May 2011 Edition

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Letter from the Editor

This issue covers several basics of technical analysis. It's often helpful to step back from the complexity we create in our field and review the time tested ideas that technical analysis has been built on.

George Schade, CMT, offers a historical perspective on the widely used stochastic oscillator. He has painstakingly researched the origin of this indicator and shows us how it was developed and explains the history of the indicator. We often forget that there was time before computers and data was difficult to obtain, and very expensive when it was found. This article takes us back in time to those simpler times, which in many ways required deeper market analysis and a greater understanding of how prices moved.

Phil Roth, CMT, details his recent experience of teaching technical analysis at a university. Phil is a major contributor to the course developed by the MTA Educational Foundation, and those wanting to learn more about the Foundation’s work can stop by their workshop at the Annual Symposium, or they can contact the Foundation directly. The ready-made course is a comprehensive summary of technical analysis, and is a tribute to Phil and those he worked with on its development.

I am hoping to meet many of our readers at the MTA Symposium this month. My opinion is that this annual event is one of the most valuable benefits of membership, and judging from the fact that the event has sold out, I am not alone in that assessment. Please let me know when we meet what articles you’d like to see in upcoming issues of the newsletter, or email me at editor@mta.org.

Sincerely,

Mike Carr, CMT
Larry Katz

Very unexpectedly, and well before his time, Larry Katz passed away on April 11, 2011. Known to many in the Market Technicians Association and other professional organizations, Larry had spent nearly half his life in the industry, however his career spanned less than thirty years.

Like many industry veterans, Larry began his career as a financial consultant and worked with a number of major brokerage firms. While in this position, he began using technical analysis and discovered that it offered a far better way than traditional fundamental tools to service his client base. In the early 1990’s he was hired by a small Los Angeles brokerage firm as director of technical research.

In 1995 he began publishing his flagship news letter, Market Summary and Forecast, http://www.marketsummaryandforecast.com/. He found success in this endeavor, and was still publishing insights and trade recommendations sixteen years later.

Larry was a recognized expert in Elliott Wave theory, which he combined with a wide variety of momentum and sentiment indicators to help him determine his market outlook for stocks, bonds, and gold. He also looked to Fibonacci analysis as an integral part of his work, and said, “There is much more to Fibonacci than can be highlighted [in a summary] (just as there is much more to Elliott). The bottom line is that it is a critical tool in the overall analysis. Where Elliott provided the form, Fibonacci provided the symmetry.”

Friends recalled him as a zealot advocate of Elliott Wave, but two things differentiated Larry from many Ellioticians. One was that he was very successful. Too many technicians attempt to apply Elliott Wave without understanding the intricacies of the theory. Larry allowed his work to be objectively evaluated in real-time, and he was highly regarded by Timer Digest, an independent organization that monitors over 100 leading market timing models, ranking the top stock, bond, and gold timing according to the performance of their recommendations over various periods of time. In 2002 Timer Digest named him long-term timer of the year over a two year look back period, and they featured a portrait of Larry in a February 2002 issue. He was consistently ranked highly by that publication.

Second, Larry was a great communicator and was able to turn his detailed and complex analysis into easily understood language, such as his description of Elliott Wave which is clear and precise, and understandable by anyone:

The Elliott Wave Principle began as a classification of rules for defining and interpreting a relatively small number of patterns in the major stock indexes. The Elliott analyst’s basic objective is to ultimately (and correctly) count a complete market cycle of five waves up, followed by three waves down. In the 1930s, Ralph Nelson Elliott put forth the proposition that this “five waves up, followed by three waves down” was a form or pattern that occurred in the market, regardless of time. In other words, the basic pattern occurs over different scales of time. Thus, a five-wave rally, followed by a three-wave decline, would be classified as the first and second waves of a pattern of one larger wave degree. In that simple observation, Elliott argued that the market could be analyzed in terms of wave form and wave degree. The form was constant, regardless of whether the analyst was monitoring the movements of the market on an hourly, daily, weekly, monthly, or quarterly time scale (or even larger). Thus, Elliott suggested that the market expands and contracts according to a definable or set pattern.

These communications skills, and an affable nature which made Larry memorable, were often on display as he made frequent presentations to professional and public audiences. Professionals gained much from his encyclopedic knowledge of Elliott Wave and the markets; the general public benefited from his understandable delivery and tendency to make very specific calls. Larry tended to offer clear risk guidelines with a call, so individuals knew what would cause a change in his opinion. His audience never realized how much of his analysis was completed while enjoying a pint or so of ice cream as he scrutinized charts.

He could be found speaking at the Los Angeles Money Show or at the MTA Los Angeles Chapter, which he headed for many years. Larry formed a close alliance with other groups in the area, such as the Market Analysts of Southern California and the Foundation for the Study of Cycles, leveraging available resources to the benefit of many meeting and conference attendees.

His audience was loyal, seeming to never to tire of Larry’s analysis and stories. He was a regular guest with Aegean Capital’s (www.aegeancapital.com) Market Views TV (www.marketviewstv.com) with host Ike Iossif for over nine years. He had recently begun a regular series of interviews with Steven Vincent on The Bull/Bear report (www.thebullbear.com). These activities continued a pattern of regular appearances that he began in the 1990s, when he was a regular guest with Richard Saxton on the Los Angeles-based business channel (Channel 22) for several years prior to them going off the air in early 2000.

Over the years he entertained and educated such diverse groups as the Market Analysts of Southern California, the Omega user group of both Los Angeles and Orange County, and he travelled to see friends and speak at the MTA Atlanta Chapter. He helped organize and offered an educational workshop on Elliott Wave at the 1999 MTA annual conference which was held near his home in Manhattan Beach, CA. He was also a speaker in October 2004 at the inaugural conference of the American Association of Professional Technical Analysts.

It was there, to a group of experienced and knowledgeable professionals, where he boldly forecast that the S&P would move below its 2003-2004 low and he was even kind enough to provide a timeline, telling the audience that it would do so in 2008.

Larry gave a great deal of time and effort to his profession over the years, serving on the management committee of the MTA from 1999-2003 and on the Board of AAPTA from 2004 to 2006. In 2004 he worked with four others to form AAPTA, and still headed the membership committee. He had attended the AAPTA seminar in Los Angeles, enjoying time with friends and discussing market strategies, the weekend before he passed.

Larry’s last market forecast was published only days before he passed away. It shows the precision of his work:

![Market Summary & Forecast Table]

With precision, he explained the time frames, and the magnitude of the expected moves:

- **Short-term** - few days to a couple of weeks
  - Neutral-prices should remain within a 3% band
  - Bullish-prices should rise by 5%
  - Bearish-prices should fall by 5%

- **Medium-term** - one to three months
  - Neutral-prices should remain within a 5% band
  - Bullish-prices should rise by 9%
  - Bearish-prices should fall by 9%

- **Long-term** - Six months +
  - Neutral-prices should remain within a 7% band
  - Bullish-prices should rise by 15%
  - Bearish-prices should fall by 15%

http://www.marketsummaryandforecast.com/CurrentReports/Market_Explanation.htm

Larry was bearish for the short-term, but bullish for stocks over the long-term. That outlook offers a brief insight into how Larry lived his life. There were those inescapable bearish events that proved to be short-term, but he never lost his long-term bullishness, demonstrated in his love of family and technical analysis.

His days often included a break to attend his daughter Elizabeth’s soccer game. Our hearts go out to his family, Judy and Elizabeth, in this sad time.

AAPTA has created a way, for those interested, to contribute to assist his family with funeral and other expenses. Here are the particulars:

For any member wishing to contribute to help defray the costs of Larry Katz funeral, please send your contribution/checks to:

Chevra Kadisha Mortuary  
7832 Santa Monica Blvd.  
Los Angeles, CA 90046  
phone 323-654-8415  
fax 323-654-3917  
Please put all correspondence to the Attn: Yossi

If you have other questions, please contact AAPTA at admin@aapta.com.
Seeking Editor for Journal of Technical Analysis

The MTA Journal of Technical Analysis (JTA) Steering Committee, comprised of Julie Dahlquist, Ph.D., CMT, Michael Moody, CMT and George Schade, Jr., CMT, has created the job specifications for the open position of journal editor. Please see below for details.

Characteristics

- The editor should be a reasonably longtime Member of the MTA, preferably a CMT, who understands the objectives and goals of the MTA, has a strong appreciation for the mission of the Journal of Technical Analysis (JTA), and engenders good working relationships.

- The editor should have professional experience in writing and publishing. It is important that the editor appreciates the historical traditions in the field as well as be open and inquisitive about new approaches and developments.

- The editor needs to be someone who can appreciate a wide variety of approaches and techniques within the field of technical analysis. In addition, the editor must be fair and professional in dealing with a wide range of authors and reviewers.

- The editor needs to be well organized and able to handle the wide range of activities that accompany the role of journal editor. The editor must be able to devote time on a consistent basis to provide for a quality journal. In addition, the editor needs to serve as a promoter of the journal, both within the MTA and to a broader constituency.

- The editor and editorial board will have the journalistic independence to carry out the mission of the JTA.

Duties

- This process will be supported by the MTA Headquarter staff, the journal editorial board and a budget for external support.

- The editor will oversee the entire process of the production of the JTA. These duties include solicitation of manuscripts, securing reviewers, tracking the review process, communicating decisions and providing feedback to authors, overseeing the editing process, scheduling the publication of particular articles in particular issues, monitoring the printing and distribution process, and marketing of the journal.

- The editor should attend the annual symposium and board meetings on occasion. The editor serves at the will of the MTA Board of Directors and should make periodic reports to the board regarding the journal. The editor should make a minimum two-year commitment and may be retained only after review and approval by the MTA Board of Directors.

Those interested in applying for the position of journal editor, please email your résumé and a description of your history with the MTA and JTA to president@mta.org.

The mission of the Journal of Technical Analysis (JTA) is to advance the knowledge and understanding of the practice of technical analysis through the publication of well-crafted, high-quality papers in all areas of technical analysis. Features of the Journal include:

- Research articles accessible by and of special interest to practitioners.

- Survey and synthesis articles intended to provide the reader with an understanding of the current state of practice in a particular area.

- Clinical/case studies of high interest and benefit to the profession.

- Tutorials of interest to both academics and practitioners.

- Practitioner surveys.

- Reviews of business/finance books of interest to practitioners.

Sponsored by the Market Technicians Association (MTA), the JTA is designed to meet the needs of the JTA’s largely practitioner readership. Thus, articles published in the JTA must be of interest to or use to practitioners of technical analysis. In addition, articles must be written in a style that is accessible to the general MTA membership. The JTA editor assures that the topics published in the journal generally reflect the professional interests of the global membership of the Market Technicians Association.

Articles published in the JTA must demonstrate accurate and well-executed research. The JTA maintains high standards for article quality, using a double-blind peer review system. This double-blind review system, in which the identities of authors are not revealed to the reviewers and the identities of reviewers are not revealed to authors, is designed to produce objective and unbiased peer reviews.
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 (some listed below). Specific details can be provided by contacting them, or John Palicka (palicka@pipeline.com).

Taught by John Palicka, CFA, CMT

Read More...

The Origins Of The Stochastic Oscillator

by George A. Schade, Jr., CMT

This article answers the longstanding question who originated the %K and %D stochastic oscillator used by market technicians. The question has been debated for years. In center stage are the roles of C. Ralph Dystant (1902-1978) and George C. Lane (1921-2004). The %K and %D stochastic oscillator is commonly associated with Lane. For many years, Lane taught its use. While he cannot be solely credited for originating the indicator, he must be recognized for his life’s work popularizing it.

I. Background

Dystant owned and operated a school called Investment Educators which opened in 1948. The Chicago based school initially offered stock market courses but in the late 1950s began offering commodities courses. In Lane’s words, Investment Educators taught “charting, moving averages, and the Elliott Wave in a series of three classes” and “was the first school to teach a heavy course in Elliott Wave.” Dystant had great interest in the Elliott Wave Principle. He wrote a book entitled "The Fifth Wave - Stocks: A Critique: The Elliott Wave." Lane wrote about the origins of stochastics. In an article written for the May/June 1984 issue of Technical Analysis of Stocks and Commodities (TASC), Lane stated that "in 1954," he “was fortunate to join Investment Educators” working “for the owner, Ralph Dystant, and for the technical ‘guru’, Roy Larson.” When Mr. Larson retired, “Mr. Dystant became the guru for the stock market and [Lane] took the No. 2 spot teaching commodities.”

Lane described the origins of the %K and %D stochastic oscillator as follows:

“These were research days: 20 hour days, all calculating done by hand. The staff expanded to five. I shall not mention names, as they are all well-off financially, still trading, and don’t wish to be bothered.

In our research, our indicators were running all over the page, so we developed the technique of expressing them as a percentage of 100.

We developed %A, found it didn't work. We went on to research and to follow 28 oscillators. As we progressed through the oscillators we were developing, we expressed them as percentages as well; thus: %D, %K, %R….

In the sixties, we pioneered using the computer to test our oscillators.”

In May 1985, the MTA Journal (now the Journal of Technical Analysis) published an article written by Lane, in which he explained that:

“In 1954, I joined Investment Educators as a junior analyst….

After I joined the six-man, no-pay research staff, we discovered oscillators. We researched and experimented with over sixty applications, with the result that we found about twenty-eight that had predictable values. In charting our cumulative oscillators, we found they were running all over the chart paper. Soon, we had chart paper running all over the walls. So, we
struck upon the technique of reducing these oscillators to a percentage. We used the alphabet to differentiate one from the other: %A, %B, etc. Each one was reduced to a percentage indicator primarily so we could manage to keep them workable on the chart paper!

As a result of all the hard work (the 14-hour, mostly by hand, no-pay days), we decided that the most reliable indicator was %D for ‘% of Deviation.’ The basic premise of %D is that momentum leads price.”

Although Lane wrote that others - expressed in the collective “we” - had been involved in the invention of the stochastic oscillator, he made contradictory assertions. The 1984 TASC article was entitled Lane’s Stochastics. The 1985 MTA Journal article was entitled Lane’s Stochastics: The Ultimate Oscillator, called the indicator ”Lane’s Stochastics,” and contained one chart depicting “Lane’s Stochastics.”

An 80-page pamphlet with appendix and glossary "Written by George C. Lane” and copyrighted in 1986 by Caire Abrams Lane (Lane’s wife and widow), was entitled Using STOCHASTICS, Cycles & …to the Moment of Decision…. It profiled Lane as the “Originator of Stochastics.” Throughout the pamphlet and in several of its charts, the indicator was called “Lane’s Stochastics.”

In the handout to a 1999 presentation, Lane stated he was “known as ‘The Father of Stochastics.”’ The current website of the entity offering seminars on using stochastics, www.lanestochastics.com, states that Lane “originated” stochastics.

By 1999, the history of the oscillator had received attention. In 1986, in the first edition of his book Technical Analysis of the Futures Markets, noted analyst John J. Murphy wrote that “The Stochastic Process was invented by George Lane…” The updated and expanded edition published in 1999 modified this sentence to read “The Stochastic oscillator was popularized by George Lane…”

II. The STOCHASTIC PROCESS Document

Both the 1984 TASC article and the appendix to the 1986 Using STOCHASTICS, Cycles & …to the Moment of Decision… pamphlet share a remarkable element. The article and appendix are essentially the same, but more striking is that this material has been claimed to have been published as part of the Elliott Wave Principle course that Investment Educators sold in the 1960s. As will be seen, in this history, this document is seminal.

Market historian Gibbons Burke (1992) has written that the stochastic “indicator was originally introduced by Investment Educators as part of an Elliott wave course.” In 1995, Lane wrote in a presentation handout that “our 1950’s work….was written as a quick reference guide for students who had taken Elliott Wave and Stochastic courses from us…”

I have a copy of an 8-page document claimed to have been part of the course. Pages 1 through 6 are repeated almost verbatim in both the 1984 TASC article and 1986 appendix. Across the top of the other two pages is the title “Elliott Wave Principle.”

On page 1, the document is entitled STOCHASTIC PROCESS. Burke wrote that this document was the source of the name given to the %K and %D oscillator:

“According to Tim Slater, founder and president of CompuTrac, Inc., the name ’stochastic’ is a misnomer attached to the %D indicator by mistake. When Slater implemented the indicator into CompuTrac, he needed a name for it other than the cryptic %K and %D. The words ’stochastic process’ happened to have been handwritten on the original Investment Educators literature provided to him so he used that. The name remains.”

I spoke with Mr. Slater who confirmed this account. Two conclusions flow from the document.

First, the fact that Lane repeated the contents of that document in 1984 and 1986 publications and later partially in handouts for the 1995 and 1999 CompuTrac conferences shows he recognized that document as being the original source description of the %K and %D stochastic oscillator.

The second conclusion is that the document entitled STOCHASTIC PROCESS was first published in 1957, making that the year of the first articulation of the %K and %D oscillator. The 1986 pamphlet stated that the STOCHASTIC PROCESS document was copyrighted in 1957:

“How to Use Lane’s Stochastic originally published as The Stochastic Process © 1957 by George C. Lane, used by permission of author. Other portions of appendix © 1957 and 1982 by George C. Lane, used by permission of author.”

The reference to 1982 is likely related to the glossary in the pamphlet. The pamphlet had both an appendix (The Mechanics of Stochastics) and a glossary. The appendix reiterated the STOCHASTIC PROCESS document.

Analyst Nina G. Cooper (2004) wrote that stochastics “have been around since 1957,” further adding weight to this conclusion. Market wizard Jack Schwager (1996) wrote that the “stochastic oscillator was developed … in the late 1950s.”

I corresponded with Mrs. Caire Abrams Lane, Lane’s widow. According to her, Lane wrote the original materials explaining the rules for the methodology. This assertion explains why Lane claimed the 1957 copyright.
Because this document was part of a course sold by Investment Educators, some have inferred that Dystant invented the stochastic oscillator. The inference is not plausible because it overlooks the fact that someone else, even one associated with the school, could have originated the indicator and written the guidelines.

A. The Collegial Traders

Audio tapes and the handouts of Lane’s presentations in 1995 (TAG 17 Conference) and 1999 (TAG 21 Conference) shed light on the collaborative effort of a group of traders who created the %K and %D stochastic oscillator.

At TAG 17, Lane stated that he “and a bunch of others…were trying to find something to help us make a decision.” They found that the %K and %D stochastics were the best to determine momentum. “We didn’t know what we had, but it worked.” The group traded during the day and researched after the close.

At TAG 21, Lane related “there were seven of us” trading commodities at the Chicago Board of Trade. After the trading day ended, they returned to Investment Educators where “we looked for something, something to help us make decisions, when to buy and when to sell.” One evening, a member of the group, who was from Czechoslovakia, introduced his grandfather to the group. The grandfather suggested trying a formula he knew was used to determine how much limestone to add to a mixture to make steel. In Lane’s words, “so we took it, and massaged it, and changed it and that’s stochastics.” The claim made by some that a Czechoslovakian invented stochastics is incorrect. In his presentation, Lane spoke of “when we invented” and “we discovered” the stochastic oscillator.

The TAG 21 handout stated, “Early in his career, George spearheaded a research group that originated a number of technical indicators, most notably the Stochastic Process (Lane’s Stochastics).” The extent of Lane’s leadership is unclear, but it is clear that the group “originated” the oscillator to which Lane gave his name.

In his 1984 article, Lane commented, “One of the thrills of my life has been to find out that another of our members has been testing %D with an econometric indicator developed at [the] University of Michigan (where we perfected %D) and has found it to be predictive.” At TAG 21, Lane shed light on the connection between %D and Michigan. He described how “one of our friends” was surreptitiously “at night” using the “super computers” at the University of Michigan to test and back test formulas and data - “that’s how we researched” stochastics. When discovered, the friend was asked to leave, and he returned to Chicago with “all our research papers.”

Lane’s TAG 21 handout described the oscillator’s origin as a group effort (note the collective “we”):

“We…developed an oscillator that would show this tendency through the use of a ratio.

We optimized it, smoothing it twice. Then, we converted it to a (%) percentage oscillator.” (Underlining in handout.)

According to Mrs. Lane, Dystant did not participate in or support the group. However, Dystant became interested in what the group of traders had developed, and Lane taught the method while affiliated with Dystant.

B. The Slow Stochastic Oscillator

Lane taught %K and %D (called Fast Stochastic). The formulas are shown in the sidebar. Slow stochastic drops the %K line and makes the %D line the new %K line. The %D line is smoothed with a three-period moving average. Lane did not claim he invented the slow stochastic. His TAG 17 handout stated, “TAG developed Slow Stochastics and Tim Slater changed the name from The Stochastic Process to ‘Stochastics,’ which has stuck.” In that 1995 presentation, Lane related that a “crew” at CompuTrac had come up with the slow stochastic oscillator.

CompuTrac did not create the slow stochastic oscillator. According to Slater, CompuTrac programmed, but did not originate, the slow stochastic. CompuTrac added the slow stochastic oscillator to its database in 1978. It has been posited by others that Dystant developed the slow stochastic. Nonetheless, Lane did not claim he originated the slow stochastic oscillator.

III. Conclusions

This research leads to five conclusions:

1. George C. Lane was not the sole originator of the %K and %D stochastic oscillator.
2. The collaborative effort of several individuals who were futures traders, including Lane, led to the creation of the %K and %D stochastic oscillator. The others remain nameless. Reportedly, Dystant was not a member of the group.
3. The methodology of the %K and %D stochastic oscillator was first described in 1957.
4. Lane contributed significantly to the acceptance and popularity of the stochastic oscillator as a technical indicator.
5. The slow stochastic oscillator came later and was publicized after 1978. Lane did not claim he originated the slow stochastic oscillator.

While many terms in technical analysis are imprecisely defined, the terms fast and slow stochastic oscillators are well understood:
The stochastic oscillator compares where a security's price closed relative to its range over a given period. It is plotted as two lines: %K and %D.

The formulas for the %K and %D oscillator - Fast Stochastic - are:

\[ \%K = 100\times\left(\frac{C - Ln}{Hn - Ln}\right) \]

where C is the current closing price and H and L are the highest and lowest closing prices over the last n periods, and

\[ \%D = 100\times\left(\frac{H3}{L3}\right) \]

where H3 is the three-day sum of (C – Ln), and L3 is the three-day sum of (Hn – Ln).

In Slow Stochastic, the %K line is replaced with the %D line. A three-day moving average of %D becomes the slow stochastic %D line.

References

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- Lane, George C., 1985, Lane’s Stochastics: The Ultimate Oscillator, MTA Journal (now the Journal of Technical Analysis), issue 21 (May), pp. 37-42.
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George A. Schade, Jr., CMT, is an accomplished market historian. The author thanks Gregory L. Morris for editorial suggestions.
The MTA Educational Foundation has again been able to expand its university penetration in the Mid-Atlantic area. I made two presentations to students at the McIntire School of Commerce at the University of Virginia on April 2011.

Thanks to my friendship with Julian Robertson I was able to get an introduction to Carl Zeithaml, Dean of the McIntire School. Dean Zeithaml put me in touch with Prof. Stefano Grazioli, who invited me to speak to two of his classes. Through a very generous donation by Mr. Robertson, the McIntire School has a new facility, Robertson Hall, where my lectures were given.

The University of Virginia is probably unique in that it has two separate schools that offer graduate programs in business and finance. The Darden School grants traditional MBA's, while the McIntire School grants undergraduate degrees in business, as well as Masters of Science degrees in several areas of finance. Many of the graduate students at McIntire come from engineering and science backgrounds, rather than business. McIntire has several well-equipped financial laboratories, although I gave my lectures in regular classrooms.

The classes were 75 minutes, so I used an abbreviated version of the three-hour introductory lecture in technical analysis that the MTAEF put together last year. I am most interested in academic acceptance of technical analysis, so I spent relatively less time discussing trend and momentum indicators and techniques, and relatively more time discussing sentiment analysis (and how it relates to behavioral finance), supply/demand analysis (and how it relates to quantitative analysis), and intermarket analysis (and how it relates to economic analysis). I found great interest from both the undergraduates and the graduates, and, most importantly, from Prof. Grazioli. Prof. Grazioli immediately asked if I would return to speak to other classes, as soon as the fall 2011 semester. He is definitely interested in pursuing the notion of a full course in technical analysis; he will be consulting with the Dean's office and let us know.

The University of Virginia is in Charlottesville, Virginia, more or less in between the University of Richmond and Howard University in Washington, D.C., where the MTAEF has been teaching a full course in technical analysis for a number of years. This is an exciting development for us, since we find ourselves in the position of being able to use volunteers at two or three schools on one trip, reducing the time for volunteers and the costs to the MTAEF.

We will be looking for qualified MTA members to help us handle the teaching in those schools. If you are interested in helping or know of qualified people in the area who may be interested in helping, please contact the MTAEF office, at www.mtaef.org.

The MTAEF will be presenting at the MTA seminar in New York, during the lunch break on Friday, May 13, from 11:30 AM to 1:00 PM. Please come and hear what we have to say and offer your time and wisdom. If you are interested and unable to attend the seminar, we still want to hear from you. Email the office or me directly, at proth@millertabak.com.

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**Interview with Ken Tower, CMT**

*by Amber Hestla*

**How would you describe your job?**

To provide valuable research to portfolio and hedge fund managers in a way that helps them make money. In my spare time I look for new clients.

**What led you to look at the particular markets you specialize in as opposed to another tradable?**

We use a proprietary set of algorithms whose only input is price. This allows us to follow pretty much every tradable market of interest to our clients. Recently we have added the stocks that make up the Shanghai Composite and some new commodity based ratio charts (similar to relative strength charts).

**Do you look at any fundamental or economic inputs to develop your opinions?**

Knowing the fundamental and economic story helps to describe our opinions to clients and especially to the media.

**What technique do you rely on the most? Can you describe this tool?**

Although I grew up (in the business, that is) on Point and Figure charts, at QAS we rely entirely on our unique algorithms.

Ours is a unique system that doesn't use any of the standard technical indicators. Our algorithms have remained stable for well over 30 years. The success of our System is in the way our algorithms balance the two main elements of any system: Trend and Oscillator.

Portfolio managers have found the stability and predictability of the Ratings transitions produced by our system assist them in making...
profitable trades.

Can you share any longer-term market opinions?

We’re coming to the end of a remarkable recovery from the credit crisis. We expect the S&P to reach 1,400 this year, but the second half of 2011 is likely to see the beginning of a shift in leadership away from risk. More defensive sectors are likely to become the most attractive in 2012.

What advice would you have for someone starting in the business today?

Selling research is great, but the money is in money management. Find a way to get a job in that industry.

Ken Tower joined Quantitative Analysis Service, Inc. (QAS) as senior vice president in September 2009. After a foray into asset management and five years as chief market strategist with Charles Schwab & Company’s CyberTrader Inc. unit, Ken returned to the realm of institutional research where he spent the first 20 years of his career.

Ken has appeared in the financial media on many occasions. Including television appearances on CNBC and Bloomberg TV as well as AP Radio, MarketWatch Radio, Bloomberg Radio, and a variety of newspapers including the Wall Street Journal, Barron’s, and the New York Times. He has had articles published in the Journal of Technical Analysis along with Active Trader, SFO, and Stocks and Commodities magazines. He has been a guest lecturer at many CFA Institute member societies as well as various universities.

Ken is a former president of the Market Technicians Association (MTA) and currently serves on the Board of the MTA Educational Foundation. He earned his CMT in 1991 and was part of the MTA’s 2004 presentation team that resulted in the FINRA decision to recognize the passage of CMT exam levels I and II as a Series 86 exemption as they do with CFA levels I and II.

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.

Using and Understanding Point & Figure with Jeremy du Plessis, CMT, FSTA

On February 24, 2010, author and noted analyst Jeremy du Plessis made a presentation as part of the MTA Educational Web Series. His book, The Definitive Guide to Point and Figure, is an integral part of the CMT curriculum, and this webcast offers CMT candidates a valuable review resource. Members can view it at anytime in the MTA On Demand Video Archives.

This presentation was designed to introduce the concept of point and figure and help explain what makes the charts useful. The basics are well known to most technicians. It is a chart comprised of Xs and Os, although Jeremy also explains a less widely known technique that uses only Xs. There is no time scale on the chart. Each X or O represents only price movement, and price moves less than the box size are ignored.

Jeremy noted that P&F charts originated in the 19th century as a way to track price movements, during the trading day. Traders of the day noted that fractional price changes didn’t add much value to their record keeping, and they started using just the whole number. To make it easier to follow the market action, traders eventually started recording the prices in columns, which after a time led to the Xs and Os we now call P&F charts. Their evolution was logical, and patterns were noticed later, making the price record even more useful to traders.

Constructing a P&F chart is more complex than a traditional bar chart or a candlestick chart. Traders need to decide upon the reversal size and the box size, in addition to determining the frequency of the data. Tick data has become overwhelming to use in the chart construction, and Jeremy finds weekly and monthly data to be less meaningful. The added complexity of chart construction is worth the effort, in his opinion, because the P&F chart offers a lot of information with only a quick glance.

Jeremy has a number of unique strategies that can be applied to P&F charts. One of these ideas is that P&F charts can be constructed with an arithmetic or logarithmic scale. The log scale is used by making the box size a percentage change, rather than determining a number of points for the box size. He offered an example showing that log scaling has certain advantages, especially for long-term analysis or very fast moving securities. Arithmetic scales can be better for shorter time frames, or with linear price increases.

An advantage of P&F charts is that the signals are clear and unambiguous. Jeremy notes that the patterns will not always offer correct signals, but traders are never in doubt as to the action dictated by the chart. In his presentation, he offers examples of 3-box and 1-box chart patterns. He also reviews basic concepts that are important to remember, such as the idea that wider patterns tend to be stronger and
more reliable.

P&F patterns are very useful for spotting reassertion of control. In the markets, bulls or bears are always struggling for control. Uptrends result from bulls controlling the price move, down moves indicate by definition that bears are in control. At market turning points, the other side is attempting to reassert control and P&F charts help traders spot these occasions. In particular, catapult patterns are an excellent example of this idea.

Experience allowed Jeremy to share a potentially valuable piece of wisdom. He reiterated that signals are unambiguous, but that doesn’t mean you should take every signal. He feels that signals should put you in the right frame of mind, and other factors, such as trendlines can be used to confirm the P&F signal. Buy signals in the direction of the trend would have more significance to him than a sell signal that’s counter to an uptrend.

Trendlines, he showed, can be drawn in two ways. A subjective method connects relative extremes on a chart, while objective methods rely on 45-degree lines from significant bottoms or tops. The subjective method is recommended for 1-box charts, while the objective lines should not be applied to 1-box charts. A number of well-explained examples are included in the presentation, along with an illustration of what Jeremy calls internal lines. Examples include a chart of the S&P 500 from the 1930s, showing that the most recent bear market bounced off the trendline initiated at the 1948 low.

While time is ignored in P&F charts, changing the sensitivity of the box size does impact the presentation of the time horizon. This allows you to gain a shorter term perspective on a chart by decreasing the box size. Increasing the box size offers a longer term perspective. This is yet another unique insight offered in this short presentation. Other examples show how to calculate price targets from the chart. Traders will enjoy the examples explaining the calculation of precise risk-reward ratios. All the basic concepts of P&F charts, including how to apply relative strength analysis to P&F charts, are covered by Jeremy in the hour long video.

Those preparing for the CMT exam should take the time to review at least a few presentations in the MTA video archive. If they only have time to watch one, this is well worth the time. This is a clear and concise summary of the basics of P&F charts. Experienced technicians will benefit from the large number of techniques reviewed and the surprising number of new ideas that can be applied to charts which were first drawn in the 1800s.

Jeremy du Plessis, CMT, FSTA founded Indexia Research in 1980 and joined forces with Updata in 2001. He is author of The Definitive Guide to Point and Figure and has developed the Indexia proprietary tools within Updata Technical Analyst. Jeremy has decades of technical analysis experience teaches modules on the STA Diploma course in the UK. He manages the Technical Analyst programming team at Updata and works extensively with clients to constantly improve the system.

Moving Averages: Uses and Limits

by Mike Carr, CMT

This is a standard tool for market technicians, but a review of the basics can often be helpful. The moving average, long used as market timing tool, can also be used to reduce risk.

A moving average is a well known technique to smooth market price data and help to identify the trend. Among the earliest references to this time-tested strategy can be found in the classic introductory text, Technical Analysis of Stock Trends by Robert Edwards and John Magee. In the first edition of their book, in 1948, they wrote:

And, it was back in 1941 that we delightedly made the discovery (though many others had made it before) that by averaging the data for a stated number of days...one could derive a sort of Automated Trendline which would definitely interpret the changes of trend...It seemed almost too good to be true. As a matter of fact, it was too good to be true.

Edwards and Magee quickly abandoned their dream of trading from a Bahamian beach using only moving averages. Investment managers can find many potential benefits from employing moving averages, especially if they understand the limitations of this tool.

An average is “a single value (as a mean, mode, or median) that summarizes or represents the general significance of a set of unequal values.” The value is calculated by adding the values and dividing that summed value by the number of items in the sample. An average is often associated with a fixed sample of data. In the stock market, prices change over time and the average can be taken over any consecutive period of price changes. This is a moving average, where the sample progresses forward in time and the divisor in the calculation remains fixed.
The moving average is designed to smooth the short-term trends within the price data and help the analyst to spot the longer-term trend. By averaging recent price action, the volatility of the moving average will be lower than the action seen in the raw price action. In this way the moving average acts as a filter of market activity.

Another function of the moving average is to illustrate the direction of the trend by observing the latest position of the price relative to the moving average. If the most recent price is above the moving average, most analysts define the market as being in an uptrend. A downtrend occurs when the most recent price is below the moving average.

Figure 1 provides of an example of a price chart with a moving average. The prices are shown as bars – the top of each bar represents the highest price for that time period; the bottom marks the lowest price over that time; a small horizontal tick mark on the left of the vertical line signifies the opening price and a small tick mark on the left is at the level of the closing price. When the bars are above the solid line, an uptrend in prices is in place. A downtrend exists when the bars are below the smooth line. Also note that the line representing the moving average is much smoother than the price action.

![Image of price chart with moving average](source: TRADE NAVIGATOR)

To calculate a simple moving average, the prices are summed for the desired time period and that sum is the divided by the number of periods selected. Finding a five-day moving average would require summing the five most recent closing prices and dividing the total by five. Any number of time periods can be used and any timeframe can be selected. Popular settings include the 50-day time period, 13-weeks, and 10-months.

Market analysts have long employed moving averages, and many have attempted to refine this simple tool with varying degrees of complexity. In addition to the simple moving average, analysts can employ exponential, weighted, or adaptive averages. All, to some degree, overweight or underweight part of the data as opposed to the simple moving average which equally weights all data.

The exponential moving average (EMA) overweights the most recent price data, which means it tries to stay closer to the price action. One of the most noted flaws of the moving average is that it significantly lags behind the price in trending markets. The result of the lag is delayed signals to buy or sell after the market has experienced a trend, dooming the investor relying solely on moving averages to miss tops and bottoms. The EMA is designed to minimize the lag between the current price level and the moving average, theoretically making it possible to take action on trend reversals in a timelier manner. The formula to calculate an exponential moving average is:

\[
EMA = (Weight \times Close) + ((1-Weight) \times EMA_y)
\]

where Weight is the smoothing constant selected by the analyst
Close is the closing price of the security being studied
and EMA_y is the value of the EMA from yesterday

The weight is calculated as \(\frac{2}{N+1}\), where N is approximately equal to the value of the time period one would use in a simple moving average calculation. A common weighting value is 0.181, which is close to a 20-period simple moving average; or 0.10, which is approximately a 10-period moving average.
Other types of weighted moving averages are developed using this same principle. They either overweight or underweight selected data points. A front-weighted moving average gives more importance to the more recent data. Similar to the EMA, the intent of this formula is to decrease the lag present between prices and the moving average, especially at trend inflection points. As an example, a front-weighted moving average could be calculated as:

\[(2C1 + C2) / 3\]

This formula gives twice the weight to the most recent closing price. The divisor in this calculation is always equal to the number of data points used in the numerator, accounting for the overweighting.

Some academic research has found that stock prices exhibit mean reverting behavior over the short-term, which means that short-term gains are often almost immediately reversed by short-term losses and short-term losses are often followed by short-term gains. A back-weighted moving average attempts to compensate for this tendency by underweighting the most recent data. An example of this would be:

\[(C1 + 2C2) / 3\]

Other refinements to the moving average include adapting the weighting factors in the calculation to account for volatility. The rationale for this adjustment is that this would mean that the moving average would be further from the current price in volatile markets since the factor would be higher as price changes accelerated in a trend. This would mean that those using the moving average for trading signals would allow winners to run. As a trend comes to an end, prices tend to enter into a consolidation period. At this time, the volatility factor should decrease and the moving average would move closer to the current market action, in theory allowing the trader to keep most of the gains captured during the trend.

Robert Colby tested hundreds of technical analysis tools in *The Encyclopedia of Technical Market Indicators*. He concluded, “Although the Adaptive Moving Average is an interesting newer idea with considerable intellectual appeal, our preliminary tests fail to show any real practical advantage to this more complex trend smoothing method.” This is the general result seen with all testing of moving averages. At some times, the more complex calculations offer better results but at other times the simplest calculation works best. Overall, the results obtained with the simple moving average tend to be similar to the variants over the long-term.

Most of the refinements in calculating the moving average are designed to reduce the lag, or the distance between the average and the current level of prices. Another shortcoming of moving averages is that their use for trading signals will inevitably lead to a large number of losing trades. In *New Concepts in Technical Trading Systems*, Welles Wilder estimated that all markets show a significant and tradable price trend approximately a quarter of the time. Most markets spend up to 75% of the time confined within relatively narrow ranges, when moving average buy and sell signals will be repeatedly generated as prices rapidly move above and below the moving average. No matter how it is calculated, any moving average will be prone to this problem, known as whipsaw trades, at various times. This drawback to moving averages has thus far been impossible to eliminate.

In practice, moving averages can be used to make buy and sell decisions in any market. When price moves above the moving average, the asset is bought and held until the price falls below the moving average. The effectiveness of this strategy has been demonstrated in many papers. The 10-month simple moving average has been shown to be effective when applied to indexes reflecting price changes in US stocks, foreign equities, US government bonds, commodities and real estate.

One of the major appeals of this approach as a trading strategy lies largely in the fact that it is designed to participate to the upside during extended trends in prices and avoid large losses in sustained near markets. This simple strategy would have served investors well in the deep bear market which began in 2008. As global stock markets declined by 50% or more, investors following this strategy would have been comfortably out of the market. Signals for the S&P 500 are shown in Figure 2.
For the ten years ending in December 2009, this strategy showed an annualized gain of 14.71% while the S&P 500 was virtually unchanged. Unfortunately, over those same ten years, the strategy showed a loss when applied to the NASDAQ 100 or NASDAQ Composite index. It was also unprofitable after trading costs when applied to the Dow Jones Industrial Average or the very broad Russell 3000 Index.

Despite the nearly perfect performance when applied to the S&P 500 over that ten year timeframe and the impressive long-term track record in that instance, the moving average strategy requires an extended trend in markets to deliver profits. Stocks endured a grueling bear market in the 1970s, and in general went nowhere from 1966 until 1982. The 10-month moving average delivered a small profit over that 16 year time period, but underperformed a buy-and-hold strategy over that time.

The most apparent advantage of the 10-month moving average is that it avoids extended bear market trends. In the 2000-2002 bear market, selling the S&P 500 on a close under the moving average would have allowed an investor to avoid more than 70% of the losses that a buy-and-hold investor would have suffered. Almost two thirds of the losses in the 2007-2009 bear market would have been avoided by selling on the first monthly close below the moving average.

Looking at the Dow Jones Industrial Average, the 10-month moving average provided a timely sell signal after the 1929 crash. The Dow closed below its moving average only one month after the high, however prices were already down by 30%. Following the sell signal would have allowed the investor to avoid the significant losses which would continue to accrue over the next three years.

In 1987, the sell signal also occurred in a timely manner, only two months after the market top. However, that signal would have been taken after the bottom was in place, and after a 27% decline. Eight months later, the buy signal was more than 7.5% above the level investors would have sold out.

Tests on other assets show similar results – sometimes the 10-month moving average works very well, and at other times it delivers mediocre results, at times even underperforming a buy-and-hold strategy.

For long-term investors, avoiding losses can be as valuable as capturing gains at times. Major stock market indexes gained more than 80% in some cases in the year after the March 2009 low. The S&P 500 increased by more than 80% from the March low until peaking in April 2010. After that gain, the buy-and-hold investor would still have an account balance more than 20% below the high seen in the summer of 2007. This is because losses and gains are asymmetric, with bigger percentage gains being required to make up for losses. This is concept is illustrated in Figure 3.
As shown in the previous section, the moving average can help to avoid losses by alerting investors to move to cash during extended market declines. Investors can maximize the value of this observation by recognizing that different markets have different characteristics. Therefore there is no reason to believe that the simple 10-month moving average, or any other specific average, will be the best choice in all markets.

Using varying lengths of the moving average can lead to better investment results. One measure of investment performance is the annualized return, a value many investors use to select investments assuming that higher annualized returns are likely to continue into the future. Risk, when it is considered, is generally assumed to be captured by the standard deviation, a mathematical measure of the dispersion of returns. While standard deviation is a popular and important tool in academic studies on investing, most real-world investors focus on drawdowns, which is the amount their account declines from a peak value.

Using the example from Mebane Faber's *The Ivy Portfolio*, the five asset portfolio shows a maximum drawdown of 44% from June 1988 through June 2010. If the moving averages are optimized to reflect the unique characteristics of each market, this drawdown can be reduced to less than 8%, without significantly impacting returns. Annualized returns are reduced by less than 0.2% a year to achieve this degree of risk reduction (to 19.6% per year).

- **S&P 500**: 15 months
- **Bonds (30-yr US Treasury)**: 18 months
- **Commodities (CRB Index)**: 14 months
- **Global stocks (MSCI EAFE Index)**: 12 months
- **Real Estate (VNQ)**: 2 months

When optimizing, it is important to avoid curve fitting which would lead to test results that are unlikely to be duplicated in the future. One test to ensure this was not done is to examine the parameter stability. In this case, if the 15-month moving average is used on the S&P 500, we should see that any moving average value near that level also delivers profits. The stability of this parameter is shown in Figure 5. Similar results are found for the other assets used in the test.
In conclusion, moving averages can offer useful signals to investors, as well as traders. Over the very long-term, they have been shown to deliver market beating results while decreasing volatility in some markets. The value of the moving average is in decreasing risk rather than maximizing gains. No single parameter will best in all markets and at all times. Optimization across assets can offer significant benefits related to risk reduction.

MTA Announcements

MTA Charles H. Dow Award - Winning Paper Announced!

The Dow Award Committee is pleased to announce that coauthors Julie R. Dahlquist, Ph.D., CMT, senior lecturer, Department of Finance, at the University of Texas at San Antonio College of Business, and Richard J. Bauer, Jr., Ph.D., CFA, CMT, Professor of Finance at the Bill Greehey School of Business at St. Mary's University in San Antonio, Texas, have been selected by the Market Technicians Association to receive the 2011 Charles H. Dow Award.

Their paper, titled "Analyzing Gaps for Profitable Trading Strategies," presents a detailed template for analyzing gaps filtered for various market conditions to identify actionable trading opportunities while focusing on relative market performance.

To view the complete press release, please click here.

Board Elections Open

Members, Honorary Members and Emeritus Members, please note the following: Online proxy voting for the upcoming election of MTA At-Large Directors positions (3) is moving along well. However, we have still not heard from some of you as of this point and we are anxious to record your online vote!

These online proxies will be accumulated and the election results will be presented for approval at our Annual Meeting. This meeting will take place on Friday, May 13th, 2011 (4 PM EST) at the New York Stock Exchange, 11 Wall Street, 6th Floor Conference Room, New York, NY 10005.

You will need your MTA Member ID Number to vote (found under the 'My Membership' portion of your MyMTA profile) If you have any questions regarding the proxy voting process, please contact Marie Penza, MTA Director of Member Services, at 646-652-3300.

We welcome, and appreciate, your participation!
To vote, please click here.

Update to the MTA By-Laws (MTA Awards Section)

At our most recent MTA Board meeting, the Board reviewed and approved certain changes to the Awards Committee section of the MTA By-Laws. To view an updated version of the MTA By-Laws, please click here.

MTA Strategic Imperatives - An Important Addition!

At the MTA April Board of Directors meeting on April 12th, 2011, the Board unanimously agreed to an 8th strategic imperative regarding its staff and volunteers. To see the wording of this important strategic imperative, click here.

Knowledge Base Updates - Recent Addition & New Blog Posting

The following recent blog posting is now available in the Knowledge Base:

- The Gold/Wheat Ratio by Tom McClellan on April 18, 2011

The following resource has been added to the Knowledge Base:

- Planes Trains & Automobiles, the Sequel: A Daily Catscan of the Market Tape (Video); Resource ID: 2.12.01

To browse our free repository of technical analysis information, visit http://knowledgebase.mta.org.

MTA Library - Recent Additions

The following books were recently added to the MTA Library:

- "Best Practices for Equity Research Analysts" by James J. Valentine, CFA
- "Investing with Volume Analysis" by Buff Dormeier, CMT
- "The Technical Analysis Course" by Thomas A. Meyers
- "Definitive Guide to Position Sizing" by Van Tharp (Donated by MTA member Michael Gould)

If you would like to borrow any of these books, visit the MTA Library page on our website or contact Cassandra Townes at 646-652-3300. For a complete listing of all available books, click here.

New MTA Member Discount - Falcon Technology Systems

Falcon Technology Systems would like to offer a 10% discount to MTA members on their new PC, the F-37X. Falcon Technology Systems is a computer manufacturer specializing in the production of PCs for the trading community. Their core product line, which can be found at www.TradingComputers.com, consists of some of the fastest assortment of computers in the market today. During checkout, use discount code 'MTA'.