Pivot Points

By Jean Paul van Straalen, CMT, FRM

To view the charts from this article in full color, please visit Newsletter Archives on mta.org.

What are pivot points?

A pivot point is a tool used by traders to help determine the best trading strategy for the coming day. More specifically, a pivot point is the average of the previous trading day’s high, low and closing price of an underlying asset. Traders will calculate the pivot point at the beginning of each day, before the start of their trading, in order to establish resistance and support levels based on the extremes and close of the previous day.

Developed by professional floor traders—also known as “locals”—to analyse the short-term supply and demand in the market, a pivot point provides locals with an inflection point and an estimated trading range for the day. These pivot points, resistance and support levels are often tested by traders.

Calculating pivot points

The input needed to calculate the pivot point is the previous trading day’s high, low and closing price of the underlying asset. The pivot point is simply the weighted average price of these three variables. The resistance and support levels are derived from the pivot point, which is always the starting point of these calculations.

The classic formulas for the pivot, resistance and support points are shown below.

- Resistance 3 = High + 2*(Pivot - Low)
- Resistance 2 = Pivot + (R1 - S1)
- Resistance 1 = 2 * Pivot - Low
- Support 3 = Low - 2*(High - Pivot)
- Support 2 = Pivot - (R1 - S1)
- Support 1 = 2 * Pivot - High
- Pivot Point = (High + Close + Low)/3

The three most important points are the pivot point, resistance 1 (R1) and support 1 (S1). In the above formula, the resistance and support points are calculated up to the third resistance and support levels (R3 and S3). It should be noted that there is no limit on the number of resistance and support levels that can be calculated. Traders will often experiment using various resistance and support levels to determine which are most applicable to their underlying asset and money management strategy.

In the two tables below, we calculated the pivot points for some major indices and currencies.

There are pivot point calculators on the Internet that calculate potential resistance and support levels for the coming trading day. Two examples of pivot point calculators on the internet are www.mypivots.com and www.forextechniques.com. A similar calculator is also available on Bloomberg. We have built a pivot point calculator (Figure 1) and a template for indices and currencies that we can send to you if you are interested.

The Monthly Newsletter of the Market Technicians Association, Inc. For Over 30 Years

SEPTEMBER 2008

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Table 1. Pivot points of some major indices

<table>
<thead>
<tr>
<th>Indices</th>
<th>Open</th>
<th>High</th>
<th>Low</th>
<th>Close</th>
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<th>Resistance 2</th>
<th>Resistance 3</th>
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Letter from the Editor

This newsletter offers an opportunity for the best technical analysts in the world to showcase their work. While we usually feature the work of experienced technicians, Technically Speaking would appreciate the opportunity to review the writings of novice analysts for possible publication. Our newsletter is distributed to about 3,000 market professionals around the world, providing a great deal of exposure for your ideas.

However, lately we have had to reject several excellent articles because they provided short-term analysis. Due to the production time required for print publications, it is not possible for us to publish these types of articles.

Those seeking an outlet to showcase their tradable insights should consider blogging which allows for immediate publication. Several well-known analysts have used this approach and developed large audiences.

Novice analysts, as well as experts, can blog on sites like Market Education (http://www.marketedu.com/) which already has developed a community of readers. Those with the best ideas will get the most hits, and can develop their business model from there. MarketEDU even allows video blogging, which will help you prepare for that first appearance on Bloomberg or CNBC.

For those within the MTA attempting to demonstrate their trading skills, many brokerages offer trading contests for futures or foreign exchange. Stock-picking prowess can be demonstrated at web sites such as Marketocracy (http://www.marketocracy.com) where traders compete in real time. Of course we’d be happy to print articles about your success and your thoughts on these competitions in this newsletter.

The MTA exists to benefit its members. Technically Speaking is one of those benefits. Hopefully we deliver research articles of interest to you. But an overlooked benefit of this publication is that it can help new members get samples of their research published. I hope more analysts will take advantage of this.

Sincerely,

Mike Carr, CMT
Editor

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“What’s Hot”

The MTA Library Announces...

The MTA would like to announce that the following books have been added to the MTA Library.

- “Beyond Greed and Fear” by Hersh Shefrin
- “Preferred: Wall Street’s Best-Kept Income Secret” by Kenneth G. Winans, CMT

The MTA would also like to thank David Aronson, Kenneth G. Winans, CMT and Lane Mendelsohn for their recent donations to the MTA Library.

As we continue to add to the library, if you have any recommendations for us, please email Cassandra Townes at cassandra@mta.org

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MTA Updates

The following are some important updates and reminders from the MTA Office.

- **2009 Mid-Winter Retreat - Save the Date!**
  The MTA is pleased to announce that the 2009 Mid-Winter Retreat will be held in Las Vegas, NV from January 22nd - 24th. Event registration and more details will be posted shortly.

- **Charles H. Dow Award - Let the Competition Begin!**
  This year, the MTA Board of Directors have increased the cash prize for the winning paper 100% to $4,000. The recipients of the Dow Award in the past are among the most notable technicians in the market today. The deadline for submissions is February 6, 2009. Submit inquiries to DowAward@mta.org.

- **CMT Level 1 and 2 Format Change**
  After consultation with our test administrator, Prometric, we have decided that for the Fall and future CMT examinations we will embed a small number of randomly inserted questions which will not be scored but rather reviewed, evaluated and compared to existing psychometric standards for potential inclusion on future examinations. For the Fall examination, we will embed up to 10 additional questions in each (Level 1 and 2) examination. Through this method of “pre-testing questions” under actual test conditions, we can assume ongoing process of immediate scoring of the level 1 and 2 examination. Of course, we have carefully re-calibrated the examination time to ensure you are provided for the same ample time to complete the examination.
2009 Charles H. Dow Award Competition

By George A. Schade, Jr., CMT

The competition for the 2009 Charles H. Dow Award is open. The Award for excellence and creativity in technical analysis has been presented since 1994, and today is the most significant writing competition in the field. The recipients of the Award are among the most notable market technicians. The success of the Award has resulted in an enhanced cash prize.

The winning author will receive a cash prize of $4,000.00 and will be invited to present their paper at an MTA seminar or chapter meeting. The paper or a summary may be published in the MTA's Journal of Technical Analysis, Technically Speaking newsletter, and posted to mta.org. At the discretion of the judging panel, the authors of runner-up papers will receive certificates.

The last day to submit papers is February 6, 2009, and the winner will be selected on or before May 8, 2009. The 2009 guidelines (below) and copies of all winning papers are posted on mta.org under Activities. Submit inquiries to DowAward@mta.org.

Guidelines

1. Eligibility: The competition is open to anyone with an interest in technical analysis. By submitting a paper the author consents to the following terms of the competition.

2. Standards of Judgment: A paper will be judged according to the following standards:
   • The paper is based upon the concepts of technical analysis.
   • The topic is substantive.
   • The research is thorough. The presentation of an indicator, strategy, or system shall:
     A. Include the results of applying the technique to a sufficient quantity of data that covers at least one full market cycle and preferably longer.
     B. Show the application of accepted standards of testing, including but not limited to, statistical significance, Chi square, Monte Carlo simulations, and statistical correlation. Determining what is sufficient testing will depend on the particular paper, but where practical the author will be expected to show statistical significance for at least one full market cycle and preferably longer.
     C. The writing meets generally accepted standards of style for publications and college level writing.
     D. The analysis and conclusions are useful and enhance the understanding of market action.
     E. A paper shall not have been previously published in any media made available for public dissemination.

3. Style: A paper shall not contain less than 1,500 or more than 4,500 words including footnotes and endnotes. The text must be a persuasive and conclusive presentation of the subject. Charts, tables, and figures should be used to exemplify or supplement the text and should not be the primary means of conveying the author’s points. Charts, tables, and figures should be placed in appropriate sections of the text and shall be individually labeled in numerical sequence. When it is not possible to do so, they shall be presented in appendices. Statistical supplements are encouraged.

All references to the author’s name shall be removed from the text. All references to other materials and indicators created by the author shall be removed or disguised in such a manner that the judging panel cannot identify the author. The judging panel will not consider any paper that does not comply with these guidelines.

4. Format: One electronic copy and six hard copies of the paper shall be submitted to: Charles H. Dow Award, Market Technicians Association, Inc., 61 Broadway, Suite 514, New York, New York, 10006-2701. The electronic copy shall be submitted in a Portable Document Format file on a CD-ROM. The six hard copies of the paper shall have a title page that shows only the title of the paper. A separate, unattached title page shall be submitted that shows the title and the author’s name, mailing address, and telephone number. The judging panel will not consider any paper that does not comply with these guidelines.

5. Deadline: The last day for submitting papers is Friday, February 6, 2009. Submissions postmarked on or before that day will be accepted. Entries received after that date may be accepted at the discretion of the judging panel.

6. Judging Panel: The judging panel will be selected from prior winners of the Charles H. Dow Award, full Members of the MTA, and representatives of sponsoring organizations. Members of the Board of Directors of the MTA, excepting the editorial board of the MTA's Journal of Technical Analysis, shall not be eligible to serve on the judging panel. The chair of the Award Committee will be a non-voting member of the judging panel. No author shall ask for or receive assistance of any kind from a member of the judging panel.

7. Decisions of the Judging Panel: The decisions of the judging panel will be final and without recourse for reconsideration by the judging panel, the MTA, or sponsoring organizations. Prior to announcing a decision, the judging panel may in its discretion ask an author to revise a submission.

8. Cash Prize: The recipient will receive a cash prize of $4,000.00 and will be invited to present their paper at an MTA seminar or chapter meeting. If applicable, all federal, state, and local taxes shall be the sole responsibility of the recipient. The paper or a summary may be published in the MTA's Journal of Technical Analysis, Technically Speaking newsletter, and posted to mta.org. At the discretion of the judges, the authors of runner-up papers will receive certificates.

9. Publicity: The MTA may publicize the award, its recipients’ names (but not necessarily their places of employment) and all or part of the winning paper or runner-up papers. Award recipients and runners-up may publicize their awards in an appropriate manner without undue enhancement.

10. Authors' Copyright and Permission to Produce and Distribute Copies: The author of the winning paper and of papers awarded certificates shall retain the copyrights to the papers, but the authors shall permit the MTA to produce and distribute copies in any medium of all or part of a paper.

11. Return of Materials to Authors: Papers, charts, tables, and figures will not be returned to the authors following the conclusion of the competition.

12. Invitations for Submissions: Invitations for submissions and guidelines shall be published in the Technically Speaking newsletter and posted to mta.org at least 120 days prior to the last day to submit papers. Invitations may be publicized in any manner chosen by the MTA in order to reach the largest number of interested people.

13. Chartered Market Technician (CMT) Papers: A paper submitted to the MTA to fulfill the requirements of the Chartered Market Technician program shall not be eligible for the Charles H. Dow Award unless the MTA has approved the paper as a CMT submission. After receiving this approval, the paper can be submitted for the Charles H. Dow Award competition.

MTA Job Board

Take advantage of the MTA Job Board! Members are encouraged to search job openings posted by outside organizations and companies. You also have access to various links that allow you to view other industry job boards.

If you have any questions or are interested in posting a job opening please contact Tim Licitra at tim@mta.org or at 646-652-3300.
R. N. Elliott - The Years Before the Discovery

By George A. Schade, Jr., CMT

The Elliott Wave Principle, the legacy of Ralph Nelson Elliott, is practiced globally - now 62 years after his last work was published. Within its sophistication, as Paul Tudor Jones pointed out, “Elliott Wave theory allows one to create incredibly favorable risk/reward opportunities.”

We focus on a pioneer’s work and when impressed by a theory, we wish we knew more about the person. Essayist Ralph Waldo Emerson put it best: “There is properly no history, only biography.”

Ralph N. Elliott’s Wall Street career is well known. During the last 13 years of his life, he advanced a unique theory of stock market action. The Elliott Wave Principle was first revealed privately, in December, 1934, to Charles J. Collins, an investment counselor. In August, 1938, a monograph written with Collins’ assistance - The Wave Principle - was published.

A year later, Elliott wrote the now-famous twelve articles for the magazine Financial World, where Elliott’s theories were presented to a larger audience. Between November 1938 and August 1945, Elliott issued interpretive letters and educational bulletins. In June 1946, his last work - Nature’s Law: The Secret of the Universe - was published.

But what was Elliott’s background, and what do we know of his first 64 years?

Ralph Nelson Elliott was a child of the American Western frontier and an international man.

He was born on July 28, 1871, in the small community of Marysville, Marshall County, located by the Big Blue River, in northeastern Kansas. Elliott’s family had arrived in Kansas around 1868, to what was then the edge of the bustling American frontier. They purchased farmland.

The settlers on the Oregon Trail and the Pony Express riders all had passed by Marysville. The 1996 Olympic Games torch passed through Marysville.

His father, Franklin, was born in 1835, in Ohio, when that area marked the Nation’s Western frontier. His mother, Virginia Nelson, was a native of Philadelphia. Elliott’s grandparents were born in the United States, except for Virginia’s father, who had migrated from County Donegal, Ireland. Elliott had one sibling, sister May, who lived most of her life in the Los Angeles, California area.

Elliott’s maternal great-grandfather fought as a private militiaman at Bunker Hill during the American Revolution, was wounded and was made one of General Washington’s bodyguards. Elliott’s paternal grandfather Hugh was a veteran of the War of 1812.

Most of Elliott’s early childhood was lived on Elm Street in Fairbury, Illinois, a small and prosperous farming community about 100 miles southwest of Chicago. Elliott’s father was a merchant, while his mother’s family farmed, Virginia Nelson’s brothers and sisters each farming 80 acres.

In early 1880, the Elliotts moved to San Antonio, Texas, where Elliott formed a lifetime love for Mexico and Latin America. He spoke Spanish, and wrote it well as some of his letters written in Guatemala in 1926 attest.

His family typified the American family that migrated West living at the frontier’s dynamic economic edge. From origins in Ohio and Philadelphia, to Kansas, Illinois, Texas, and to their final destination in Los Angeles, California, in the early 1890’s, the Elliotts lived by movement and progress. Elliott’s father, mother and sister are buried side by side in Inglewood, California.

Growing up with a spirit of independence and exploration, foreseeably, Elliott became an international man.

In 1891, at age 20, he moved to Mexico to work on the railroads at the height of North America’s railroad boom. He lived in Mexico for the next 25 years. In youth, he worked as a lineman, train dispatcher, stenographer, telegraph operator and station agent. Later, he was employed in a variety of railroad executive positions, primarily in accounting and business reorganization.

On September 3, 1903, Elliott wedded Mary Elizabeth Fitzpatrick (1869-1941), a New Yorker. Mary was with Elliott in Mexico, Nicaragua and Guatemala. They were married for 38 years.

During these same twenty-five years, Mexico held massive investments by the British in mining, the French in textiles, and the United States in railroads. The Elliotts might have remained in Mexico the rest of their lives. But by 1911, social tremors heralded the tragic and violent Mexican Revolution, during which nearly 2 million people died. In June 1916, (in his words) when President Woodrow Wilson “ordered all Americans out of Mexico,” Elliott complied. He moved to Los Angeles where he cared for his elderly father who died within a year. His mother Virginia had died in 1909.

Elliott spent his last two years in Mexico (1914-1916) in Frontera, a town at the mouth of the Grijalva River, on the Gulf of Mexico, near the Yucatán Peninsula. This was a safe place to avoid the fury of the Revolution wrecking Mexico.

Consider two events that occurred in 1914: The U.S. Marines seized the Mexican seaport of Veracruz, making Americans very unpopular, and later that year, the Mexican Government seized the National Railways of Mexico, most probably resulting in Elliott losing his job. Frontera, with its American community (an American consul was posted in Frontera), was a safe haven. In Frontera, Elliott may have worked for one of the American-owned mahogany plantations in the area (when mahogany furniture was very popular).

Even after his forced departure, Elliott’s passion for Latin America remained unabated. Between 1917 and 1920, Elliott tried to establish an American paper company’s export business in Mexico (1918); was an auditor for the Pierce Oil Corporation in Tampico, Mexico (1919); and, passed up an offer of employment from the Cuba Railroad Company (1920).

Elliott’s passport applications show that he was 5’8” tall, had blue eyes, brown hair, a complexion described as “ruddy” and “fair,” and wore eyeglasses. Photos taken in 1918 and 1924 show an elegant man with a sturdy frame, hardy appearance and an air of self-assurance.

By early 1920, Elliott had moved to New York City, where he remained until late 1924. During these years, Elliott worked in corporate restructurings and established a consulting business. He traveled to Canada, England, France and Germany.

He developed a specialty as a consultant to restaurants, cafeterias and tea rooms. This specialty built on his accounting knowledge and business expertise. He authored a monthly column for the magazine Tea Room and Gift Shop. In his introduction to its readers, the magazine said of Elliott that “he is primarily a business man.” His two-page column answered readers’ questions and gave accounting and business guidance for operating a restaurant.

During these years, Elliott’s knowledge of Latin America and his corporate experience had brought him into contact with influential people in the academic and political worlds, who noted his abilities. Elliott had met these individuals in Latin America or through his railroad positions. One of these, Dr. Jeremiah W. Jenks, a distinguished lawyer, academician and political advisor, was influential in leading Elliott to his highest political appointment.

In December 1924, President Calvin Coolidge’s Secretary of State, former New York Governor and Supreme Court Associate Justice Charles Evans Hughes, appointed Elliott Chief Accountant of Nicaragua, which was then under American military governance. From February to June, 1925, he worked in Managua. As reported in The New York Times, Elliott worked “to revise the banking and financial laws of Nicaragua.” The Elliotts left Managua a few months before the United States Marines departed Nicaragua.

From August, 1925, to October, 1926, in his last corporate position, Elliott served as the General Auditor of the International Railways of Central America in Guatemala. The railroad’s headquarters were in Manhattan, and its stock was traded on the New York and London Stock Exchanges. Today, this is the national Guatemalan railroad. Letters written in this position show that Elliott spoke and wrote Spanish well.

In 1926, Elliott wrote a 100-page manuscript titled The Future of Latin America, which he wanted to expand into a book. The manuscript originated as an internal memo to the U.S. continued on page 10
In addition, there are various kinds of technical analysis software available that incorporate pivot point calculations and display graphically the resistance and support levels.

**How to use pivot points**

Those who trade on a daily basis often use pivot points to forecast potential turning points for the coming trading day. This forward-looking nature of pivot points, with predictive resistance and support levels, is the main reason they are so widely used. Its popularity, in turn, has meant that many traders follow or monitor the market reaction at these points. The resistance and support levels are often good points at which to enter or exit trading strategies.

Traders use a number of trading techniques and strategies that draw on pivot points as reference points or targets:

- A **directional trade** is a trade that is based on the opening price of the underlying asset. When the asset opens above the pivot point, the trader would go long, and when the asset opens below the pivot point, the trader would go short for the day.

- Another strategy is based on the idea that the asset is probably overbought when it reaches R2 or R3 and oversold when it reaches S2 or S3. These levels should therefore be used to enter or exit strategies. A trader would enter a short position when the underlying asset reaches a resistance level and would enter a long position when it reaches a support level.

- Pivot points can also help the trader to define exit strategies. Stops can be placed above resistance levels or below the support levels.

- Pivot points can also be used to take profits on all or part of the position when the underlying asset reaches a specific resistance or support level.

**Example of a trade**

Let’s say the underlying asset opens above the pivot point. It then stalls slightly at R1 before going...
Pivot Points
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Chart 1: Dow Jones Euro Stoxx 50

Chart 2: Dow Jones Euro Stoxx 50
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Pivot Points
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on to R2. In this case, the trader would enter on a break of R1 with a target of R2. If the asset has strong momentum, the trader would take profits on part of his position at R2 and target R3 with the remainder of his position.

In charts 1 and 2, the pivot point, resistance 1, resistance 2, support 1 and support 2 levels of the Dow Jones Euro Stoxx 50 index are displayed. The charts show that the DJ Euro Stoxx 50 tends to remain within the secondary support and resistance levels (R2 and S2). Traders would therefore use these levels as their outside boundaries.

Looking at chart 2, on 15 May, the opening level of the index was above the pivot point, which indicates a bullish signal for the day. However, the index crossed the key pivot point downwards, which indicates a reversal in the market. At that point, the trader would reverse his initial trade or close his long position. The DJ Euro Stoxx 50 did not test the primary support and resistance levels. On 14 May, the index successfully broke above the primary resistance level and went on to test the secondary resistance level (R2), but this proved to be an obstacle, as the asset closed just below R2.

Variations on pivot points

Over the years, traders and technical analysts have developed variations on pivot points based on their own experience using them in their trading. In one of the most common variations, today’s opening price is added to the pivot point calculations. The simple weighted average of these prices forms the new pivot point. All new support and resistance levels will then be calculated using this new pivot point.

Another variation on the pivot point is the use of longer time frames. While the original pivot point is based on daily prices of an asset, one can also use weekly or monthly prices to calculate pivot points.

Tom DeMark pivot point system

One pivot point system that has gained prominence was developed by Tom DeMark*. As shown in the table below, the calculation of DeMark’s pivot points depends on the closing and opening prices of the underlying asset. Based on the condition status of the underlying asset, a calculation will be executed including the high, low and closing price resulting in a factor X (middle column). This X factor is the input for the projection of the next trading day’s high and low, which provides the trader with a forecast daily trading range.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Calculation</th>
<th>Tomorrow’s Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today Close &lt; Today Open</td>
<td>today high + today low +</td>
<td>High = x/2 - today low</td>
</tr>
<tr>
<td></td>
<td>today close + today low = x</td>
<td>Low = x/2 - today high</td>
</tr>
<tr>
<td>Today Close &gt; Today Open</td>
<td>today high + today low +</td>
<td>High = x/2 - today low</td>
</tr>
<tr>
<td></td>
<td>today close + today high high= x</td>
<td>Low = x/2 - today high</td>
</tr>
<tr>
<td>Today Close = Today Open</td>
<td>today high + today low +</td>
<td>High = x/2 - today low</td>
</tr>
<tr>
<td></td>
<td>today close + today close = x</td>
<td>Low = x/2 - today high</td>
</tr>
</tbody>
</table>

While the trader often relies only on the pivot points to make his trading decisions, the technical analyst tends to look for confirmation from other technical indicators to enhance the trade’s probability of success.

* Tom DeMark started his career as an analyst at NN Investment Services in Milwaukee, Wisconsin, USA, identifying market tops and market bottoms in 1971. He is now president of Market Studies Inc, which provides proprietary market timing indicators to Bloomberg and other financial services companies and advises hedge fund manager Steven Cohen and SAC Capital.

Sources

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Finding Pivot Points, Gregg Tan Bloomberg Magazine August 2004
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Jean Paul van Straalen CMT FRM, was Vice President of ABN AMRO Asset Management/ Fortis Investments. His activities were focused on quantitative research and managing a Global Equity Value portfolio driven by quantitative models. Currently he and his colleague John Galakis are starting their own capital management firm. Before joining ABN AMRO Asset Management he has been a senior consultant at Van Den Boom Group/NBC in the Netherlands for Treasury and Risk Management advisory. He started his career as a trader in various financial products, as well as Head of Market Risk Management at the Indover Bank.

Market Will Be Rational When People Are – Dr. Samuel Tibbs

By Ajay Jani

Ajay Jani spoke with Dr. Tibbs in mid-June. Tibbs is co-author of the paper “Using Index Momentum to Generate Alpha,” which was recently recognized with the 2008 MTA Dow Award.

The paper uses a combination of proprietary and Russell index data to test the proposition of relative strength investing based on index style. The paper expands upon the growing evidence of the efficacy of momentum investing, while breaking new ground in terms of the asset classes used to generate the momentum signals. Until now, most of the momentum work has been done on individual stocks or sectors, rather than styles such as “growth” and “value.”

The desire to find a low cost alternative to implement a momentum investment strategy led Tibbs to this research. Previous work on relative strength required access to specialized databases or involved high turnover, fees, and expenses. While primarily a fundamentalist, he has kept an open mind to the benefits of using technical and quantitative methods to aid in security selection and timing.

In order to trade the strategy presented in the paper, no other inputs were required other than the returns of the various Russell indices tested. This makes the strategy ideal for individual investors to follow. Tibbs thinks that any investor interested in pursuing this strategy could do so with 30 minutes of effort each month to collect the data, make the calculations, and effect any portfolio changes.

During the test period of January 1972 – December 2005, investing in the top performing style, and maintaining the position as long as it was the top ranked one based on the 12-month total return would have given an investor a compounded return of 18.77% per year. This figure does include dividends but does not include taxes, commissions, or other trading costs.

During this time frame, the best performing style was small cap value (SV), which in comparison would have returned only 16.09%. This gain of nearly 2.7% per annum, when compounded over 33 years, provides an account balance that is 2.1 times greater in value. Tibbs felt that this was certainly an attractive strategy worth looking at, and he did not believe that transactions costs and fees would completely eliminate the edge. Using a retirement account would remove the consideration of taxes from the decision of whether to pursue the strategy.

I mentioned to Tibbs that most individual investors view risk in terms of drawdown, not standard deviation, and asked what the drawdown figures were for his method. Based on figures he provided, I calculated the maximum drawdown while investing in the top style strategy on a (12, 1) basis was 37.5%. This compares favorably with the approximate 50% drops that the S&P saw in both 1973-1974 and 2000-2002.

When I asked Tibbs how the publication of his

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research would affect the strategy, he was a bit circumspect. He feels that as the research gains exposure, some will try to follow the strategy and thus future returns might be a bit less than seen over the past few decades. However, he does not believe that the effect would completely disappear. He feels that investors often chase performance and put money into funds that have done well recently. Thus, managers investing in the best performing styles would continue to see cash inflows which they would use to buy the types of stocks that led to the good performance in a self-reinforcing feedback loop.

Wondering how his fellow academics had responded to his paper, I asked Tibbs how his research had been received. He said there has been mixed feedback. Some in academia, especially those committed to the Efficient Markets Hypothesis, have questioned his results. However, the investment community and the MTA membership in particular have been much more interested in looking at ways to expand upon the research. Tibbs said he has received many interesting ideas on extensions of the project, with looking at daily data among the top on his list to pursue.

Unfortunately, Tibbs is currently focused on preparing to seek tenure at his university and doesn’t have plans in the short-term to continue with this line of research. He also doesn’t plan to enter the private sector in the near future since he has young children and enjoys the academic lifestyle that gives him more time to spend with them.

When I asked Tibbs if he uses the strategy described in his paper to manage his investments, he surprised me by replying that he does not, at least not in a formal manner. He does take into account past returns when making some asset allocation decisions, but does not actively pursue the strategy as described in the paper. When asked why, he replied “I like to trade stocks.” In fact, on extensions of the project, with looking at daily data among the top on his list to pursue.

Ajay Jani has been in the investment business since 1989, and is currently Managing Partner of Single A Capital, LLC, a hedge fund investing in Emerging Markets. He is an MTA affiliate and has completed levels I & II of the CMT.

**Updating “Using Index Momentum to Generate Alpha”**

This paper was recently recognized with the 2008 MTA Dow Award. It presented test results from January 1972 – December 2005. Ajay Jani recently updated the research to see how this research had fared since that time.

Between January 2006 and June 2008, the top ranked style had a total return (including dividends) of -0.88%. In comparison, the bottom ranked style had a total return of -5.14%. The S&P 500 had a total return of 7.60% during this time frame.

Thus Jani finds that the returns have been a bit less during the past 2.5 years, but there is still a spread between top and bottom ranked styles using the paper’s ranking methodology. These figures all exclude transactions costs, similar to the data in the paper.

To Jani, the most striking change is the rank-based returns of the strategy. From 1972 – 2005, there is a monotonic relationship between the rank and compounded annual return. When looking only at the data from 2006 to June 2008, the second ranked style actually has a higher compounded return than the top performer.

**Support the MTAED/MTA Library at Baruch College**

The MTA Educational Foundation’s commitment to introduce technical analysis to colleges and universities extends to the library. Baruch College alum, Baruch College Fund Trustee and MTA Educational Foundation Advisory Panel member, David Krell, CMT, has established a matching program for donations to the Baruch College Fund to benefit the MTAED/MTA Library at Baruch College. The goal is $50,000.

David will match donations up to $1,000, dollar-for-dollar, with a maximum of $25,000. The matching plan is for one year and ends June 30, 2009.

The establishment of the collection at the Baruch College Newman Library and the MTAED/MTA Library Fund are the first steps in what is hoped will become a long and productive collaboration.

As the thermometer shows, we have a long way to go to reach our goal — your contribution is very important to maintaining and building our valuable collection. If you or your firm would like to make a gift to the Fund, please log on to the new Foundation website at MTAEducationalFoundation.org (go to Support the MTAED/MTA Library under the Library button) to download the Baruch
Georgia Tech’s Class on Technical Analysis for Stocks 2001-2008: Special topics MATH and ISYE 4801

Prepared by F.P. Powell, CMT

Georgia Tech began exploring a Technical Analysis (TA) class in 2001 with Dr. Robert Kertz spearheading the effort. Dr. Kertz was head of the Quantitative Computational & Finance (QCF) program in the School of Mathematics at Ga. Tech. Dr. Kertz had some knowledge of TA through various sources including general media, other Business Schools, academic articles (e.g. Lo at MIT) and from some of the students in the program. Professor Kertz stated “the main idea was to have some ‘extra value’ courses that would fill in some possible gaps within the education of the students in the Masters of Science (MS) QCF program, and which would be useful to them in one way or another in their broad range of QCF-related careers after their graduation. These would not be courses that would count towards their curriculum requirements, but they would be taken as extra Georgia Tech courses”.

Dr. Kertz noted the following points were important for getting the TA class off the ground:

- It was important to convince others – faculty, administrators, and students – that TA would be such a topic that would fit into areas complementary to the QCF education.
- It was important that there was good planning and instructional materials already available for course presentations, along with an expert practitioner in the field to teach the course.
- There were discussions within Georgia Tech on the appropriate level of the course offering, the appropriate number of credit hours, how the course would fit into students’ schedules, and possible necessities for the course, such as software application usage by the students.
- There was consideration of the qualifications of the instructor and the proposed adjunct status to be given to the instructor.
- There was consideration of costs in running the course.

To date there have been three TA classes taught at Georgia Tech, in the Spring Semesters of 2002 and 2005 and the Fall semester of 2007. The class has been taught using John Murphy’s Technical Analysis of the Financial Markets as the textbook, although I believe the recently published Kirkpatrick and Dahlquist Technical Analysis textbook should be given serious consideration for future classes. The class covered most of the material required for a CMT Level 1 Exam including Supply-Demand Analysis, Pattern Recognition, Dow Theory, Relative Strength, Cycles, Momentum, Volume, Inter-Market Analysis, Sentiment, Elliott Wave and Fibonacci Analysis and Portfolio Management.

Each class has consisted of about 20-30 students with about half of them taking the course on an audit basis. Most of the students were graduate level although there were some seniors sprinkled in there as well. The class was originated out of the School of Mathematics under the QCF Program, although this most recent Fall Semester the class was offered under both the School of Mathematics (MATH) and the School of Industrial and Systems Engineering (ISYE). The classes have been worth 1 credit hour under the MATH and ISYE 4801 Special Topics class designation.

Each semester that the class has been taught, several prominent Analysts as guest speakers were invited to give lectures on areas of specific expertise. These individuals deserve special credit for their contributions and include Phil Roth on Sentiment (each year), the late John Brooks, Fred Meissner and the late Ian Notley on Cycles and Sam Hale, Kevin Murphy, Bob Prechter, and Wayne Gorman on Elliott Wave. Their contributions increased students interest level, added credibility to the class, and was a key component to the success of the class.

In sum, the Technical Analysis course at Georgia Tech has been a success and I consider the opportunity to teach the class a privilege and an honor, but frankly the success of the class is the result of a joint credit effort from a lot of different people including all of the guest speakers, Barbara Gomperts from the MTA Educational Foundation, Dr. Kertz, and all of the other Georgia Tech personnel that have been involved.

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R.N. Elliott - The Years Before the Discovery
continued from page 4

Department of State. Elliott presented comprehensive foreign policy proposals for creating economic stability and lasting prosperity in Latin America. He chastised the United States for being “a country of provincials” unable to visualize the many opportunities abroad. He wrote: “The citizens of the United States are under a moral obligation to mankind...it is an evident duty that they do all in their power to assist the less fortunate toward the enjoyment of that prosperity and peace of mind which they themselves have come to know.”

This memo shows Elliott to be an acutely knowledgeable observer of Latin American customs, economics and politics, with a strong desire “to outline a constructive foreign policy along practical lines” for U.S.-Latin American economic affairs.

Elliott wished to write a book advancing his Latin American ideas. It did not happen; it would have been his second book. In August, 1926, his Tea Room and Cafeteria Management was published. The book advises on establishing and operating a tea room and cafeteria and shows Elliott’s varied business expertise and acumen. Today’s Starbucks would be similar to a tea room of the 1920s. The book was favorably reviewed in The New York Times and the former New York Herald Tribune.

Both The Future of Latin America and Tea Room and Cafeteria Management show a gifted writer who counsels in the most practical and beneficial ways to succeed as a Nation and profit in business.

In 1926, Elliott returned to New York City, suffering from a severe alimentary tract illness commonly found in tropical areas. By January, 1927, the Elliotts had left New York City and moved to downtown Los Angeles. In late 1938, the Elliotts returned to Brooklyn, where they remained the rest of their lives.

He continued his business consulting practice, which now included “private investments.” His health, however, was deteriorating. By 1929, he was physically debilitated and was forced into unwanted retirement.

His sharp and energetic mind would not rest. His stock market studies began. He read Robert Rhea’s book, Dow Theory, and was one of the first subscribers to Rhea’s stock market service.

Elliott’s observations led not only to the discovery of the Elliott Wave Principle but, at age 64, to a career in Wall Street, to what he later referred to as “Wave number five of my own life.” The Elliott Wave Principle is described in Robert R. Prechter’s R. N. Elliott’s Masterworks: The Definitive Collection, New Classics Library (1994).

Mary Elizabeth Elliott died on December 30, 1941, in Brooklyn, New York. There is no record that the Elliotts had children. Elliott’s sister May died in Los Angeles on December 18, 1953. May was Elliott’s sole surviving relative.


Sources

The author acknowledges Mr. Prechter’s invaluable assistance throughout this project. George A. Schade, Jr., CMT, has been researching Ralph N. Elliott’s biography since 1991. He contributed new research to Elliott’s biography published in Robert R. Prechter’s Masterworks.

Footnotes
2. For his significant contributions to the field of technical analysis, the Market Technicians Association awarded its 1996 Annual Award to Ralph Nelson Elliott.
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. The old ways of staring at a Bloomberg to get bid/ask quotes and transacting an order is gradually being supplemented by more sophisticated strategies, such as, algorithmic models to meet various investment goals. The objective of this course is to give the student an introduction to various trading strategies that can achieve best execution. This course should help achieve: “Best Execution.”

ADVANCED CAPITAL MARKETS ANALYSIS

Spot, forwards, futures, swaps, options, and statistical issues are discussed in dynamic capital market strategies. This course was first introduced as a course to a top Ivy Business School. Solving the course problems and cases has brought angst to MBA and CFA candidates. Still, the topics are the food for advanced hedge fund techniques.

Instructor John Palicka CFA CMT is a top-ranked portfolio manager of Global Emerging Growth Capital (WWW.GLGEKC.COM) with over 25 years experience of managing $ billions. He has doubled client money, on average, every four years since 1980*. His high course ratings from major investment institutions, serious students, and clients as well as fund marketing techniques; and career advice to get the big bonus checks. An interactive investment workshop reinforces these skills when participants get to select stocks, choose a performance measurement method and then determine a marketing style and vehicle to create an investment approach producing excess returns. Case studies examining the investment approaches of leading versus average performing portfolio managers are also included. This intensive course goes beyond basics into the sophisticated and subtle strategies that can help achieve: “Top Quartile Manager”

The above course samples represent a growing list of destinations and dates, both for open and private client formats in 2008. They are produced in GCC countries (Enhance Training and Development) and with other learning vendors in New York, Los Angeles, Paris, London, Poland, Beijing, South America…….

- Taught by John Palicka CFA CMT -

FUSION ANALYSIS

This is a professional approach that blends fundamental, technical, behavioral and quant strategies. The approach attempts to exploit profitable opportunities in market investing by both investors and traders. Whilst the course focuses on US equities, other asset classes, such as, fixed income, commodities, FX, real estate, and GCC stocks will also be analyzed. Given the plethora of strategies, the workshop will help create focused approaches to meet specific investment objectives. Fusion Analysis can create: “The better approach to investing”

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. Also reviewed are: accounting and cash flow strategies that are sidestepped by professional investors, but punish many investors; various trading strategies, incorporating algorithms, hyper-trading, dark pools, and derivatives; new reporting requirements for regulatory considerations, consultants and clients as well as fund marketing techniques; and career advice to get the big bonus checks. An interactive investment workshop reinforces these skills when participants get to select stocks, choose a performance measurement method and then determine a marketing style and vehicle to create an investment approach producing excess returns. Case studies examining the investment approaches of leading versus average performing portfolio managers are also included. This intensive course goes beyond basics into the sophisticated and subtle strategies that can help achieve: “Top Quartile Manager”

INVESTMENT FUND SELECTION

This is a must attend course for all professionals involved in the selection and management of third-party investment managers. Investment Fund Selection offers an insiders perspective into the various challenges in determining the most appropriate fund structure, managerial style and fund value-added performance of third-party investment managers in order to achieve individual investment objectives. Portfolio theory considerations and statistical issues are discussed with behavioral considerations.

Reviewing different fund structures, such as mutual funds, private equity and hedge funds, participants explore regulatory, audit, established and recent portfolio performance measures and, learn about subtle tricks that some funds can use to “dress up” performance records and charge unwarranted fees.

An optional and practical one-day investment fund selection workshop will also include various fund case studies and exercises to reinforce the definitive selection techniques learnt. Participants get to perform an investment fund selection role-play in order to evaluate and screen funds for specific investment criteria and answer the question: “Is my fund manager giving me my money’s worth?”

TECHNICAL ANALYSIS CMT 1

A must attend 4-day course for investment professionals wishing to prepare for the CMT Level I professional qualification in Technical Analysis from the Market Technicians Association (MTA). Using real-life charts, participants learn traditional technical tools of charting and many specialized topics. Whilst the course focuses on US equities, other markets including GCC stocks and real estate will also be explored. An optional 1-day session entirely dedicated to exploring trading opportunities for US and GCC equities, FX, commodities and bonds using technical analysis. Prior workshops correctly called the rise of the US market and the decline of the Saudi market by blending technical indicators. This course should help answer the question: “Buy or Sell and When”

To find out more about these courses in GGC locations, please call Esam Hassanyeh + 9714 391 0234 or visit his website: www.enhance.ae

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