markets and individual securities to the firm’s traders and frequently interacts with clients and prospective clients. She travels with the sales team on occasion and offers an overview of the firm’s short-term investment strategy. Follow-up with some of these prospects is required at times to address their individual questions, and client interaction is a large part of her job. Typically, Trudy believes that she spend about 75 percent of her time discussing market opinions with clients.

She has been offered a position and in the new position, she will be providing only written analysis. Sales reps and account representatives at the new firm will handle all external client contacts and the new firm will have different analysts working with traders. Her new position would come with a substantial pay raise and would allow Trudy to focus on the part of her career she likes best which is the analysis. She would be relieved to move away from sales and client communications responsibilities.

She accepts the new position. A month after she starts, the national sales manager tells her that the new firm would like to contact all of her old clients to let them know where she is now and requests a list of all those that she can remember. Trudy complies and within three months is communicating with many of her old clients again after they open accounts with her new firm.

Has Trudy violated any Standards of the MTA Code of Ethics by providing her new employer with a list of clients from her old firm?

ANSWER: It could easily be argued that Trudy did violate the Code of Ethics. Ethical Standard 6 of the MTA Code of Ethics says, “Members and Affiliates shall keep in confidence knowledge concerning the lawful private affairs of both past and present clients, employers, and employer’s clients.”

A client list of her past employer would be covered under this standard as information that she should hold in confidence. The new firm clearly asked for contact information of old clients, and not a list of people who might be interested in her work, which means there is no grey area in the request. The contact information of old clients belongs to her old employer and Trudy has violated the MTA Code of Ethics by providing it to her employer.

QUESTION: Given the same scenario as above, with the request from the new firm’s sales manager being for a list of people who would be interested in following Trudy’s work, would be a violation of ethics to include information about clients of her old firm?
**ANSWER:** When leaving her old employer, Trudy should not remove files containing account information and contact information of the firm’s clients. However, there will potentially be some clients that she has developed a personal relationship with and would choose to keep contact with. If this does not conflict with the employment contract she had with her old firm, she could provide information from personal contacts to the sales manager.

Ethics Corner is intended to be thought provoking and it is not to be considered an authoritative source on ethics or the MTA Code of Ethics. The opinions in this article do not reflect the official positions of the MTA, the MTA Board of Directors, or the MTA Ethics Committee. If a similar case were to be presented to the MTA Ethics Committee, this article in no way represents what an actual opinion related to these facts would be. This article is also not intended to be used as preparation for the CMT examination.
MOMENTUM DIVERGENCES CAN BE USEFUL
BY AMBER HESTLA AND MIKE CARR, CMT

Technical analysts often look at momentum indicators. Over the years there have been a number of tools developed that try to measure momentum. Most variations simply add complexity to a calculation that is rather straightforward.

Momentum measures the force that drives an object’s motion in physics, and that is the idea applied in technical analysis. Technicians are gauging the likelihood that a price move will continue by looking at momentum. Strong momentum usually signals that the trend, whether up or down will continue, and lagging momentum can be a signal that a reversal is near.

Dividing the most recent price by the price six months ago (or 26 weeks ago or 130 days ago) is the simplest way to calculate momentum. There are a number of other ways that momentum can be calculated. Each technique has advantages and disadvantages and different analysts will find some degree of value with each technique. For simplicity, we show momentum using the simplest calculation, the Rate of Change (ROC), in the chart below. This is a weekly chart and the ROC is simply the ratio of the current close to the closing price 26 weeks ago.

The FTSE 100 Index is shown with the ROC below the prices. Bollinger Bands have been added to the indicator. Bollinger Bands are a widely used tool in technical analysis. They are usually applied to prices in order to find overbought and oversold markets. To draw the Bollinger Bands, a moving average of the price is found, usually a 20-period moving average, and the Bands are then calculated by adding and subtracting two standard deviations of the average to and from the average. Prices are expected to move above or below the Bands about 5% of the time, since mathematically two standard deviations will contain 95% of the data. In the markets, prices do not follow the rules of a normal distribution and Bollinger Bands do not contain precisely 95% of the price action. But they do offer a useful indication of when something unusual is occurring in the markets.

Bollinger Bands are applied to the ROC indicator instead of prices in this chart, but the concept is the same. Movement by the indicator outside of the Bands is relatively rare. When that does happen, it is a signal that momentum has become unusually fast, and price momentum may slow down. It may also signal that a new trend has begun, or a trend is accelerating. Technical analysis, unfortunately, has no rules that offer 100% reliability. Instead of precision, technical indicators are intended to offer useful clues about the likely direction of the future trend.
Figure 1: The weekly chart of the FTSE 100 shows a bearish momentum divergence and the slowing momentum adds to the case for a trend reversal. (Source: Trade Navigator)

Technicians often rely on a preponderance of the evidence approach to the markets. Forecasts are based on what the majority of the indicators say, since some will often be inconclusive or even contradictory. In this chart, we can see that momentum has been slowing throughout 2011, as the FTSE traded within a relatively narrow price range. This is a bearish momentum divergence, a signal that prices have gotten ahead of themselves and there is no strong force to push prices higher. A bullish divergence can be seen at the March 2009 bottom, and traders following momentum were able to have confidence in the price rise that followed the divergence.

In the current case, we have momentum moving lower as prices stagnated. The ROC on the weekly chart is negative, a condition which is associated with large down moves. ROC recently broke through the lower Bollinger Band, just like it did in late 2008, near the price level that ultimately marked the bottom five months later.

Price patterns seen on charts often exhibit a symmetrical behavior, and that idea is also shown on the chart. The movement of the FTSE 100 in 2011 has mostly stayed within a 500 point range. Prices recently broke out through the bottom of that narrow range, and projected downward from the break, a target near 4950 can be projected from that pattern.

ROC has shown that prices were more likely to decline than rise after they broke out of the trading range. The recent break from the trading range may not bring a new bear market. Only time will tell how significant the decline will be. Technicians can watch ROC, which should offer the first clue when the next uptrend is at hand.

Amber Hestla is an independent market researcher. She is a frequent contributor to Technically Speaking. Her work has also appeared in, SFO, Technical Analysis of Stocks & Commodities, and Shares magazines.

This article was originally published by Shares magazine at http://go.mta.org/124 and is reprinted here with permission.
MTA SEEKING NEW HIRE: DIRECTOR, CMT STUDIES

The CMT Board of Governors (BoG) is pleased to announce the creation of the full time position of Director, CMT Studies. The immediate responsibility of this position is the development and integration of CMT study materials, including Learning Outcome Statements and a customized curriculum for our candidates. This full time staff member will also participate in coordinating the work of Subject Matter Experts in the preparation of CMT exams. This position will report to the Executive Director of the MTA, with a strong working relationship to the Chairperson of the BoG and the BoG itself.

The ideal candidate will have, as a minimum, a graduate level degree and at least 5 years of relevant teaching experience, with an emphasis on distance learning. They will have a strong, comprehensive knowledge of the financial markets, with the Chartered Market Technician (CMT) designation preferred, but not required. This individual must have excellent verbal and written communication skills; exceptional project management skills; excellent team building skills and ability to work, often remotely, in a team environment.

Interested individuals should submit their resumes with references to careers@mta.org by October 21, 2011.

Complete job description is listed to the right.

Title: Director, CMT Studies
Location: MTA Global Headquarters, New York City, New York
Salary and benefits: Competitive
Travel is required.

Job Requirements:

- Graduate degree required.
- CMT preferred, but not required. Must have strong, comprehensive knowledge of financial markets.
- At least five-years of teaching experience, with emphasis on distance learning, including exam construction, curriculum development and assessment.
- Excellent verbal and written communication skills.
- Exceptional project management skills.
- Excellent team building skills and ability to work in a team environment.

Responsibilities:

- Coordinating Subject Matter Experts in the preparation of CMT exams and preparation materials.
- Developing CMT study materials, including Learning Outcome Statements.
- Developing and distributing CMT customized curriculum.
- Developing and distributing CMT exam preparation materials, such as practice exams.