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The Swiss Technical Analysis Journal is a quarterly publication established by The Swiss Association of Market Technicians (SAMT). It is compiled by a committee of SAMT colleagues. The Swiss Technical Analysis Journal is essential reading for academics, students and practitioners in technical analysis in all arenas. It is an excellent reference source for anyone interested in technical analysis, containing a wealth of resource material.

**Credibility And Recognition**

The Swiss Technical Analysis Journal has original contributions from its members covering developments in technical analysis in global markets. The Journal’s aim is to reach leading practitioners and students of technical analysis throughout the world.

The Swiss Technical Analysis Journal is a professional resource. Its online publication on the SAMT website will make its work available as a future resource to the community of technical analysts.

**Topics**

SAMT is seeking papers that cover developments impacting, either directly or indirectly, on the field of technical analysis; they may be drawn from such areas as:

- Basic market analysis techniques
- Indicators – sentiment, volume analysis, momentum, etc.
- Global and intra-global technical analysis
- Styles of technical analysis
- The changing role of technical analysis in the investment community.

We would especially like to see contributions that draw from areas not previously examined, and/or topics tangential to technical analysis.

The list is just a guide and should in no way be considered restrictive. We wish to make the Journal open to new and innovative ideas from all areas of technical analysis and those that connect with it.

**Submitting Contributions**

Submission of contributions to mario.guffanti@samt-org.ch

**Language**

Contributions must be submitted in English with British grammar required.

**Writing Style**

Papers should be written in a thesis style.

**References**

All texts referred to in the paper must be appropriately referenced with a bibliography and endnotes (footnotes will not be accepted.)

Responsibility for the accuracy of references and quotations is the author’s. We expect the authors to check thoroughly before submission.

All references are to be included as endnotes. No separate list of references or bibliography should be provided.

**Figures, Charts and Tables**

Illustrations and charts must be referred to by Figure Number and source (when applicable). Tables must be referred to by Table Number and source.

**Length of Contribution**

Papers should be approximately 1,200 to 3,000 words, with supporting graphs and charts.

**Format**

We ask for submission in MS Word or other text format. PDF format will not be accepted. Charts and graphs may be in gif or jpeg, but we ask that authors also keep a tif format in case it is required.

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Material deadline for the Spring 2016 issue

Friday, 15 April 2016
Dear SAMT members & industry colleagues,

Another trimester is over since our last Journal publication and a lot of work has been done behind the scenes. Our website has received a complete overhaul and will receive further content and functions in the near future. Our member database has been extended so that a lot of automation could be introduced, which will help to target our audience even better. Make sure to check it out: www.samt-org.ch.

At the beginning of October, the annual IFTA conference took place in Tokyo, Japan (see page 17). It was a great success and an ideal networking platform with interesting speakers. I am proud to announce that the IFTA 2016 conference will take place in Sydney, Australia.

An upcoming event in our region is the 2016 Lugano Fund Forum. Check out the article on page 6. SAMT will participate in the panel discussion “Winner & Losers in the Forex Market”.

As with every SAMT Journal, expect a series of high-quality research articles along with reviews of technical indicators and trading approaches. From Dominick Salvatore evaluating growth prospects of the world economy, Martin Pring showing an intermarket approach to analyse trends in the dollar index to Hank Pruden applying the CUSP Catastrophe Theory, two articles on cycles from Charles Kirkpatrick and Alberto Vivanti.

And finally, if you want to see some of the experts live, visit our website’s event section or refer to page 37 for upcoming SAMT events.

Sincerely yours,

Patrick Pfister, CFTe
President of the Swiss Association of Market Technicians (SAMT)
Introduction
The fifth annual Lugano Fund Forum will take place on 23-24 November 2015.

This prominent event focuses on Asset Management, Investment Tools (covered warrants, certificates, ETF, structured bonds, unit linked, etc.), and Fundamental Analysis, held in Italian-speaking Switzerland, at the Palazzo dei Congressi in Lugano. This venue hosts a number of conferences, prominent speakers and an exhibition area. The special guest in 2014 was Jean-Claude Trichet, former President of the ECB, along with the extraordinary presentation by Dr. Dominick Salvatore.

This year special guest speaker will be Joseph E. Stiglitz, 2001 Nobel Prize winner in economics for his analyses of markets with asymmetric information. He is also the lead author of the 1995 Report of the Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize. He is a university professor at Columbia University in New York City, founder and Co-President of the university’s Initiative for Policy Dialogue at Columbia, and member and former chair of its committee on Global Thought.

Also attending this year will be Dr. Dominick Salvatore, distinguished professor of economics and director of the Ph.D. program in economics at Fordham University in New York City, consultant to the United Nations, the World Bank, the International Monetary Fund, the Economic Policy Institute and author of the world’s leading textbook on international economics. His Theory and Problems of Microeconomics has been translated into 18 languages, with more than 800,000 copies sold. In all, he has published 57 volumes.

SAMT Participation
Last year, SAMT participated as a partner at the Lugano Fund Forum producing an article for the forum’s catalogue.
SAMT will also partner in the 2015 forum, with a participation and the coordination of the panel: Winners & Losers in the Forex Market.

Our representative member, Mario Valentino Guffanti, will interact with Laurent Bakhtiar (Market Analyst-IG Bank) and Yann Quelem (Market Analyst - Swissquote).

The goal of the presentation is to provide the users a range of information from technical, micro and macro economic, politic and fundamental analysis of the future scenarios of various currencies.

The presentation will take place on 24 November starting at 15:00 at the Auditorium (Conference Room A).
Click the link to download the complete program.

The Lugano Fund Forum is organized by Lantern Research, managed by its CEO Riccardo Esposito. Lantern Research is an international network that aims to support its members’ activities, not only to increase their visibility in the international financial community, but also to share the knowledge within the network.

For this reason we are pleased with our partnership and to publish the exclusive article written by Dr. Salvatore for our readers and members.
Growth Prospects for the World Economy

Is the World Drifting Toward a New Global Financial Crisis?

Dominick Salvatore, Ph.D.

1. Introduction

After nearly six years from the end of the deepest global financial crisis of the postwar period, growth continues to be slow and uneven in advanced countries and falling in most emerging markets. There is even the risk that the world may be drifting toward a new global financial crisis.

In this paper, I will examine the dramatic economic events and the crucial financial challenges that the world faces at this juncture. These are:

1. the slow and uneven economic growth in the advanced countries after the recent global financial crisis,
2. the recent dramatic slowdown in the rate of growth in emerging markets (especially in China) and recession in others (such as Brazil),
3. the danger that the world may now be drifting toward a new global financial crisis,
4. the suspicion that there may be some underlying and more fundamental negative forces at work in the world economy today that may make slower world growth the “new normal” and, even more ominously,
5. that the world may actually be facing secular stagnation.

2. Economic Growth is Slow and Uneven in Advanced Countries

Since the end of the 2008-2009 recession, the U.S. growth rate averaged 2.2 percent per year and is forecasted to be 2.6 percent in 2015 and 2.8 percent in 2016. While Europe and Japan would probably be satisfied with these growth rates, the United States is not. The reason is that the recovery was not rapid enough to bring the United States back on its long-run growth trend line following the recent deep recession. It is true that the U.S. rate of unemployment declined from the high of 9.6 percent in 2010 to 5 percent in 2015, but in the meantime more than five million discouraged workers (4.1 percent of the labor force) have dropped out of the labor force and so are no longer counted as unemployed. Furthermore, median family income is about $3,000 lower today than in 2007.

Europe fared worse than the United States. Euro Area growth averaged only 0.7 percent from 2010-2014 (the Euro Area even fell back into recession in 2012-2013) and growth is forecasted to be only about 1.5 percent in 2015-2016. The situation was even worse in Japan (which was in recession in 2011 and 2014) and growth is now forecasted to be less than 1 percent for this year and the next. Britain and Canada fared better, with growth rates since the end crisis approaching those of the United States.
The United States and other advanced nations responded to the “Great Recession” by rescuing banks and other financial institutions from bankruptcy, slashing interest rates, introducing huge economic stimulus packages, making very large injections of liquidity, and also undertaking heavy nontraditional expansionary monetary policy (quantitative easing or QE). These efforts, however, only succeeded in preventing the recession from being deeper than otherwise and from making the subsequent recovery even slower than it was. Be that as it may, growth remains the most serious economic problem facing most advanced nations today.

Some experts advocate additional (new) big stimulus packages to speed up growth in advanced countries, but these may not succeed to the extent that today’s slow growth is due more to the slowdown in productivity and in the rate of innovations than to inadequate aggregate demand. But we will return to this topic later.

3. Growth Slowdown in China and Recession in Brazil

The economic crisis in emerging market economies started as a result of contagion as the recession-affected advanced nations sharply cut imports from and the flow of investments to emerging markets. This was one reason for the decline in China’s previous spectacular growth. India’s growth rate also declined, while most other large emerging economies (Russia, Turkey, Mexico, and Brazil) face recession.

But the reduction in China’s growth rate is even more the result of its effort to restructure its economy toward more internal demand and a service economy rather than relying on continued export growth and on heavy domestic investments, as in the past (the former because it is no longer sustainable and the latter because of the setting in of the dreaded diminishing returns). In the process, China’s demand for primary commodity imports from other emerging markets (especially Brazil and Africa) declined sharply. This caused an even greater growth slowdown in emerging economies than the decline resulting from the recession in advanced countries.

As the demand for their primary exports declined, the currencies of emerging market economies sharply depreciated or were devalued, thus making the servicing of their previously accumulated heavy financial debt and dollar borrowings unsustainable. Emerging market economies are now experiencing large net financial outflows, which exacerbate their economic problems even more. Thus, Brazil, which a year ago was expected to have slow growth, is now in a deep recession, with a decline of its real GDP expected to be as high as 3% this year.

Some emerging market economies are now in need of quick and substantial financial assistance in the form of loans from the IMF and other forms of financial assistance in order to avoid even deeper financial and economic problems. Financial assistance is also needed to help them restructure their economies away from excessive reliance on exports of primary commodities and toward their service and manufacturing sectors (as China is doing), so that more of their future growth would be generated endogenously. But, as China is finding out, this is not easy to do, because it can lead to a further slowdown in growth during the restructuring process, as the costs are incurred up-front while the benefits only come gradually over time.

4. Is the World Drifting Toward a New Financial Crisis?

We have had global (or nearly global) financial crises in 1987, 1992, 1997, 2001, and 2008. Before almost all of these crises, advanced nations adopted powerful (and often excessive) expansionary monetary and fiscal policies that temporarily stimulated faster growth by financial excesses that created a bubble, the bursting of which then triggered a crisis and recession. This is the case for the dot-com bubble that led to the 2001 crisis and the subprime mortgages bubble in the U.S. housing sector that triggered the recent crisis. These crises quickly spread from the United States to other advanced nations because of even greater financial excesses in some of these other nations.
Sometimes, we hear (even some experts) say “too bad, the economy was growing reasonably well, but then the crisis came,” not recognizing that some of the previous growth was actually the result of financial excesses (i.e., purchased by the economy being on steroids). Thus, in measuring the nation’s average growth rate over a period of time it is important to also factor in (include) the recession year(s). This leads to the question “is the world drifting toward a new global financial crisis?”

A new financial bubble may, in fact, be in the making. With official interest rates near zero and real rates negative (as they are now), investors, in search for returns, are likely to undertake “excessively” risky investments. This generates a new bubble, the bursting of which can trigger a new crisis.

Continuing to use expansionary monetary and fiscal policies when growth is slow, not because of a cyclical reason (i.e., inadequate demand) but rather because of structural problems (such as the slowdown of innovations and productivity), are self-defeating because they may lead to financial excesses (bubbles), and eventually to a financial and economic crisis. Nations should adopt appropriate regulations and avoid pursuing “artificial” growth by financial excesses.

Regulations, however, cannot prevent all crises because the next crisis will most likely be different from the recent crisis or previous ones. The question is not whether or not we will face a new financial crisis, but rather when it will come. There will always be crises.

What appropriate regulations can do is trying to avoid some crises and reduce the severity of others. This can be accomplished by putting in place appropriate procedures, measures, and reforms (such as the Euro Area’s Banking Union being created and avoiding having banks “too big to fail”). In the present situation, it is also important to remember that most of our economic and financial weapons and ammunitions have already been used to fight the recent crisis, and so they not be available to fight the next crisis when it comes.

But there is a totally different view that the greatest danger facing the world today is not simply another financial crisis, but rather, and more ominously, stagnation for the foreseeable future, which could only be averted by huge fiscal stimulus. We will examine the merit of this position next.

5. Is Slower Growth the New Normal?

The above is a crucial and fundamental question. Let me reword and extend it before attempting to answer it, as follows. Are there longer-run forces at work in the world economy today (besides the shorter-run cyclical forces related to the recent global financial crisis and great recession) that are causing a general and protracted slowdown of growth in both advanced and emerging market economies? Is this one of the reasons for the severity of the recent recession and for the anemic recovery, and for the persistence of slow growth six years after the crisis -- despite the adoption of powerful expansionary monetary and fiscal policies during the past years. More broadly, is this what is preventing the world from going back to its pre-crisis growth levels? Is slower world growth the inevitable “new normal?”

Financial investors and those working in Wealth Management who provide better answers to the above crucial questions and who more clearly understand the challenges facing the world economy today will surely be more successful than others in managing their financial affairs and business now and in the future.

There is some evidence that the growth of advanced countries is slowing down because of the slowdown in productivity growth. More ominous would be if this slowdown in productivity will continue for the foreseeable future -- as some growth experts believe. According to them, the most dramatic and spectacular inventions (the combustible engine, electricity, the PC, the Internet, etc.) have already occurred and so new inventions are not likely to lead to as high productivity growth as in the
past. If true, this can also explain, at least in part, the severity of the recent crisis and the slow recovery and growth that followed. It also spells major troubles for the future growth of the world economy because innovations are the main drivers of productivity, and hence of world economic growth in general. Other growth experts disagree with such gloomy predictions.

Independently of who is more nearly correct, it is crucially important to encourage innovations. Thus, in 2014 the European Union introduced “Europe 2020” with aim of making Europe the best place to innovate and to invest, and hence encourage economic growth. Innovations can be encouraged by education, the commercial applications of basic research, investment subsidies, and so on. But is difficult to anticipate how successful these policies will be.

It is easier to identify the fundamental reasons for possibly slower growth of emerging market economies in the future. These are:

1. the rapid slowdown in population growth and in the growth of the labor force,
2. the convergence hypothesis (i.e., it easier to grow when starting from a very low base (when there are many technologies still available to be copied or adapted than later on),
3. related to the convergence hypothesis is the so-called “middle-income trap” (i.e., the difficulty of emerging market economies taking off to reach advanced-economy status), and
4. in today’s highly interdependent world, a slowdown of growth in advanced countries would inevitably lead to a slowdown in the growth of emerging economies (and vice-versa).

6. Is the World Facing Secular Stagnation?

There is a significant minority of economists and experts who believe that the most serious problem facing the world economy today is not the risk of another global financial crisis but, more ominously, the danger of secular stagnation in advanced nations and growth recession in emerging markets -- and that these could be prevented only by a huge and coordinated fiscal stimulus on a global scale.

The evidence that these economists and experts provide for their views is that growth is slowing down dramatically all over the world. In advanced countries because of the slowdown in technological advances and inventions, and in emerging market economies because of both the slowdown in advanced countries and as a result of dramatic reduction in China’s growth. China’s rapid growth slowdown leads to deep cuts in its imports of primary commodities from other emerging markets as well as in other imports from advanced countries. This slows the growth of emerging and advanced economies alike, which in turn can lead to a domino effect of downward spiraling growth for the entire world economy -- at least so the argument goes.

All this would be happening despite huge traditional and non-traditional (QE) expansionary monetary policies in all of the leading advanced and emerging market economies since the time of the recent crisis. With low or negative current and expected inflation and real interest rates in most advanced economies, it is clear that monetary policy would be powerless to prevent the downward spiral of growth and stagnation if they came to pass. The only way to avert secular stagnation, according to the pessimists’ view, is by a coordinated, massive injection of public expenditures (fiscal stimulus) on the global scale directed at building and repairing infrastructures. These are supposed to increase productivity and growth, and pay for themselves.

Is this diagnosis of the problem correct and the policy solution advocated likely to be effective? That the world may be facing secular stagnation is possible, but by no means certain. For example, the strong prediction of stagnation in the United States right after World War II turned out to be completely wrong! But even without secular stagnation, isn’t the world heading toward another global financial crisis that
a massive fiscal stimulus could help prevent? But have most nations not done just that during and after the recent great recession, and yet rapid growth did not ensue?

Those predicting secular stagnation and advocating massive public expenditure to prevent it are quick to respond that the fiscal stimulus provided by most countries during and after the recent crisis were not large enough to do the job, and that it was directed primarily to welfare expenditures rather than to infrastructure investments. In any event, bigger, much bigger, fiscal stimuli are advocated. But the U.S. public debt rose from 64 percent of GDP in 2007 to over 100 percent today. How high must the United States and other nations be prepared to push their public debt to fight possible stagnation? And what would happen if the massive public works undertaken were not to lead to increases in general (national) productivity to justify them? Hasn’t Japan’s tried this for past two decades to no avail (its debt is now 246 percent of GDP)? Will markets continue to finance these huge larger debts at reasonable rates indefinitely?

The answer given by those who push for the above plan of action is “we face stagnation now and the plan of action that we advocate is the best way to deal with it.”

7. Conclusion

After nearly six years from the end of the deepest global financial crisis of the postwar period, growth continues to be slow and uneven in advanced countries and falling in most emerging markets. The dangers facing global economy today are greater than at any time since collapse of Lehman Brothers in September 2008. There is even the risk that the world may be drifting toward a new global financial crisis in the background also of possible secular stagnation. There are conflicting opinions as to how the world could best respond to these dangers.

References

Any technicians wanting to analyse the US stock market have a host of indicators at their disposal. For example price data can be traced back to the early nineteen century, thereby providing a historical perspective not available to other markets. Analysis is therefore possible during periods of inflation, deflation, crisis and prosperity. Moreover, statistics for equities are available on a broad front, from volume to market breadth, sentiment and sector rotation statistics.

When examining trends in currency markets the dataset is far more limited. It’s true that sentiment indicators are published, but apart from that, analysis is essentially limited to price data and statistical manipulations thereof. Not even volume is available, at least so far as interbank trading is concerned. My objective here is to use widely followed technical indicators in tackling this problem, but to also broaden the analysis by introducing different approaches capable of warning us of latent strengths or weaknesses in the technical position of the US Dollar Index. At all times we must recognize that whatever indicators or approaches are being adopted we are always dealing in probabilities, never certainties. Also, it’s important to start form a long-term or primary trend aspect in order to gain perspective, late on drilling down to shorter-term indicators.

This article is meant more as an educational one rather than a forecast. Since this article was submitted, the Dollar Index has broken out on the daily charts. However, the monthly charts still require confirmation with end-of-month November data.
Analysing the Primary Trend

Chart 1 show a typical objective approach using standardized long-term technical tools aimed at identifying the direction of the primary trend. At the end of October the US Dollar Index was in a very fine state of technical balance. The bull market was intact because the Index was above its 12-month MA and the long-term KST was above its. However, it was also very apparent that it would not take much in the form of downside action to reverse this trend, as the KST had already started to roll over. For those unfamiliar with the KST it is a long-term smoothed momentum series. Other smoothed long-term momentum series, such as a 24,10,15 stochastic or a MACD could easily be substituted, though the results would probably be less robust. The formula for the KST is featured in Exhibit A.

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<td>6-MA</td>
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</tr>
<tr>
<td>12-month</td>
<td>6-MA</td>
<td>x 2</td>
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<td>24-month</td>
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Developed by Martin Pring, Know Sure Thing (KST) is a momentum oscillator based on the smoothed rate-of-change for four different time frames. It measures price momentum for four different price cycles. The formula of KST is a weighted average of four different rate-of-change values that have been smoothed.

Short and Intermediate Trends

Recognising that the situation is finely balanced we need to drill down to weekly the weekly charts in order to observe the price action in greater detail and assess the direction of shorter term momentum. At the end of October the Index had broken above its correction trendline, as shown in Chart 2. For momentum monitoring short- and intermediate trends we turn to a stochastic using the 12/15/10 parameters and the MACD respectively. Both were bullish.

Chart 2 - US Dollar Index and Two Momentum Indicators
The Euro Weighting Problem

One of the problems with the Dollar Index is that 58% of its weighting comes from the euro, which means that this currency has a huge influence on the Index. This can be misleading because the dollar is really the sum of numerous cross rates, such as the dollar/yen, dollar/pound etc. One way of broadening the analysis is to calculate a diffusion indicator monitoring a basket of cross dollar relationships that are above their 40-day MA's. Other time spans could be substituted but, as Chart 3 shows, this one works fairly effectively. Remember, we should never strive for perfection in technical analysis because it does not exist. Rather we should aim for consistency, where failure is definitely an option, but where an indicator works reasonably well most of the time and in most situations. The solid arrows point up when the diffusion series crosses through its (red) 10-day MA the Index usually experiences a trend reversal. The dashed arrows and the ellipse remind us that it is far from perfect. However, its use does put the odds on your side. For those readers interested in following the progress of this series it can be plotted for free at StockCharts.com. At the end of October the indicator was in a bearish trend but close to a neutral reading. It would not take much in the form of strength therefore to reverse its trend to the upside. Moreover its subdued position would most probably support an upside breakout in the Index itself.

The Dollar Index versus Dollar Sympathy Indicators

When the Dollar Index enters an extended trading range as was the case in 2015 it is certainly possible to obtain clues as to its likely resolution from the action of momentum indicators or oscillators. However, it is also helpful to consider third party and intermarket indicators. I call them dollar sympathy indicators because most of the time they move in the same direction as the Index itself. There are two ways in which these intermarket relationships can be used in conjunction with dollar analysis.

1. When the dollar is in an established trend these indicators should be in gear with the Index. This characteristic tells us that the dollar’s prevailing trend is likely to continue. However, when one or more of these series fail to confirm a new dollar high or low this puts us on notice of a possible reversal.

2. Secondly, when the Index experiences some ranging action, as has been the case since March of this year, a breakout in one direction or the other by one or more of the sympathy indicators usually provides an early bird warning of the direction in which the Index itself is likely to go.
Some of these indicators are featured in Chart 4, where you can see that broad swings in their fortunes generally correspond with those of the PowerShares US Dollar ETF (UUP). Generally speaking, when the dollar is rising US stocks outperform the rest of the world. In that respect the second panel features a ratio between the S&P Composite ETF, the SPY, and the rest of the world, as represented by the MSCI Europe Australia Far East ETF (EFA). Note that this ratio peaked at the end of 2014, well ahead of the dollar ETF, which topped out in March 2015.

The third window contains a ratio between US bonds (TLT) versus the Barclays International Treasury ETF (BWX), another US versus the rest of the world relationship. This one also peaked ahead of the UUP in early 2015.

Finally, commodity prices move the opposite direction to the dollar, so the DB Commodity ETF (DBC) has been plotted inversely in the bottom panel. Note that throughout the last half of 2014 all three indicators moved in gear with the dollar. In each case the sympathy indicators have rebounded from their summer lows and are showing no signs of weakness. Indeed the (inversely plotted) commodity series in the bottom panel has actually touched a new cyclical high recently. If these indicators were showing weakness it would be expected that the Index would resolve its trading range on the downside.

Chart 5 shows two more sympathy indicators. First we see the Bond (Continuous futures contract)/Commodity (CRB Spot Raw Industrials) ratio. This is really the ultimate deflation/inflation relationship. Logic tells us that if the Index is rising this is deflationary for dollar based assets and vice versa. That’s because bonds should rise because they like deflation and commodities ought to decline because they do not. The red and green arrows show that this relationship has a habit of leading the Dollar Index. At the beginning of November it was at a new cyclical high and appeared to be forecasting a firmer greenback.

Finally, the bottom window contains a credit spread i.e. the ratio between the Government (10-year) and Moody’s Corporate Baa yield. Movements in this relationship reflects swings in confidence. This occurs as bond investors are continually changing their preference between safety, in the form of the 10-year yield, and risk, as reflected in higher Baa yields. I find this latter relationship to be particularly compelling since it underscores the fact that the dollar is influenced as much by investor confidence (safe haven status) as anything else. At the end of
October it was right at its 2008-2015 down trendline and looked poised to lead the Dollar Index higher.

**Conclusion**

In conclusion, an objective test of the relationship of the Dollar Index and its 12-month MA and the status of its long-term KST shows that the bull market is intact. However, the price has been in a trading range since March and its resolution will signal whether a new up leg is possible or a reversal to bear market status takes place. The two benchmarks in that regard are 98.5 on the upside and 92 on the downside. If a downside resolution is to materialize we should expect to see some weakness in at least one of the sympathy indicators appear first. Since they were all showing some form of strength at the end of October their message argues for an upside breakout—not a prediction, merely a statement of the probabilities!

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[Image: Chart 5 - The Dollar Index and Two Indicators]

Martin Pring is an honorary member of SAMT and Chairman of PringTurner Capital Group. He is also President of Pring.com, publisher of Martin Pring’s Intermarket Review, which offers a monthly technical synopsis of the world’s principal financial markets.
The 28th annual IFTA conference took place in Tokyo. The conference hotel was located in Shinjuku, one of the busiest neighborhoods of the huge megalopolis that is Tokyo with its population of 13.3 million. Just traveling to the conference, you realize how many things are different from your culture, inviting the visitor to look at familiar things twice. This is what we technicians do: look at things from different angles and think outside the box.

This year’s conference topic was Omotenashi, a Japanese meaning “Selfless, harmonious hospitality”. Indeed, having attended several conferences, it had a wonderful “homecoming” feeling for me, meeting industry colleagues from previous conferences. The Swiss society was represented by Patrick Pfister (SAMT President), Ron William (SAMT Vice President) along with Nico Büchel, Giorgio Sala, Thierry Fivaz and Rolf Wetzer, Ph.D.

The conference offered a wide range of topics, including a panel discussion on the impact of Abenomics, historical aspects of Japanese candlestick charting methodology and other recent trends in the industry. The good thing about the conference is, there is always something for everybody. Beginners and experts found it easy to follow the presentations.

Where is the market heading and what are the latest developments in technical analysis? Conference attendees got the answers to all sorts of questions, enriching their experience and presenting them alternative views. With “Automated Robotic Trading Systems”, participants were shown how technical analysis can be used. And a Japanese company demonstrated the use of a robot as an alternative human consultant. The first prototypes of a mobile phone could not be taken too seriously as well - I wonder where the industry will be in 10 years from now?

Every conference has some renowned speakers. But where else do you get a chance to talk 1:1 with Gann-expert Connie Brown or the legendary John Bollinger, among others? Apart from meeting leading fund managers, analysts and other industry icons of the industry, it is always an excellent networking platform meeting technicians from all over the world, enlarging your personal network of contacts, exchanging ideas and making new friends.

Those who have not attended an IFTA conference, should do so next year. The 29th annual IFTA conference will take place in Sydney, Australia, with another great group of speakers, topics and a wonderful place to visit. See you there!
Cusp Catastrophe Theory Applied
The Power of a “Pattern of Triple-Descending Price Peaks”

Henry O. (Hank) Pruden, Ph.D.

In the Summer 2013 issue of the Swiss Technical Analysis Journal I introduced the readers to the “Cusp Catastrophe Theory: A Model for Technical Analysis.” In this issue of the SAMT Journal I offer a recent demonstration of the efficacy of that model to predict a recent selling panic in the U.S. Stock Market.

The introductory article in 2013 pointed out that:

“In a pioneering effort, Zeeman attempted to show how the elementary catastrophe, the CUSP CATASTROPHE model, could explain the unstable behavior of stock exchanges. He believed a similar model could be applied to currencies, property markets, or any market that admits speculators. In essence, Zeeman held that all the pertinent mathematical features of a stock exchange could be synthesized into a single concept, the Cusp Catastrophe (see Exhibit 1).”

Near the center of the behavior surface lies the catastrophe model’s most interesting feature, a fold curve or cusp. What this suggests is that there are no equilibrium (turning points) available until the top sheet is reached after a buying stampede or the bottom sheet is reached after a selling panic. Notice that the abstract model shows the behavior surface curving over to a threshold point, after which comes the panic sell-off.

Applications

The Cusp Catastrophe model shines a spotlight upon the importance of price formations immediately before the mark up or mark down “jump” phase. The key chart patterns are triple descending price peaks during side ways top formations and triple ascending price peaks during side ways bottom formations.

The chart of the DJIA (Exhibit 2) illustrates a real-live case of the “triple descending price peaks” in action during the summer months of 2015. Those peaks in price are circled 1, 2 and 3 on the chart. They depict that a “dissipative gradient” (or “dissipative force”) of mounting bearishness was winning the contest between the bulls and the bears during the summer of 2015.
Henry O. (Hank) Pruden, Ph.D. is a Professor of Business and Director of the Technical Market Analysis Program at Golden Gate University, San Francisco, CA, USA. He is also a Chairman of the Technical Securities Analysts Association of San Francisco (TSAASF). Hank is an honorary member of SAMT.

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What followed was the “catastrophe jump” downward as seen in the vicious vertical sell off during late August 2015 as the DJIA plunged downward 2,000 points within the space of three days. The triple descending price peaks had led the DJIA to the precipice, the cusp. As the model explained, afterward came the “catastrophe jump” or “selling panic.”

I believe that this case study of the DJIA clearly spotlights the power of the “Triple Descending Price Peaks” formation after a trading range as a predictor of sharp sell offs.

The pattern of descending price peaks that occurred in this case is reminiscent of the right-hand side of the classic price-reversal pattern analysis employed by technical analysts. For example, within the classic head-and-shoulders top formation, the technical-analyst-trader is counseled to enter a short position on the third rally or pullback to the neckline of price support. In sum, the Cusp Catastrophe Model reveals the “triple descending peaks” pattern is a powerful technical tool. Technicians tend to overlook and underappreciate the power of a pattern of triple descending peaks as a tip off to weakness and a harbinger of panic.
When I was first involved in technical analysis in the 1960s, looking for patterns in the price charts was the basic means of analyzing stocks or any other, freely-traded security. I learned point-and-figure first from the Abe Cohen and Earl Blumenthal books on three-point reversal charts, and I learned about bar charts from William Jiler in his 1962 book, “How Charts Can Help You in the Stock Market.” Because there were only hand-operated adding machines for calculators in those days, and no spreadsheets, I cranked through rolls of paper with moving average calculations of breadth figures and index prices but never seemed to find anything useful. I truly hated moving averages for the work they created and the limited and always late signals they gave when they crossed or turned.

It wasn’t until 1970 when Jim Hurst wrote his famous book on cycles that I considered the use of moving averages with any seriousness. At that time I became a member of the Foundation for the Study of Cycles, which had been formed in 1941 by Edward R. Dewey, an early chief economist to President Hoover. Becoming more interested in and studying the possibility that markets have some harmonic components, I spoke several times at their seminars on the Kondratieff 50+ year cycle and the four year cycle in stock prices. But Hurst’s book was an eye-opener because, it showed for the first time how to analyze prices for cycles and even more exciting, how to make money using them. Hurst taught an educational course on his method in seminars across the U.S., and I attended one in Washington, DC to learn first-hand how his method worked.

Why be interested in cycles? Aside from the obvious purpose of finding a way to make money, if cycles existed in price data, I could predict as well as react by using them. Technical analysis doesn’t usually predict. Classically, it establishes the entry point in a trade or investment as a trigger to a previously recognized set up, and the exiting from a trade is rarely done as the result of a target or predetermined time being reached. Both entry and exit are performed as a reaction to how prices behave. It’s a mistake to suggest that technical analysts “forecast.” They don’t. They only gauge whether a particular security is attractive and wait for the price or an indicator to “breakout” of a pattern. Cycles, on the other hand, offer the possibility of actually predicting future price action. Cycles are strictly mathematical whereas most technical and fundamental indicators, until recently, are not. It seemed to me that, if valid, cycles could possibly beat the system with some precision.

Cyclicality in Prices

Both Hurst and Dewey theorized that the market is a composite of various length cycles. They believed that trading market prices were especially susceptible to cyclical effects but were unable to arrive at a reason. A reason for the existence of cycles isn’t absolutely necessary to believe in what is observed empirically though it is certainly more comforting to know “why” cycles exist. If their existence can be demonstrated empirically, however, the “why” can come later. The sun rose and set every day without explanation for millions of years, but only in the past 2,000 or so years has its transit been understood. Despite his lack of solar knowledge, the caveman could still accurately predict with reliability that
the sun would rise the next morning. Thus, in trading markets, if cycles exist, we don’t know why, but still we can use what we have observed to analyze and predict.

In market price data, at present I believe cycles are only tendencies, not facts. If cycles exist in market data, they are not very precise. Were they precise, they would have been quantified many years ago. However, there does seem to be a tendency toward periodicity in market prices. That means highs and lows have a habit of occurring at somewhat regular intervals regardless of their strength and underlying trend.

Cycles

Cycles can be defined mathematically using trigonometric functions, specifically the sine and cosine formulas. For this reason, the mathematics of discovery are well understood, and cycles can be pulled out of time series data with ease using Fourier transforms, spectral analysis, or digital filtering. Why don’t these methods work in the stock market? Because while stock prices may have a constant periodicity to their price action, the amplitude of these oscillations is not constant, and most mathematics-based trigonometric functions assume constant amplitude. Thus the mathematics of cycles is unable to recognize the characteristics of ideal harmonics in market data. Figure 1 displays an ideal cycle as defined by a sine curve.

A harmonic, time-series cycle is defined by four variables: the period, the amplitude, the phase shift, and the vertical shift. The shifts refer to different cycle starting points; the amplitude is the height of the cycle from bottom to top; and the period is the distance in time from one low to the next. In the stock market, the period between cycles is of most interest to traders, and the amplitude, the projected peak or trough level, is of interest only to a limited extent because it is volatile and irregular.

When a cycle is duplicated to the right (or “forward” in time) by half a cycle period, it behaves identically to the original cycle. This new cycle is called a “Forward Line.” When carried back and overlaid over the actual cycle, the cycle plotted forward by half the cycle period makes the Forward Line appear as a mirror image of the actual cycle. However, in cycle time, its direction and values are almost always opposite from the actual cycle. In Figure 2, you can see that the peaks and troughs in the Forward Line

(dashed line) appear exactly at the same levels as the actual cycle peaks and troughs (solid line) but halfway through the cycle. You can also see that when the cycle moves through a Forward Line, it does so at the halfway point of the distance from top to bottom or bottom to top. This implies that when a price breaks through its Forward Line, it will travel a distance equal to the distance it traveled to reach the break point. The breakthrough thus establishes a price target for the next cycle.

Of course, such analysis assumes a flat market without the effect of a large cycle or trend influencing the relative locations of the amplitude and crossovers. Figure 3 shows how the Forward Line can behave during a strong advance.

Notice in Figure 3 that if the trend is strongly upward, the price never crosses the Forward Line and thus a target is not possible to calculate. We can use this characteristic in real prices not only to show that a trend is very strong but also to use the Forward Line as a sell stop level because breaking it will indicate that the trend is no longer strong.

All analysis of cycles includes analysis of the next longer cycle or the underlying trend. It is the direction and strength of that trend that I want to know in order to profit from cycle analysis. I am interested in the specific cycle only in so far as it tells me what its underlying trend is doing and whether that underlying trend’s strength is shifting. I do this by looking at:

1. The comparison of cycle peaks and troughs. The most recent cycle low level compared to the previous cycle low indicates a trend. A succession of higher lows indicates the trend is upward, and the breaking of a prior cycle trough indicates that the trend is reversing downward. In a downward trend, the succession of lower cycle peaks indicates a downward trend. A period of irregular peaks and troughs indicate a flat trend and the likelihood that a technical pattern is forming.

2. The translation of the cycle. Translation refers to where the peak in the cycle occurs between each low. All stock market cycle periods are measured from low to low. The peaks can occur at irregular intervals based on the underlying trend. If the trend is
upward, the peak is to the right of the center of the cycle. You can see in Figure 3 how each cycle peak is slightly to the right of the cycle center. This skew is called “translation” and is useful in determining if the underlying trend is still healthy. If the peak is beyond the halfway point in the cycle, the translation is to the right, and the trend is still upward. If the peak within a cycle occurs early in the cycle, it suggests that the underlying trend is downward. How would you know the peak was early? Only by seeing the price break below the previous cycle trough in the first half of the current cycle. At that point it is unquestionable that the underlying trend has turned downward. By watching translation, I can thus reinforce my understanding of the trend direction and any changes in it. The opposite interpretation is valid during a downward trend where the sequence of cycle peaks is lower. An upward break of the most recent peak indicates that the longer-term trend is now upward.

3. The possibility of an inversion. In the stock market, cycle periods are fairly steady and troughs occur on schedule, but troughs don’t always occur at the expected periodic interval. Sometime peaks occur when a trough is expected. This is called an “inversion” and is relatively rare. It occurs when a longer-term underlying trend is rising but about to reverse direction. It is often accompanied by an ADX peak. An inversion is a frustrating event because it brings into doubt my analysis of the cyclical periods. I’ve found that continuing with the original interpretation of cycle period and assuming that the sequence of troughs will return to the earlier schedule is the best solution. It is unusual for an inversion to upset the rhythm of the cycles. Inversions cannot occur at troughs.

4. A price target. In an upward trend, if the price target is established and the next peak fails to reach that target, it implies that the upward trend is slowing in momentum. If the target is exceeded by a large margin, I know that the underlying trend is accelerating. This will usually be accompanied by an upturn in the ADX. In a downward trend, the relationship of the target price and the trough has the same implications as in an upward trend. Failure to reach a downside target suggests the trend is turning upward.

Figure 3 – Forward Line in a strong advance
and exceeding the target is a sign of downward acceleration. As in the upward trend, if the target is exceeded, the ADX will likely turn upward.

**Plotting and Understanding Moving Averages**

Most of technical indicators require a period length. The MACD, Stochastic, CCI, DMI, ADX and ATR, etc., all require a length over which each is calculated. Different lengths in indicators have different results. It is important that the length of an indicator is related to the price action of the stock. Most indicators have their standard lengths, but in many cases these standards were not developed by any investigative approach. Most of the standards were developed before the advent of the computer and because they were easy to calculate on an adding machine. I’ve found instead that indicator lengths should be directly related to the cycle period of the prices being investigated. It is therefore imperative that I have a means of quantifying a cycle period. Underlying all my studies is recognizing what cycles are occurring in the market, and to profit from them, I need to understand how to calculate cycle periods.

**Cycle Period Calculations**

There are three methods of determining cycle length. The first is the use of moving averages, the second is by trial and error, and the third is by the use of linear regression.

Moving averages dampen the minor fluctuations in price series data and allow the longer trends or cycles to appear more clearly. They are thus the primary means of observing and calculating cycle periods.

An average is the sum of numbers divided by the amount of numbers in the sum. Thus a 25-day average of closing prices is the sum of closing prices over 25 days divided by 25. It is also called the “mean.” A moving average is that same average calculated each new day and drawn on a price graph along with the price. Figure 8.4 shows a daily plot for the
ETF (Exchange Traded Fund) of the Standard & Poor’s 500 Index (symbol = SPY) over a period just short of a year.

If we think of the market as a composite of various length cycles, we can use the characteristics of moving averages to our advantage. Because moving averages reduce the effect of fluctuations shorter than their length, a 25-day moving average reduces the short-term fluctuations or cycles of 25-days and less, and emphasizes the longer cycles in the price data. I chose the 25-day moving average for a reason. At this writing, there appears to be a 25-26 day cycle in the SPY. The moving average in its capacity to dampen out fluctuations of less than its length reduces the 25-day cycle fluctuations to a line on the chart with a much longer cycle identified by the low May and November. This longer cycle period is approximately 122 days, a multiple of the 25-day cycle by five. But we are interested in the shorter cycle in this discourse and can disregard the longer cycle for now.

Plotting a moving average coincident with the most recent price, however, is not strictly accurate because the average price actually occurs not on the most recent day but on the average day sometime in the past. More realistically, a moving average should be plotted at the mean day as well as the mean price. In the 25-day moving average, think of the 25 days as a box that is 25 days wide and so many points high to represent the price range. The moving average should be the average of both the height (the price) and the width (the time). The plot should be at its horizontal average in the middle of the box 12.5 days earlier than the present, and the price vertically at its average. Because I can’t plot at 12.5 days past, I must round up the number of days to 13. This adjusted plot is called a “centered moving average” to distinguish it from the more common moving average normally seen in price charts.

**Figure 5** is a daily plot of the SPY with its 25-day centered moving average plotted correctly. Notice that because the average is a centered moving average in time as well as
price, the average itself tracks almost exactly the price curve. It turns when the price curve turns, peaks when it peaks, and troughs when it troughs. The major problem here is that its last plot is 13 days ago. Because a 25-day moving average is late to turn anyway because it takes roughly 12 days of numbers to change its direction, the value of the centered moving average is limited to being an historical indicator for trading market turns. But Hurst found some interesting aspects of the centered moving average that I will discuss as I move along toward the construction and use of the Forward Line.

Figure 6 shows SPY over same period as shown in Figures 4 and 5 and displays its center line and its Forward Line. This is a chart similar to the ideal cycle plotted in Figure 3 only with real prices and a slightly upward slope. Notice that the Forward Line parallels the centered moving average, which represents the actual cycle in SPY, and peaks and troughs at the same level as the cycle peaks and troughs in the real cycle. Notice also that the Forward Line extends into the future ahead of the last reported price. We now have a moving average that actually leads prices and tells us something about the future rather than just about the past. Finally, notice that the Forward Line acts as a stopping point, a support or resistance level, to prices. In December the price bounced directly off the Forward Line; in early October it also bounced off the Forward Line, and all the corrections in the period from June to September were contained above the Forward Line.

Buy and sell crossover signals occur when price breaks through the Forward Line. The first of these signals in Figure 6 occurred in April when the price broke below the Forward Line. This break didn’t indicate that the trend was reversing, only that the upward trend had ended. Eventually the price broke the earlier low and the trend turned downward. In June during the decline, the price attempted to break above the Forward Line but failed. In its attempt to break the Forward Line it did break above a previous high, thus suggesting that the downward trend had ended. Finally it broke upward through the Forward Line and remained above it until it broke its rising Forward Line and a previous price trough in October. At this point traders should have sold. The subsequent rally up through the
Forward Line failed to reach new highs, suggesting that the trend was now flat, and in late October the price again broke below a previous low as well as its Forward Line, indicating a new downward trend. In December the price broke up through its Forward Line and several days later broke above a prior peak, thus establishing an upward trend. Notice that on the last day of the year, just before an enormous upward trend, the correction failed to break below the Forward Line. In this respect, the Forward Line acted as a brake to the decline.

As for the usefulness of projections using the Forward Line as a halfway point, notice that the earlier high in March suggested a large decline was likely based on the distance from the Forward Line projected lower. This decline did not occur, and the correction below the Forward Line was small but projected only a small advance above the Forward Line for the next rally. The rally then fell far short of its price objective suggesting that the correction earlier indicated was about to occur.

As for the particulars of trading with the Forward Line, you will notice that the price often breaks the line for only a day and then reverses. The trading method of handling these false breakouts is to place a “fudge” factor or filter at the crossover day’s high or low on the following day depending on the direction of the Forward Line break. If that price plus the fudge factor is broken, the breakout is likely valid and the trend has changed. Such a method would have kept you from selling prematurely in April until the final break in early May at a higher price. It would have kept you from buying on the upward breakout of the Forward Line in June and given you a better price later in June, and depending on the amount of the fudge factor might have prevented a premature sale in October on the first downward crossover.
I think it is obvious that the Forward Line has value in confirming trend direction though I admit it is difficult to profit from Forward Lines alone. As a background trend-check, however, it is superb. Generally, when the price is above the Forward Line, the trend is upward, and vice-versa when the price is below the Forward Line. Because the signals occur late, they are not particularly useful by themselves except as confirmation of other signals. When I combine the Forward Line with the DMI and ADX, however, I get a much clearer and immediate picture with actual action signals. For example, an ADX low, which very few analysts use as a signal, is excellent in pinpointing a continued directional move based on whether prices are above or below their Forward Line. If above, and the ADX turns upward, the price will likely accelerate upward, and conversely when the price is below the Forward Line, and ADX upturn is an excellent short sale.

A moving average dampens out any cycle lesser than its length, and the raw daily data include all cycles. Thus, if we subtract the moving average from the raw data, we get a horizontal line with daily oscillations about it. This is shown in Figure 7 as a ratio of the daily data to the 25-day centered moving average. The moving average plot must be centered; otherwise the ratio will not represent the actual figures for specific days and will skew the results. This chart now displays all the cycles at or shorter than 25 days. I have drawn vertical lines at obvious low points in the chart to show the periodicity of lows in the SPY prices. The distance between each low is 25 days with a few days error at some troughs. This exercise then shows that the SPY has a tendency to bottom every 25 days. With that knowledge we can construct a Forward Line as well as use the 25-day period (or its half-cycle period of 13 days) for the period calculations in all our other technical indicators such as the DMI and ADX. This is the great value in interpreting cycles.
The other method of trial and error uses a moving average and Forward Line placed half the length of the moving average forward of the current price. By adjusting the moving average length until the Forward Line just traces the highs and lows of actual prices in the past, I get the correct length to use in the moving average and other indicators. For example, using the same chart of SPY, by adjusting the length of the moving average from 25 to 29, the picture in Figure 8 changes considerably and many of the false signals no longer occur. This moving average now projects the Forward Line 15 days ahead. To simplify calculations, I always use an odd number for the moving average because the mid-point is always a whole number. Thus with a 25-day average the mid-point is day 13, and with a 29-day moving average, the mid-point is day 15. The formula for the Forward Line advance is $\frac{1}{2}$ the moving average plus 0.5.

Finally, the third method is to use the figures for lows generated in Figure 7 by observation and quantifying them in a linear regression formula that projects into the future the next series of cyclical lows and their probable error. This method I described in detail in the Journal of Technical Analysis (then known as the Market Technician Association Journal) in 1990 and is too lengthy to cover here.

**Conclusion**

When trading price trends, it is important to be able to quantify several necessary items. The first is to quantify the trend itself. The Forward Line provides a reliable way to do that. Second, all technical indicators require a length calculation in their makeup. The length can be arbitrary or more logically the length can be related to the trading cycle of interest. Cycle analysis provides this information. Finally, while there are more sophisticated methods to be used with cycles, the Hurst method and the Tillman method being the best, I prefer to use cycles only in the general sense because of my skepticism about the precision needed but lacking in cycle analysis.

**Endnotes**

2. Blumenthal, Earl, *Chart for Profit Point and Figure Trading*. Larchmont, NY: Investors Intelligence, 1975.
As breadth indicators are a tool, used by the technical analysts, aimed to evaluate the level of participation of the single stocks to the market movements. There are several types of breadth indicators most of which measure, different ways, the number of stocks which trend is rising or falling.

Breadth indicators are valuable barometers of market sentiment, bullish if the indicator is showing positive values, bearish if negative. It is then possible to detect divergences between the indicator and the index price action: an up-trending index accompanied by a lack of participation in the universe of its components reveals an increasing fragility and the trade could soon fade.

A typical breadth indicator is the NYSE bullish percentage, developed by AW Cohen back in the 1950s, based on the trend status of the point & figure charts to determine the number of up-trending stocks in the market. The percentage of bullish stocks measure in this case the market participation. Since then, many variations have been developed, such as the percentage of stocks above certain significant moving averages, the ratio between the stocks making a new year high and those making a new low, the proportion between advancing and declining stocks. Other very popular indicators consider traded volumes by comparing advances and declines to the related amounts of transactions.

We could develop such indicators infinite ways, it just depends on the concept we want to apply.

Through this study I want to analyse the cyclical position of the market at short term and compare the readings of the index to those of its components. In order to define the cyclical position, I consider a normalized momentum indicator with a speed of one month (20 trading days). For this purpose we can employ a very popular technical tool like the stochastic oscillator. A 20-days SlowD makes to the case.

The stochastic oscillator is a well-known momentum indicator developed by George Lane. The oscillator can range between 0 and 100, the readings depending on the position of the price versus its highs and lows within the selected time span. This indicator is very versatile – most technicians use it for detecting extremes and so excessive readings – usually overbought above 80 or 75, oversold below 20 of 25, but we well know that often a significant price move can last and the excess persist. Personally, I also use the stochastic oscillator as a trend indicator. I just consider the readings above or below 50 to detect the trend. The following is a possible interpretation of the cyclical stage (see Figure 1).

If we want to analyse the cyclical position of the stocks comprising the index then we need to perform an intensive calculation on that universe. Once we have detected to which cyclical stage each stock belongs, we can classify all them by percentages (see Figure 2).
Figure 1: Stochastic oscillator translated into cyclical stages

<table>
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<th>breakout above</th>
<th>50</th>
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<td>80</td>
<td>Overbought</td>
</tr>
<tr>
<td>breakout below</td>
<td>80</td>
<td>Topping</td>
</tr>
<tr>
<td>breakout below</td>
<td>50</td>
<td>Falling trend</td>
</tr>
<tr>
<td>breakout below</td>
<td>20</td>
<td>Oversold</td>
</tr>
<tr>
<td>breakout above</td>
<td>20</td>
<td>Bottoming</td>
</tr>
</tbody>
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Figure 2 shows the sector indexes and their components in the European market at the beginning of November 2015.

![Sector Indexes and Components](image)

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<tr>
<th>Sectors Europe</th>
<th>Bottom</th>
<th>Rising</th>
<th>O/bought</th>
<th>Top</th>
<th>Falling</th>
<th>O/sold</th>
<th>Index</th>
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<td>17%</td>
<td>36%</td>
<td>25%</td>
<td>18%</td>
<td>2%</td>
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<td>Oil &amp; Gas</td>
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<td>25%</td>
<td>4%</td>
<td>33%</td>
<td>33%</td>
<td>4%</td>
<td>TOP</td>
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<td>14%</td>
<td>18%</td>
<td>59%</td>
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<td>11%</td>
<td>79%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
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<tr>
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<td>29%</td>
<td>13%</td>
<td>0%</td>
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<td>18%</td>
<td>17%</td>
<td>1%</td>
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<td>23%</td>
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<td>18%</td>
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</tr>
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<td>35%</td>
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</tr>
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<td>6%</td>
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<tr>
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<td>35%</td>
<td>38%</td>
<td>19%</td>
<td>0%</td>
<td>O/BOUGHT</td>
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</table>
Figure 3: Cyclical Positions European Stocks

Figure 4: Stoxx600 Return (right scale); % of sectors in rising or overbought mode (left scale).

Figure 5: This breadth indicator is obtained by the sum of the percentages of sector indices in positive stance (Rising, Overbought, Top) minus the bearish percentages (Falling, Oversold, Bottom).
For each index, the percentage of stocks belonging to each sector are shown, according to their cyclical positions. The column on the right indicates the reading for the index. It is not guaranteed that the reading will be the same of its components. If we look at the example of Figure 3, we can see that the cyclical position for the Utilities sector index is overbought, but a good 38% of its components are already topping while 19% are falling. Travel & Leisure and Basic Resources are another interesting case. In the first one, the situation of the index is the result of two groups of stocks, one group still rising, the other already topping. Among the Basic Resources most stocks are falling but the index keeps rising sustained by an extension in the trend of certain components. This example shows how the degree of participation of the single component to the cyclical stage of the index is often different and can anticipate its direction.

A Breadth Indicator could well be implemented by employing this information. Since it would be quite complex to perform a massive backward calculation on the historical prices of the components of an index, I have started to do this considering the sector indexes as market components, as they effectively are.

The Supersector of the European Stoxx600 can be treated as index components since they represent groups of stocks belonging to the index. I then calculated the daily percentages of the cyclical positions in order to create a breadth indicator. The rule that I have chosen is the sum of the percentages of the sectors showing a rising or overbought mode because I judge this as a good way to measure their degree of participation in the market’s momentum. The result is the Figure 4 chart where the indicator is compared to the market index. Readings above 60/70% reflect a bullish stance for the market, a zero percentage in up-trending sectors usually occurs in deep oversold conditions.

Another interesting way to translate this information into a market indicator is to perform a spread between the bullish and the bearish percentages. That is to say, the sum of the percentages in positive stance (Rising, Overbought, Top) minus the bearish percentages (Falling, Oversold, Bottom). The result is an oscillator bound in a -100%/+100% range as shown in Figure 5.

Positive and negative divergence are also an interesting anticipation of a changing trend, which did happen in June and October 2015.

Alberto Vivanti, Independent analyst, founder of Vivanti Analysis in 2003. Alberto is a technical and quantitative analyst since the early 1980’s, with a sound experience as an asset manager with Swiss Institutions. Author of a technical newsletter, lecturer for institutions and instructor in Technical Analysis courses in Switzerland for the IFTA Certification, author of articles and books, has been co-author of a book with Perry Kaufman. Alberto chaired the IFTA conference held in Lugano in 2006. He has been official speaker at the IFTA Conferences 1998 in Rome and 2006 in Lugano. Alberto is Vice President of the Swiss Association of Market Technicians, representing the Chur and Liechtenstein Chapter.
On Saturday and Sunday, 19-20 March 2016, the Geneva chapter of the Swiss Association of Market Technicians (SAMT) will present a two-day immersion course on advanced technical analysis and preparation for IFTA Certified Financial Technicians (CFTe) Level II examination. This course is designed for professionals with market experience who are familiar with the essentials of technical analysis and also for those who would like to use more advanced technical analysis on a regular basis.

- This immersion course is also designed to prepare candidates for the upcoming CFTe Levels I and II exams which culminate in the award of an international professional qualification in technical analysis. The exam tests technical skills knowledge and understanding of ethics and the markets.
- The course will be limited to 5-10 candidates so that each person will receive the same individual level of information and instruction.
- The CFTe Level II exam incorporates a number of questions requiring essay-based analysis and answers. The candidate will demonstrate a depth of knowledge and experience in applying various methods of technical analysis.
- The exam also contains a number of different charts covering one specific market (often an equity) to be analysed, as though for a fund manager or trader.

Who Will Teach the Course?
- The course will be taught by Bruno Estier, CFTe, MFTA; and Ron William, CMT, MSTA who are members of the Geneva chapter of SAMT.
- Collectively, the instructors have 50 years of experience, have technical analysis professional designations, and use technical analysis in their daily work.

How Will it Work?
- The two-day course will begin promptly at 09:00 on Saturday morning. The instructors will begin with an overview of basic technical analysis per the CFTe Level I exam.
- A sample of a CFTe Level II exam will be introduced to familiarize each candidate with each of the three sections and how best to answer the questions in the three hours allotted for the exam.
- Lunch will be served (12:00-13:30).
- The afternoon will focus on all aspects of technical analysis – with particular attention to subjects which will be needed to complete and hopefully pass the CFTe Level II exam.
- At the end of the day – about 18:00 – an overnight assignment will be given – similar to the chart analysis section of the CFTe Level II exam. The class will end at 18:00.
- On Sunday morning, the class will review the overnight assignment before continuing with the materials needed to familiarize the participants with the information needed for the CFTe Level II exam.
- Lunch will be served (12:00-13:30).
- The afternoon will focus on sample CFTe Level II exam questions and sample charts which will be analysed.
- There will be a review of all subjects in the late afternoon before the course ends at 18:00.
- In preparation for the exam, candidates should review the IFTA Syllabus and Study Guide (CFTe Level II). Click on link to download.

Preparation Course for the 21 April CFTe Level II Exam

When:
Saturday, 19 March &
Sunday, 20 March 2016
Where:
Geneva
Hours:
9:00 until 18:00 each day
20 hours of Immersion Training
Class Size:
5 minimum; 10 maximum
Cost:
SAMT Members - CHF 1250
Non-Members - CHF 1450
Early Bird Cost:
SAMT Members - CHF 1150
Non-Members - CHF 1350
Registration Deadline:
Friday, 11 March 2016
Early Bird Deadline:
Friday, 12 February 2016

IFTA Exam:
Thursday, 21 April 2016
Deadline for exam registration:
Friday, 4 March 2016
Complete information:
http://issuu.com/samt-switzerland/docs/samt_geneva_cfte_prep_course_sept_2
Contact:
ronwilliamPR@gmail.com

THE COURSE WILL BE PRESENTED IN ENGLISH
IFTA Certified Financial Technician (CFTe) Program

Examinations
Passing the CFTe I and CFTe II culminates in the award of an international professional qualification in technical analysis. The exams are intended to test not only your technical skills knowledge, but your understanding of ethics and the market.

Level I: This multiple-choice exam consists of 120 questions covering a wide range of technical knowledge, but usually not involving actual experience. In preparation for the exam, candidates should use this Syllabus and Study Guide (CFTe I). This exam is currently offered in English, German and Spanish. It will be offered in Arabic and Chinese at a later date. Download the CFTe I practice (mock) examination.

Level II: This exam incorporates a number of questions requiring an essay based analysis and answers. For this, the candidate should demonstrate a depth of knowledge and experience in applying various methods of technical analysis. The exam provides a number of current charts covering one specific market (often an equity) to be analysed, as though for a Fund Manager.

The CFTe II is a paper and pencil exam that is offered in English, French, Italian, German, Spanish, and Arabic, bi-annually, typically in April and October.

This exam regularly takes place in major cities throughout the world. Additional fees apply to candidates requesting the exam in a non-English language or non-IFTA proctored exam location. IFTA will attempt to accommodate any exam location request.

In preparation for the exam, candidates should use this Syllabus and Study Guide (CFTe II).

Click here to register for the next CFTe II held on 21 April 2016. The deadline to register for this exam is 4 March 2016. No registrations will be accepted after this date.

Curriculum
The program is designed for self-study. Local societies may offer preparation courses to assist potential candidates.

Exemptions
Individuals who have successfully completed IFTA accredited certification programs through: Australian Technical Analysts Association (ATAA), Egyptian Society of Technical Analysts (ESTA), Nippon Technical Analysts Association (NTAA), and Society of Technical Analysts (STA) are exempt and may proceed directly to the MFTA program. See below for more details:

- Individuals who have successfully completed Levels I, II, & III of the Certified ESTA Technical Analyst Program (CETA) through the Egyptian Society of Technical Analysts (ESTA), and have been awarded the CETA diploma, are exempt from both levels and may proceed to the MFTA Program.
- Individuals who have passed Level I and II of the certification program offered by the Nippon Technical Analysts Association (NTAA) and have been awarded the designation of Chartered Member of the Nippon Technical Analysts Association (CMTA) are also exempt from both levels and may proceed to the MFTA Program.

Beginning January 2013, individuals who have passed the STA Foundation and Diploma Courses offered by the Society of Technical Analysts (STA) and have been awarded the designation of Member of the Society of Technical Analysts (MSTA) are eligible to receive the CFTe certification (please contact STA's Administration for procedures) and may proceed with IFTA's MFTA Program. Prior to January 2013, holders of the Society of Technical Analysts (STA) Diploma are exempt from Level II, but must pass Level I (a multiple-choice test) before qualifying for the CFTe certification. Additionally,

- Individuals who have passed the Market Technicians Association (MTA) Chartered Market Technician (CMT) levels I and II on, or before, 28 June 2013, are eligible to receive the CFTe certification. Please submit an application and provide a pass confirmation from the MTA, including dates attained. There is a one-time application fee of $550 US. No future fees or membership requirements apply.

Cost
IFTA Member Colleagues
- CFTe I $500 US
- CFTe II $800* US

Non-Members
- CFTe I $700 US
- CFTe II $1,000* US

*Additional Fees (CFTe II only):
- $250 US translation fee applies to non-English exams
- $100 US applies for non-IFTA proctored exam locations

For more information on the program please email admin@ifta.org.
The Swiss Association of Market Technicians (SAMT) is a non-profit organisation (Civil Code Art 60ff) of market analysis professionals in Switzerland, founded in 1987. SAMT is a member of the International Federation of Technical Analysts (IFTA).

Technical analysis is the study of prices and markets. It examines price behavior on an empirical and statistical basis. It extends to the study of all published information on price trends, volatility, momentum, cycles and the interrelationship of prices, volume, breadth, sentiment and liquidity. A comprehensive understanding of technical analysis requires a knowledge of statistics and pattern recognition, a familiarity with financial history and cycles.

SAMT encourages the development of technical analysis and the education of the financial community in the uses and applications of technical research and its value in the formulation of investment and trading decisions. SAMT has a wide range of activities including:

- Organising meetings on a broad range of technical subjects encouraging the exchange of information and knowledge of technical analysis for the purpose of adding to the knowledge of its members.

- Preparing its members to sit for the Certified Financial Technician (CFTe) exams and the Masters level degree Master of Financial Technical Analysis (MFTA) in Switzerland. These exams are controlled by IFTA.

- Developing CFTe preparatory courses which are given twice yearly in advance of the IFTA exams.
The Swiss Association of Market Technicians (SAMT) is a non-profit organization (Civil Code Art 60f) of market analysis professionals in Switzerland founded in 1987. SAMT is a member of the International Federation of Technical Analysts (IFTA). SAMT encourages the development of technical analysis and the education of the financial community in the uses and applications of the technical research and its value in the formulation of investment and trading decisions.

Benefits of membership:

- The organisation of meetings on a broad range of technical subjects encouraging the exchange of information and knowledge of technical analysis for the purpose of adding to the knowledge of the members.
- These meetings provide an excellent opportunity to meet and socialise with other traders in your local area and thus develop friendly and professional relations among financial market specialists.
- The organisation of presentations from guest speakers from around the world.
- The possibility to sit for the Certified Financial Technician (CFTe) exams at a discounted rate. These exams are controlled by IFTA.
- The “IFTA Update” - the quarterly newsletter from the International Federation of Technical Analysts.
- SAMT is affiliated with the International Federation of Technical Analysts (IFTA). All SAMT members are therefore colleagues of IFTA and are entitled to attend the annual IFTA conference at reduced rates.
- Members receive discounts on a range of products and services related to technical analysis, including software, tuition, seminars and reference books.
- Only fully paid-up members have access to the member area and SAMT events.

Cost of Membership

- Initial one time registration fee of CHF 50.
- Annual membership fee of CHF 150. (The total cost for the first year is CHF 200.)
- The membership cost for each subsequent year is CHF 150.

Membership Payments to Join or Renew

To renew your membership or to join online, log onto our new website.

Join SAMT in Geneva or Zürich for Our Year-End Events

30.November 2015 at 18:00h
Hotel Warwick Geneva
Rue de Lausanne 14, 1201 Geneva
SAMT-members: Free
Non-SAMT members: 25.- CHF
Presenter: Robin Griffiths

1.December 2015 at 18:00h
Hotel City
Löwenstrasse 34, 8001 Zürich
SAMT-members: Free
Non-SAMT members: 25.- CHF
Presenter: Robin Griffiths

Robin Griffiths will deliver his Global Market Outlook for 2016, based on his signature “Roadmap” cycle work, guided by proprietary models of all asset classes and investment styles. His insightful approach includes a synergy of both technical, economic and macro policy overlays.

There will also be social networking and end-of-year celebration drinks after each event. Advance reservations are required. Click here to register for either event.
Swiss CFA Society

The Swiss CFA Society boasts over 2,400 members in Switzerland, against barely 100 in 1996 at inception. It is the largest CFA Institute society in continental Europe. With more than 2,000 candidates taking the rigorous Chartered Financial Analyst® (CFA®) exam in Switzerland each year, the society’s impact on the Swiss investment community is self-evident.

It was the first society of CFA charterholders in the EMEA region to be directly affiliated with the prestigious CFA Institute, which includes more than 110,000 members in 139 countries.

The vision of the Swiss CFA Society is to be a leader in fostering the highest level of knowledge, professionalism, and integrity in the investment business.

www.cfasociety.org/switzerland

Swiss Futures and Options Association

The Swiss Futures and Options Association (SFOA), previously the Swiss Commodities, Futures and Options Association, was founded in 1979 as a non-profit professional association for the purpose of promoting derivative financial instruments, particularly standard futures and options contracts on financial instruments and commodities, to the widest possible audience, and to serve the interests of its members. SFOA serves users of commodity and financial derivatives, as well as professionals, their institutions and the exchanges.

www.sfoa.org

International Federation of Technical Analysts (IFTA)

IFTA is a non-profit federation of 26 individual country societies who individually and jointly dedicate themselves to

• Research, education, camaraderie and dissemination of technical analysis of world markets. The IFTA societies support sharing technical analytical methodology that at its highest level is a valid, and often-indispensable element in the formulation of a reasonable basis for investment decisions.

• Promotion of the highest standards of professional conduct, international cooperation and scholarship between all its Member and Developing Societies within all arenas of technical analysis.

• Providing centralized international exchange for information and data of various financial centers while respecting individual country and Society business practices, legal structures and customs.

• Encouraging the standardization of education and testing of its constituent members in technical analysis, making sure that each individual country’s security analyst licensing, legal and language /communication priorities continue to be individually accepted.

• Fostering the establishment of individual societies of technical analysts without bias in regard to race, creed or religion. It supports the need for maintaining a free and open worldwide markets under normal, and in particular crisis periods.

As a growing bridge of communication worldwide, IFTA remains open to methods of technical analysis, while encouraging the consideration and support of membership for both developing and established societies.

www.ifta.org

Groupement Suisse des Conseils en Gestion Independants (GSCGI)

GSCGI is a group of economic interests formed by specialized independent financial intermediaries who are confirmed professionals in the financial services industry. The group is open to contacts with any person interested in the business of wealth management seeking to promote dialogue with the banking partners and authorities at all levels. Their goals are to:

• Promote contacts between professionals motivated by the same desire for independence, wishing to maintain and develop relationships with counterparts.

• Find common ground for exchanging experiences and ideas, a field where diversity and novelty are prevailing.

• The enrichment of the links that can be forged on a friendly and professional level within a well defined and recognized framework to favour professional consultation and close dialogues.

www.gscgi.ch

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