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CONTENTS

JULY/AUGUST 2014 // VOLUME XLIII NUMBER 6

16

COVER STORY

DEPARTMENTS

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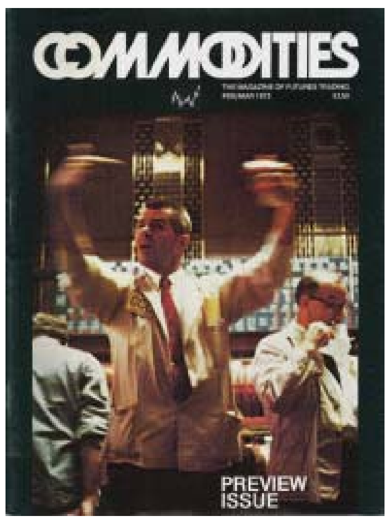
500 issues of *Commodities/Futures*

Anyone who has worked in the futures industry for any period of time knows that it is a pretty small world. This fact was brought home in researching the trader with the GCL badge who appeared on the first ever issue of *Commodities* magazine. According to CME Group, that trader is George C. Lang who, unfortunately, passed away in 2011. The name sounded familiar and in looking at his obituary I found out why: Lang had two sons, Mike and Dan, who also traded on the Chicago Board of Trade and cleared Merchants Trading Company, the first company I worked for in the business.



Merchants was a fun place to work. The firm had a large grain business and cleared many locals. One of my jobs was to deliver statements to all the locals on the bond floor, and Mike and Dan traded in the burgeoning 30-year bond pit. The firm had a family atmosphere and the locals, particularly the ones working in the bond pit, were young guys around the same age as me, which made it fun. Little did I know that 25 years later I would still be in the industry or that there was a connection to *Futures* long before I arrived here.

Looking over 500 issues of *Commodities* and *Futures* magazine is a daunting task, particularly as we had to examine many yellowed issues dating back to February 1972. Sometimes we forget that the technology that puts information so easily at our fingertips is a relatively new.

This was made easier by the talented staff of writers who produced *Commodities* and *Futures* over the years who had the foresight to look back at its work on important anniversaries. I leaned on that work in putting together, "**The time was right,**" (page 40). It was fun to relive some of the major stories from years past. In a sense the industry has been in a constant state of flux since *Commodities* launched. At first it was the explosion of new financial markets and international growth, later it was electronic trading, demutualization and cleared swaps trading.

In "**10 events that molded trading in the 20th century**," (page 16), Darrell Jobman does a superb job in detailing the major events that propelled the growth of futures markets.

Putting together a retrospective issue can be difficult, especially in an industry that has been so dynamic. I recall joking with my former boss Ginger Szala when she wrote in her Editor's Note for our 35th anniversary issue, "In a sense we have been celebrating all year," that I must have missed the celebration. It was much more like a fire drill trying to get all those profiles done, but in the end it worked out well.

Same with this issue — I think — though we undoubtedly missed some important elements. Too much happened during 500 issues not to; but that is the fun part. You, our loyal readers, will undoubtedly point that out to us and we will work to highlight what we missed. We have digitized many of the important stories from the past (check out the story links provided in each article to find these pearls) and are in a larger process of trying to digitize our complete archives, so we welcome your feedback and suggestions regarding stories that had a significant effect on the trading world.

We also introduce The Alpha Pages, which will serve as a larger portal of information on the alternative investment world. Our CEO Jeff Joseph has a frank discussion with Sen. Rand Paul (R-Ky.) on issues of great importance to the trading community (see **Senator Rand Paul**, TAP4). He also looks at an innovative new market at the nexus of many of our readers' interests: Sports and trading (See "**This IPO could change sports and investing**," TAP8).

So as we looked back over 500 issues, we also—as has been our mission—look forward. Howard Simons is once again contributing (see "**Nasdaq 100 smiles during market frowns,**" page 34) and Al Brooks launches a six-part trading series (see "**Price action trading: The basics**," page 24).

Special thanks go to Leo Melamed (see "**A historical flashback**," page 42)—who, full disclosure, I worked for many years ago at Sakura Dellsher before my initial stint at *Futures*—and Richard Sandor (see "Looking forward to the next revolution," page 38), who wrote a piece in our inaugeral issue. Both have had a huge impact on our industry, particularly in the early innovations that made *Commodities* magazine such a necessary and timely publication, and both have been generous with their time and feedback over the years. It is appropriate they are a part of this issue as each understand the need to tell the industry's story and, true to their innovative natures, neither rest on their laurels but continue to innovate and push the limits of where the industry can go.

Thanks also goes to Philip McBride Johnson, an industry giant in his own right, who has been a constant source of historical information and a regular contributor to our blog.

I also need to thank everyone who has worked on *Futures* over the years because it is their work that we are celebrating.

Daniel P. Collins

Contact me at dcollins@futuresmag.com or @futureswriter.

Which Nordic currency is heading south?

BY ASHRAF LAIDI

What is the best forex combination out of the 11 most liquid currencies as far as currency performance so far this year? Back in May, we picked long Aussie, short Swedish Krona as our favourite trade. Eight weeks later, the trade was up 13% year-to-date. The rationale was based on an inevitable Riksbank easing and Aussie rebound as the Royal Bank of Australia (RBA) gave up on talking down the currency. Both of those events materialised as the Riksbank delivered its shock rate cut while the RBA kept its hands off the rebounding Aussie. So what's next for these Nordic currencies?

July's 50-basis-point cut from the Riksbank was a surprise in its magnitude as most market observers had been expecting a 25-basis-point move. But the central bank, long criticized for falling behind on its 2% inflation target, was forced to prioritize price stability, causing the governor to be outvoted by four members opting for the 50-basis-point cut.

NORDIC COUNTRIES LOOK TO EASE

Healthy Nordic economies may have a race to the bottom on rates.

Country	GDP y/y	CPI y/y	10 yr yield	Real 10 yr yield	Budget Balnc % of GDP	Current Act % of GDP
Denmark	1.3	0.5	1.6	1.1	-1.4	1.3
Eurozone	0.5	0.5	1.2	0.7	-2.6	1.9
Norway	3.9	1.9	2.4	0.5	11.2	10.2
Sweden	1.9	-0.2	1.8	2.0	-1.3	6.1
Switzerlanf	2.0	0.0	0.6	0.6	-0.2	9.9

Source: Bloomberg

From the Riksbank to the Norges

As Norway's Norges contends with record low rates in Sweden and the Eurozone, it raises the question about whether the central bank will be forced to ease in response. Recent manufacturing figures may suggest second quarter GDP to slow near 0.5% from 1.1% in the first quarter, but this may not be sufficient to prompt a rate move as the currency is currently weaker than the Norges had anticipated. However, looking ahead we may have seen the top in NOK/SEK around 1.13, which would later be followed by a gradual retreat towards 1.07 as the Norges eases its policy bias. Norway's federal finances and current account situation are among the strongest in the world, but with higher inflation, interest rates are among the lowest. This suggests rates may have to be forced lower from their current 1.50% in the event that the robust currency starts importing lower prices.

So far, there is no risk of inflation undershooting the Norges' forecast or for the central bank to pull the interest rate trigger in its September meeting. Headline inflation edged up to 1.9% in the year ending in June, pushing the main underlying rate to 2.4% year-over-year and closer towards the central bank's 2.5% target.

Most of Norway's competitors and trading partners are suffering from the risk of disinflation. The Nokkie has certainly reflected this reality. But if the global economic slowdown amplifies the July plunge in oil prices, then the oil and gas-dependent NOK could see its fortunes change quickly, and inflation slows sharply.

Danish or Swissy?

In the case of Denmark, the central bank's discount rate target stood at 0% since July 2012 in response to an average inflation rate of 0.50% over the last 12 months. This kept bond yields below 2.0% on a combination of low inflation and low growth drifting below 1.5% over the past three years. Denmark's currency has outperformed both the SEK and NOK despite its ultra-low rates as the situation prevailed for well over two years. The novelty of the shock rate cut from Sweden and the potential for an easing down the road from Norway may well be behind the recent resilience in DKK.

Switzerland's consumer price index has dipped back to zero and the harmonized CPI adopted by the Eurostat is at -0.1%. Meanwhile, retail sales fell 0.6% in the fiscal year ending in May. Yet the currency remains resilient due to safe haven flows from lingering uncertainty in the Ukraine.

Currencies have repeatedly proven that profit optimisation is best derived from the forward-looking interest rate horizon, rather than the picture prevailing at the present time. With this logic, SEK shorts may remain attractive against USD and AUD into the middle of the third quarter until the focus leans towards a more bearish stance in Norway as the Norges is forced to embrace a more dovish directive. We thus anticipate USD/NOK to strengthen towards 6.75 and CAD/NOK to reach 6.00 by fall as the changing inflation picture in Norway forces more dovishness from the Norges.

Ashraf Laidi is Chief Global Strategist at FX Solutions/City Index, founder of AshrafLaidi.com and author of "Currency Trading & Intermarket Analysis".

Question: Equities are frothy but you're not ready to go short. How do you prepare for a reversal without missing out?

Answer: Markets can remain frothy for some time so use these options strategies to protect yourself.

BY **MARC NEMENOFF**

The simplest solution would be to just buy a put on one of the various stock index futures. Let's look at the most popular stock index, the Standard & Poor's 500 Index. The September S&Ps are currently (July 2) trading at 1968.00. On this date, the September 1900 put is trading at $19.50, a real value worth $975.00. This should afford you the right to be short the S&Ps at 1900.00 at a cost of $950.00 plus commissions. Should the market trade below 1880.50 (1900.00 minus the 19.50 premium paid for the option) before the expiration on Sept.19, you should make a profit equivalent to the amount of the difference between the futures price and the strike price minus the premium paid.

Another alternative would be a put spread. This involves buying one strike and selling another strike priced below the one purchased. At relatively the same cost as the previous example, you can buy the September 1950 put and sell the September 1865 put for about $20.00 or $1,000.00, plus commissions. There are advantages and disadvantages to this strategy. One advantage is that this strategy brings you closer to the money, i.e., the market will not need to make as large a move to make a profit. The disadvantage is that being closer to the money, you are giving up unlimited profit potential. Your profit should be limited to the difference in the strike prices.

Another alternative, one which carries a bit more risk, would be to sell futures and buy enough out of the money calls to be delta neutral, which should limit your exposure on the long side of the market. As an example (these prices are just for illustration purposes), you can sell the September S&P futures at 1968.00 and purchase 3 September 2005 calls at 18.00 each (total of $2,700). The advantage of this is that if the market continues to rally, you can capitalize as the calls increase in both value and delta (delta being the percentage of gain as a derivative of the underlying future).

As the delta value increases you would have to monitor this position and manage the position accordingly to stay delta neutral. For example, if the original delta is 33% and climbs to 50%, you would need to alter the amount of calls from 3 to 2. The disadvantage to this strategy is that by purchasing the options, you have in effect lowered your basis of where your breakeven point is, should the market decline. This is the price you pay for limiting risk.

Let's take a closer look at delta. Delta is one of the risk measures used by traders to measure the degree of price movement to which an option is exposed in relation to the underlying asset, in this case the S&P futures. The value will range from 0.0 to 1.00. An in-the-money call (a call with a strike price below the futures price) will have a higher delta than a call away from the money (above the futures price). An option in the money with a delta of 0.75 will be expected to move approximately 75% of the underlying futures price on an up day. An option with a delta of 0.40 will move 40% and so on (see "Measuring options," left). Delta tends to increase the closer you get to expiration for near and at the money options and will consequently decrease the further the option is out of the money. Delta is not a constant and will change based on a number of variables such as underlying price change, volatility and time.

Delta is a vitally important measure to understand. Too often traders make decisions on a cost basis. They want to get long, but a certain strike is expensive, so they go a bit further out-of-the-money. Then they get upset when their option does not appreciate despite a strong move in the underlying. They chose to give up that profit for a cheaper strike by choosing a lower delta option. That is fine if you understand and are doing it for a specific reason. Options are precise tools and traders need to understand delta along with theta, the rate of premium decline that grows steeper the closer you get to expiration, to be able to understand how and why prices are moving.

For more options strategies:
futuresmag.com/Options

MEASURING OPTIONS

Delta gauges the expected movement in the value of an option strike based on the movement of the underlying.

Delta	2-point ($100) S&P move
1	$100
0.75	$75
0.7	$70
0.65	$65
0.6	$60
0.5	$50
0.4	$40
0.3	$30
0.2	$20
0.1	$10

Marc Nemenoff is a senior broker and analyst with the Price Futures Group. In 1976 he became a member of the CME as an independent trader in the live cattle pit. Marc has worked as a broker, trader, lecturer and is author of the Nemenoff Report.

In search of the 'new normal' at the Fed

BY STEVEN K. BECKNER

The Federal Reserve keeps baby-stepping toward a "normalization" of monetary policy. But just what is normal?

As seen in the Fed's latest quarterly Summary of Economic Projections (SEP) compiled at its June 17-18 Federal Open Market Committee meeting, the definition keeps changing.

Fed officials' estimates of the longer run funds rate, also known as the equilibrium or normal rate, have continually fallen during the last few years.

In January 2012 when the FOMC first began announcing funds rate projections, 16 of 17 participants put the longer run rate at 4% or higher, with six estimating it at 4.5%. Only one had it at 3.75% or lower.

In March, 10 of 16 participants thought it was 4% or higher, and thought it was as high as 4.5%. Two put it at 4.25%. Six said it was 3.75% or lower.

Now, in the latest SEP, only 5 of 17 think the longer run rate is 4% or higher, and 11 estimate it to be 3.75% or lower.

The downward revisions in the normal longer run funds rate have coincided with a downgrading of the economy's longer run growth potential. FOMC's participants now put it at 2.1% to 2.3%, down from 2.3% to 2.6% in January 2012 and even faster before then. The estimates are not directly comparable because the FOMC's composition has changed, but the downshifts are arguably still significant for monetary policy.

The FOMC doesn't set the actual funds rate solely on the basis of estimates of the equilibrium rate; a good deal of judgment is involved. But in presenting policy options to the Committee the Fed staff does rely heavily on Taylor-type rules in which the equilibrium rate is a key variable.

Fed Chair Janet Yellen has often spoken favorably of such rules, and has said the Fed needs to respond in a systematic or rule-based way to changes in the economy.

Moreover, the FOMC keeps saying that "even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run."

It may all sound very esoteric, but the lower the longer run rate is believed to be, the lower the actual funds rate theoretically needs to be. The level the funds rate is apt to attain over time could be lower than previously thought, because the FOMC has revised down the "normal" reference point.

The FOMC and Yellen are sending mixed messages. While phasing out the bond buying it has been doing to hold down long-term interest rates—now $35 billion per month, down from the original $85 billion—the FOMC continues to pledge that the funds rate will be kept near zero "for a considerable time" after quantitative easing ends and, again, be kept "below normal" thereafter.

While lowering the median longer run rate from 4% to 3.75% in June, assessments of the "appropriate" funds rate over the next three years—the "dots"—are actually somewhat higher than they were in March. The median funds rate assessment for the end of 2015 rose from 1% to 1.13% and from 2.25% to 2.5% by the end of 2016. Remember those assessments include non-voting, typically more hawkish Fed presidents.

Yellen was even more careful to emphasize policy uncertainty than in her first post-FOMC press conference. "It is important for market participants to recognize that there is uncertainty about what the path of interest rates, short-term rates, will be, and that's necessary because there's uncertainty about what the path of the economy will be," she told reporters.

"I want to emphasize … that the FOMC will adjust policy to what it actually sees unfolding in the economy over time," Yellen continued.

Further underscoring the air of "uncertainty," Yellen was conspicuously more nebulous about what the FOMC means by saying it will keep the funds rate near zero "for a considerable time" after QE3. In March, she said that period meant "around six months." Now, she says, "there is no mechanical formula whatsoever for what a considerable time means....It depends on how the economy progresses..."

But no one should get the idea that Yellen and the FOMC majority are in any hurry to tighten credit. While she was fairly upbeat about the economy's prospects, she made clear she is still concerned about the large number of "discouraged" workers and the duration of unemployment. Nor did she give any indication she is alarmed about upticks in inflation or risks to financial stability.

While pointing to low levels of market volatility, narrower junk bond yield spreads and increased leveraged lending, Yellen said, "if the question is to what extent is monetary policy at this time being driven by financial stability concerns, I would say … I don't see them shaping monetary policy in an important way right now."

On net, despite Yellen's caveats about monetary policy uncertainty, it seems safe to assume that for quite some time rates will be kept very low and "below normal"—whatever that means.

Steve Beckner is senior correspondent for Market News International. He is regularly heard on National Public Radio and is the author of "Back From The Brink: The Greenspan Years" (Wiley).

SPECIAL 500TH ISSUE

10 events that molded trading in the 20th century

BY DARRELL JOBMAN

***Commodities/Futures* magazine had good timing as it started at the beginning of a revolution in trading and risk management. Here are some highlights from over the years.**

"Ten years ago, a magazine such as this would not have been possible. In this past decade, futures trading has come of age."

When Todd Lofton introduced *Commodities* magazine with these words in the Volume I, Number 1, February/March 1972 preview issue, he could hardly have imagined the changes just ahead for the trading world, beginning within months after the first issue. The timing was perfect for Lofton, a former Navy officer who had gotten into trading. Lofton couldn't find any current publications covering futures and decided to start his own.

In the 500 issues since then, *Commodities* became *Futures* magazine, featuring hundreds of sound trading concepts, opinions and ideas as the trading industry unfolded and evolved from one development to another, intertwined with each other as tends to happen over time. From all of this material, this is one person's view of some of the key events, personalities and articles that highlight the progression of trading during the first half of those 500 issues—subjective choices, to be sure, but a starter list of events that shaped the trading industry.

Nixon closes the U.S. gold window

Although this event occurred on Aug. 15, 1971, several months before the first issue of *Commodities* was published, President Nixon's national television appearance imposing a wage/price freeze and a 10% surcharge on imports also shut down access to U.S. gold. Without the ability to convert U.S. dollars to gold, other nations could not peg their currencies to the gold standard, bringing an end to the Bretton Woods Agreement and several successor attempts to set fixed exchange rate systems.

With the value of currencies able to float and the backing of a prominent economist like Milton Friedman, the currency futures market was born at the Chicago Mercantile Exchange's (CME) International Monetary Market after a failed attempt at the International Commerce Exchange in New York (not to be confused with today's Intercontinental Exchange) in the early 1970s. IMM trading started slowly on May 16, 1975, but eventually took off as money became the ultimate commodity with a long-lasting effect on all other markets.

Commodity price breakouts in the mid-1970s

During one of the seemingly continuous Middle East Arab-Israeli conflicts, the Organization of Petroleum Exporting Countries (OPEC) imposed an embargo on oil exports to the United States and other supporters of Israel in 1973, and also established production quotas in an attempt to control the supply of oil, leading to sharp increases in oil and gasoline prices as well as long lines at U.S. gas pumps.

Oil wasn't alone in moving to new price plateaus. Grain and soybean prices also reached astronomical levels due to a confluence of unusual events:

- The "great Russian grain robbery" in the late summer of 1972 after crop failures caused Russia to come to the United States to buy large quantities of wheat before most U.S. traders realized what was happening.
- Extremely wet conditions in the fall of 1972 delayed the harvest of a significant amount of U.S. acreage until after the ground had frozen in early 1973, reducing the size of U.S. crops.
- Disappearance of anchovies off the coast of Peru due to the effects of El Niño, cutting into one of the main sources of protein in U.S. animal feeds. Demand for protein sent soybean futures prices to a peak of $12.90 per bushel in June 1973, causing U.S. officials to embargo exports of soybeans and meal.
- U.S. crop production problems during the "triple-whammy" year of 1974: late planting due to a wet spring; a suddenly hot, dry summer; and a Labor Day frost that cut yields.

The cumulative effect of these developments sent consumer prices soaring, raised government concerns about inflation and prompted various regulations to control markets — remember the WIN (Whip Inflation Now) buttons? The net result was an economic slowdown/recession that led to a sharp stock market setback. For traders, the mid-1970s will be remembered for their volatility that created a new world of both opportunity and risk.

The Fed makes its move

As the inflationary 1970s unfolded, the inflation rate rose from about 2% in the 1960s to double-digit levels by the end of the 1970s. The Federal Reserve seemed to have little control over the pace of inflation. Then, on Oct. 6, 1979, the Fed under Paul Volcker changed its focus from controlling interest rates to controlling the money supply.

Individual traders didn't seem to realize the implications of that policy shift at first. It did bring inflation under control and eventually produced more stable conditions, but at the expense of interest rates that topped 15% and led to a sharp recession. More recently traders have learned to watch Fed meetings and statements closely for clues on monetary policy, particularly in the age of quantitative easing, but the 1979 Fed decision was a new experience for showing how much influence the Fed has on markets.

Introduction of listed stock options

Traders have had dozens of new instruments to trade over the years, but perhaps one concept that has had the broadest effect was the launch of trading in listed security options in 1973 at the Chicago Board Options Exchange (CBOE). An offspring of the Chicago Board of Trade (CBOT), the CBOE began trading call options on 16 stocks on a deck floor above the main floor of the CBOT in 1974, borrowing some concepts from futures contracts.

Eventually put options would come along in 1977, the list of options would grow to almost every major stock and the CBOE would have its own building across the street from the CBOT as it built its own identity.

NOTABLE ARTICLES

It is impossible to highlight all the standout articles, the authors who contributed them and the personalities who appeared in the 500 issues of *Commodities/Futures* over the years, but a few might be considered groundbreaking. We point those out throughout the story and have digitized most so you can read them online at *futuresmag.com*.


Measuring market momentum

Larry Williams' first article, "Measuring Market Momentum" (October 1972), was a great one. His articles on seasonal trading, *Commitments of Traders*, his %R indicator and other topics introduced new ideas. He was also the thinly-veiled source for an anonymous interview in the Market Millionaires series that appeared in October 1974 after the release of his book, *How I Made a Million Dollars Trading Commodities – Last Year*.

Oster Communications had conducted Pro Farmer seminars that drew about 100 people, but when Williams appeared at a *Commodities* seminar in 1976, he packed the house with more than 230 attendees. He has been a sure-thing seminar draw for all the years of *Commodities/Futures'* existence and remains probably the most widely known individual trader worldwide.

Welles Wilder Jr. wrote an article on his Relative Strength Index in the June 1978 issue. Wilder was author of *New Concepts in Technical Trading Systems*, a book that is probably the greatest source for innovative technical analysis concepts.

Although *Commodities* started with a focus on futures, the magazine carried its first article on the CBOE and one of its first listed call options (Northwest Airlines) in the April 1973 issue, barely a year after the magazine was launched. As Lofton began to turn more of his attention to options, he was willing to sell *Commodities* to Merrill Oster, co-founder of Professional Farmers of America, and Oster Communications took over publication of the magazine with the March 1976 issue, Volume 5, Number 3.

New concepts, new instruments

Listed stock options weren't the only new kid on the block as innovators in the trading industry came up with new ideas and new products.

The first futures contract based on a financial instrument, Government National Mortgage Association (GNMA) certificates, began trading at the CBOT in 1975 followed a few months later by Treasury bill futures at the CME, Treasury bond futures at the CBOT in 1977 and Eurodollar futures, the first cash-settled futures contract, in December 1981. These opened the door for another whole new area of trading instruments.

Cash-settled futures on stock indices were the hot new thing in the early 1980s, both for traders and for regulators trying to decide who controlled what. Futures on the Value Line Index at the Kansas City Board of Trade were first out of the gate, followed by futures on the Standard & Poor's 500 Index at the CME — no one could get rights to trade futures on the Dow Jones Industrial Average initially.

With the introduction of so many financial instruments, the clamor in the industry was that "we don't trade commodities, we trade futures." That led to the name change from *Commodities* to *Futures* magazine with the September 1983 issue—an issue that, incidentally, profiled legendary trader Richard Dennis and his Turtle traders.

The next big newcomer to the product mix was options on a few selected commodities in the fall of 1982, and then on several stock indices in early 1983 as part of a pilot program that tested the new concept cautiously. Options eventually became a permanent part of the trading scene and played an integral role in the trading plans of both individual and institutional traders.

1987 stock market crash


Let the market make the decision on indexes

Oct. 19, 1987 is noted for the largest one-day price plunge in stock market history and had a significant effect on traders' perception of the market. As with other market collapses or abrupt price moves, the conditions that led to the crash and corrective actions that were taken are still the subject of study.

The effects of the crash and the Savings & Loan crisis of the late 1980s took time for the trading industry to absorb and may have delayed some developments such as electronic trading. But the one bottom-line fact that stands out is this statement from the Commodity Futures Trading Commission (CFTC) history log: "No CFTC-regulated systems fail and no firms default on obligations" as a result of the 1987 crash.

And, as *Futures* editorialized in the December 1987 issue, "If it had not been for the index contracts, the stock market debacle on Oct. 19 most likely would have been much worse than it was."

Role of regulation

As the record grain and soybean prices spiraled higher in 1973-74, there were concerns about excess speculation and market manipulation. In addition, futures had moved into new areas such as currencies and were being developed for interest rates. Congress decided to move regulation of futures from the Commodity Exchange Authority in the U.S. Department of Agriculture to an agency of its own, the CFTC.

It took the five commissioners of the new CFTC some time to be selected and to set up the structure of an agency, but in April 1975, the CFTC assumed regulation of all U.S. futures trading. The CFTC was also the first federal agency with a "sunset" provision: Congress had to reauthorize the CFTC every few years or its existence expired.

Each reauthorization has had its share of drama and political battles over the last 40 years as the industry and regulators dealt with occasional defaults, squeezes and sometimes outright scams that threatened the integrity and credibility of the marketplace. One of the more tumultuous periods came in the late 1970s when the CFTC banned trading in so-called "London commodity options" and dealt with trading issues related to President Carter's grain embargo to the Soviet Union and the Hunt brothers attempted squeeze in the silver market.

The early 1980s brought in a breath of fresh air under Philip McBride Johnson as CFTC chairman. The period ushered in a series of new products as the Shad-Johnson Accord sorted out jurisdictional issues among government bodies and set up a registration process for brokers, commodity pool operators and commodity trading advisors as part of the Futures Trading Act of 1982.

CBOT President Warren Lebeck worried about the dangers of letting the regulatory "camel get its nose into the tent" at the first meeting of the Futures Industry Association at the Innisbrook Resort in Tarpon Springs, Fla., in March 1976, but the oversight role of the government came to be viewed as one of the necessary evils to gain customer acceptance in a business that had some history for shady practices. Included in the new regulatory structure was the first self-regulatory futures organization, the National Futures Association, which began operations on Oct. 1, 1982.

Computers and commodities


COMPUTERS AND COMMODITY TRADING

Computers were an important subject for the magazine from Issue 1, which included an article entitled "Computers and Commodity Trading," co-authored by a young assistant professor at the University of California, Berkeley named Richard Sandor, who became known for developing the first interest rate futures and later for contracts related to the environment.

This was at a time when institutions may have had mainframe computers used for research by creative traders, but most individual traders were still producing their own charts with paper and pencil. When Apple introduced its first personal computers (PCs), Apple became the basis for the CompuTrac platform, developed by a group of traders and headed by Tim Slater in the late 1970s.

When IBM announced its first personal computer in August 1981, some IBM officials were skeptical that individuals would ever need or use a computer. But the PC put trading and market analysis at traders' fingertips.

When Louis Mendelsohn of Market Technologies released the first strategy back-testing software for personal computers in 1983, there really was no trading software industry — there were no "apps for that," in today's terms. Enterprising software developers soon jumped on the opportunity, including Bill and Ralph Cruz of Omega Research, who introduced System Writer at Futures Expo 1987 (Super Charts and TradeStation would come later from Omega).

Electronic trading takes over

As PCs became ubiquitous on trading desks, exchanges began

to develop automated trading systems, keeping plans under wrap at first in an effort to not upset the open-outcry crowd that dominated trading. When the CME announced on Sept. 2, 1987 that it would incorporate a Post-Market Trading (PMT) automated system into the exchange by early 1989, CME general counsel Leo Melamed said the system would promote trading worldwide overnight without pulling volume from the open-outcry trading floors.

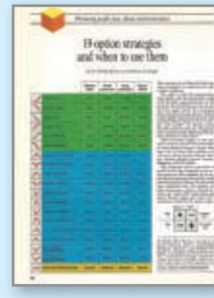
Whether that was a smoke screen or officials didn't actually realize the impact electronic trading would have, the matter was a moot point—for a while anyway-—as the stock market crash and more urgent issues got in the way. After a name change to reflect the growing global impact on markets and refinements to the platform, the system emerged as Globex and made its first trade in 1992, five years after it was announced.

With the launch of the Internet in the 1990s and the increasing role of individual traders using personal computers, electronic trading became the only way to go. As the size of the S&P 500 Index contract grew larger as the stock market rose, the CME introduced E-mini S&P futures, one-fifth the size of the original contract, in 1996, and it soon became the most actively traded U.S. futures contract.

Electronic delivery has also taken over the information business as some print magazines have disappeared, and many readers only see the online version of magazines such as (*Futures.com)* on web sites. F

Darrell Jobman is a former editor of *Commodities/Futures* and is now a senior analyst for TradePlanet.com.

NOTABLE ARTICLES



William Degler's article, "19 options strategies and when to use them," in the June 1984 issue. His format for showing strategies became sort of the Cliff Notes Bible of options trading. Degler followed up with more than 20 articles that clearly elaborated the options strategies in a *Futures* series that ran through 1988.

Steve Nison introduced candlestick charts to the western world with his article in the December 1989 issue, before his book on candles was published. He added other articles later as candles became, perhaps, the most widely used chart style.

So many other names should be mentioned for their contributions: Jack Schwager, Mark Powers and Leon Rose. From the earlier days: Bob Prechter, Phil Tiger, Hal Bressert, Jake Bernstein, Ray Dalio, Richard Donchian, Tom DeMark, Robert L. (Bucky) Isaacson, Ed and Phil Gotthelf, John Murphy and Alexander Elder.

Other names will undoubtedly come along in the next 500 issues whether you read the print or online versions of the magazine.

Futures and options

BY DANIEL P. COLLINS

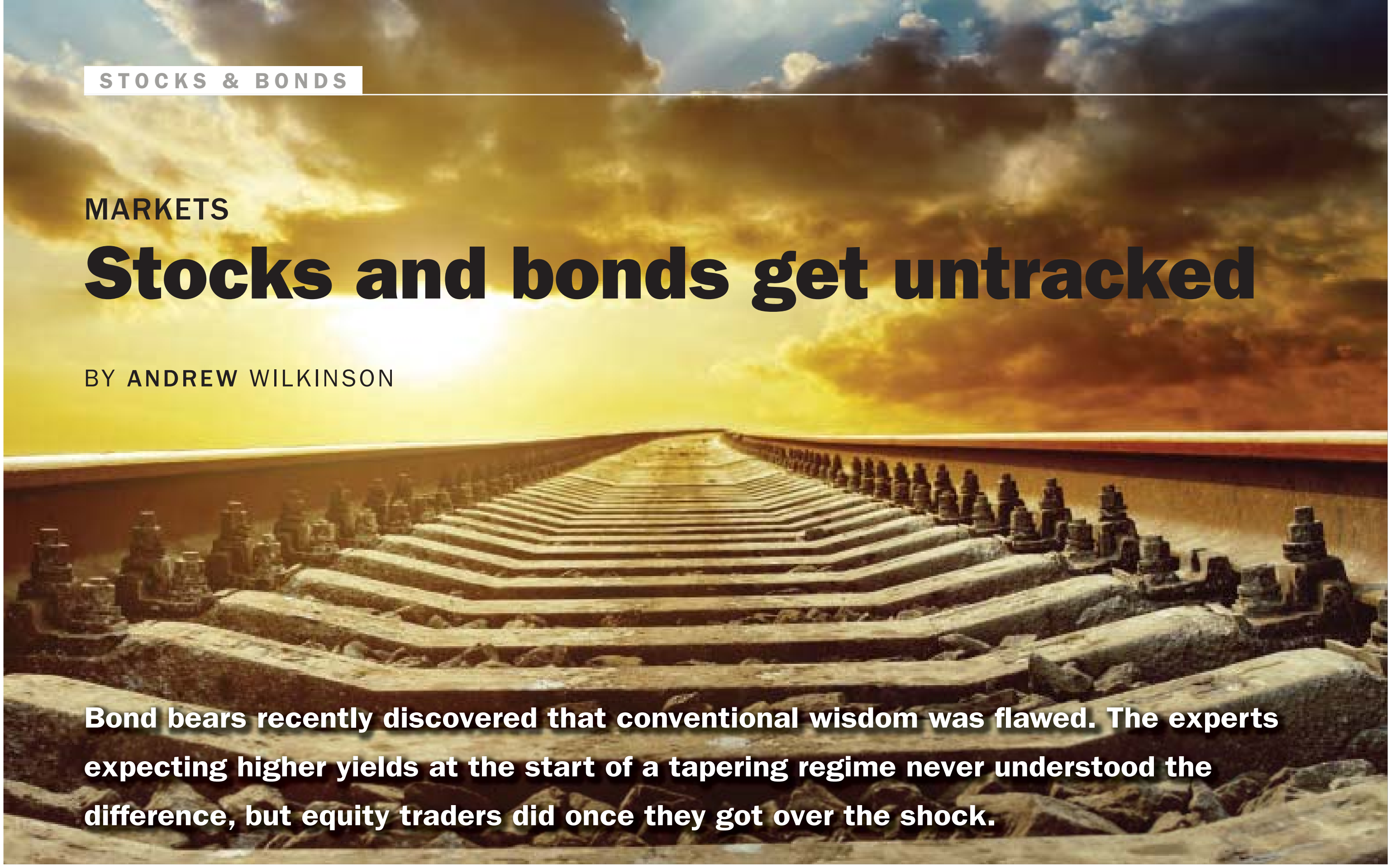
Option markets were a part of futures almost from the beginning. The options market grew out of the futures market and the innovative leadership from the Chicago Board of Trade and O'Connor brothers.

Futures were created for producers and consumers of commodities to transfer their risk. Options are a more precise tool to transfer risk. They were first launched on equities in the smoking room of the CBOT, and the Chicago Board Options Exchange (CBOE) spun off as the leadership of the CBOT did not want the Securities and Exchange Commission (SEC)—which needed to have oversight over options on securities—to be too involved in their business.

The value of options soon proved themselves as competitors to CBOE were formed and continue to be formed. Futures markets would soon list options on futures, which today makes up more than half of futures volume.

However, it became necessary to cut the CBOE off from, and created one of the most difficult legal battles between the two. The CBOT needed to split away for regulatory reasons, but as its creator, recognized it as a valuable business in its own right. The solution was to give each full member of the CBOT an exercise right on the CBOE. Many trades would trade on both exchanges, and many CBOT members made their living trading options on CBOE. As the trading world evolved and the exchange began to demutualize, the question of what happens with those exercise rights spawned numerous battles and lawsuits between the two exchanges that sat across the street from each other. The battle delayed the CBOE's ability to have an initial public offering and was not fully resolved until the CME Group was formed with the Mercantile Exchange's purchase of the CBOT.

Options coverage and options strategy articles—both equity options and options on futures—have been a part of *Futures* from the beginning. In fact, if the timing of our name change had been different, one could see "options" being used in our title.



MARKETS

Stocks and bonds get untracked

BY ANDREW WILKINSON

Bond bears recently discovered that conventional wisdom was flawed. The experts expecting higher yields at the start of a tapering regime never understood the difference, but equity traders did once they got over the shock.

By the end of May, the decline in the benchmark 10-year U.S. government note yield to 2.40% marked its lowest reading since July 2013. The topic du jour on most financial media talk shows immediately became why bond yields were seemingly responding more to the earth's gravitational pull and ignoring the imminent monetary tightening that the Federal Reserve was clearly embarking upon. Meanwhile, stocks continue to enjoy the summer heat and appear unflustered by a slew of nasty geopolitical risks in the background.

Tapering vs. tightening
Fed in control

The cornerstone of the bull market for equity prices is to be found in the Federal Reserve's unconventional policy of buying bonds and reinvesting proceeds from maturing securities. While the policy has undoubtedly delivered an era of ultra-low bond yields, its effect on economic recovery is less easy to determine. However, investors continue to be convinced that equity prices are not overvalued even at record highs. In addition, they are also starting to better understand the interplay between stock prices and bond yields. Perhaps one year ago it used to be the case that the Fed could prepare to make its exit as the economy flourished under a period of easy money. Logic stated that beyond its bond purchase period the economy would be well enough primed to withstand a normalization of borrowing costs. The Fed, however, continues to pour cold water on that argument, leading investors to believe that interest rates will be lower than usual for longer, and that post-tapering will not guarantee that the economy is ready for policy increases.

And so the backdrop for stocks in a gentle growth environment continues to look rosy. It would likely take the threat of recession and a slide in projected earnings growth to prevent the S&P 500 Index from stretching to as high as 2,100 throughout the remainder of 2014. Equally, the 10-year U.S. government note yield is likely to torment the strong bearish element among fixed income investors. Investors are slowly adjusting to the likely path of interest rates over time, and in the continued absence of inflationary pressures, it seems more likely that yields will touch 2.25% at some point in 2014 rather than returning to 3.03% where they started this year.

For more from Andrew, go to **futuresmag.com/Wilkinson**

Yields and prices move inversely. Rarely have bond prices correlated with those of stocks, except during the unprecedented era of quantitative easing at the Fed, and even then the relationship is hit and miss. Typically bonds go up in price when a recession is on the horizon. When the economic engines are finally ignited by loose monetary policy, stocks jump the gun and are quick to discount the more optimistic outlook, signaling a deathknell for bonds as yields are driven higher (see "Yields/curve slide in May," right).

Misreading the Fed

So, when economists drew up their 2014 forecasts in the final two weeks of December, and shortly after the Fed announced the onset of its withdrawal from the bond markets, the consensus view was that bond yields would end this year at 3.47%. In light of the Fed's action, bond selling accelerated as 2013 came to a close, driving the 10-year yield substantially higher and closing at 3.03%. How could Wall Street call the widely-watched Treasury market so spectacularly wrong?

Economists and bond bears misunderstood what the Fed was doing as it started the process of tapering. Some traders assumed that the Fed was on the brink of tightening policy or that tapering itself was a form of tightening. They thought the Fed would step back from leaning on the yield curve and then start lifting the short-term Fed funds rate. That was never the Fed's intention and then two things happened. First, the Federal Open Market Committee stated that further additional tapering was fully data dependent. Second, investors failed to build in the effect of higher bond yields in response to Fed tapering. Rising yields in direct response to fears and the actual tapering process affected confidence and decision making. Investors are poor at building such yield shifts into their reaction functions. One could argue that the Fed might be less likely to temporarily cease tapering precisely because rising slow progress.

Growth in the U.S economy shrank in the first three months of the year for the first time in three years, although much of the contraction was likely due to poor weather. Nevertheless, the development of the business cycle seems different this time—in keeping with the "new normal" mantra. Investors assumed that if the Fed was at the point of tapering, the economy would be rebounding. True, but not to the same extent it has in any other recovery. Consumer spending remains robust, yet wages are stagnant and the pre-crisis economic engine of home-construction is a faint shadow of its former self.

The financial crisis has left its hallmark on the rest of the world. While the ensuing Eurozone financial crisis appears over, at the start of June the European Central Bank (ECB) had finally relaxed policy in response to weak consumer price pressures, coupled with a lack of economic traction outside of the German manufacturing powerhouse. China continued to serve up deep-rooted concerns over its growth trajectory as the real estate market falters, while Japan has only stabilized as a result of massive monetary measures from its central bank. Global growth is hardly accelerating, and much of the developed world is on watch for further slowdown while inflationary pressures remain muted.

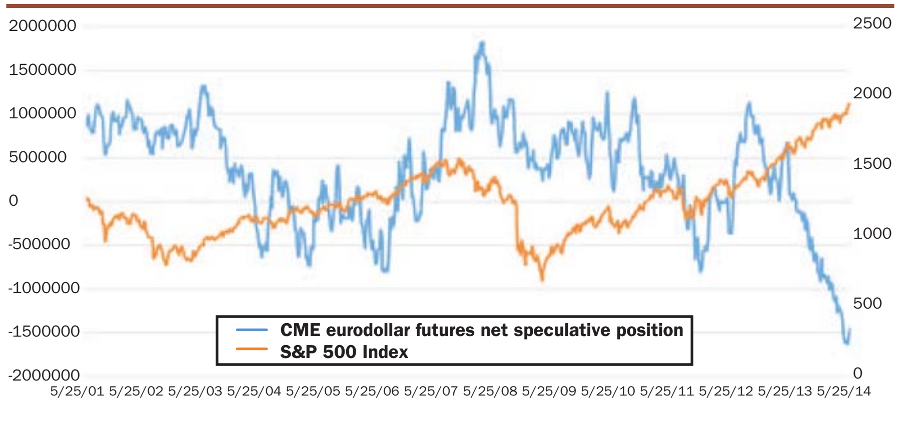
YIELDS/CURVE SLIDE IN MAY

Despite ongoing tapering—even amid soft numbers—yields declined proving bonds are a two-way market.

Source: Bloomberg

FLIGHT TO RISK ASSETS

Long interest in Eurodollars waned, traders jumped on equities.



Source: Bloomberg, CME

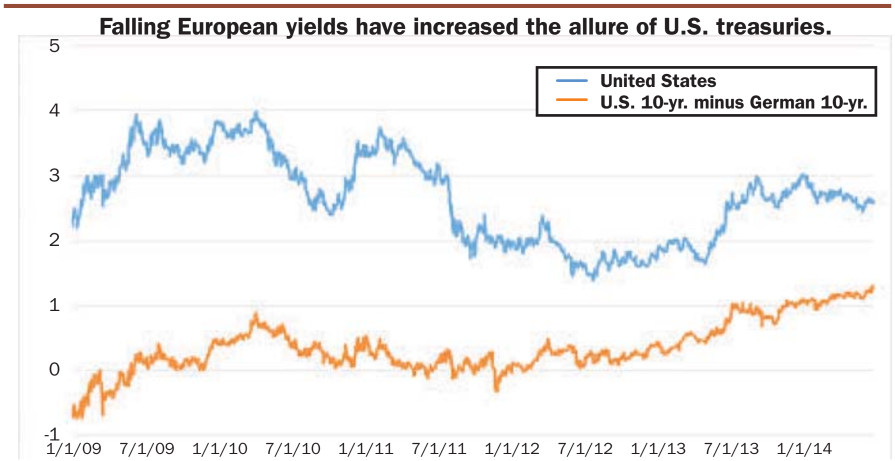
Some onlookers note that perhaps U.S. government bond prices recently accelerated, sending yields plunging, because of their relative value as Eurozone government equivalents rallied in preparation for the ECB's latest monetary ease. Part of this argument may be true. Yes, the odds are that the Eurozone financial crisis has been resigned to history, which explains why even peripheral Spanish, Italian and even Portuguese yields compressed massively to Germany's bunds during May. And you can hardly blame investors wanting to own bunds ahead of the widely-predicted ECB easing in June given that the move was supported by the Bundesbank, whose members are more concerned about the specter of deflation rather than inflation at this stage of the recovery.

Yellen stumbles out of gate

Fed Chair Janet Yellen has recovered from a stumble in her maiden FOMC press conference in which she indicated that the distance between the end of taper and the onset of the take-off for the fed funds rate might be six months. She continues to point to the reality that the Fed may change course if the data dictates, and recognizes that the labor market has internal deficiencies regardless of the headline unemployment rate. It is perhaps this recovery from her rookie appearance that has had the greatest

BONDS OVER BUNDS

U.S. Treasury yields gaining over Eurozone.



Source: Bloomberg

SMALL CAPS STEP UP

Since May small caps and technology have shaken off their torpor relative to the S&P 500 index.

Source: Bloomberg

influence on the performance of stocks and bonds this year. The key point to note is that when forecasters were busy at the end of 2013 factoring in the expected performance of hard economic data, they failed to project the rollout of Fed-speak, which itself is a function of markets' response to Fed action and the behavior of economic data.

Bond buyers have also begun to recognize that even as unemployment falls, there is little inflation. Also, judging by several of the measures Yellen points to, there is little chance of a build-up in wage pressures—the typical source of wage-push inflation. This is just dawning as investors conclude that the inflation genie remains firmly in the bottle despite vociferous criticism of the Fed for risking its appearance in its untested asset purchase program. Very few people actually understood the mechanics of quantitative easing, mistaking former Fed Chairman Bernanke's explanation of the "portfolio balance channel" with increasing the money supply. If you raise the supply of money, surely economic theory states that prices must increase! That has not happened, and even as the Fed sounded cautious over the size of its balance sheet, its agents could see few signs of frothy asset markets.

Post QE world

As fixed income markets come to terms with the post-tapering timetable for any change in short-term interest rates, investors are starting to recognize that if there are no signs of inflation six years into asset purchases, there won't be any for some time after the Fed is done. The winds of change are in the air, and fixed income investors have acted in advance to signal recognition that the chances of a lift in official interest rates is a function of growth and not the number of months after the Fed stops buying bonds.

Investors are getting what they want in terms of improvement in nonfarm payroll numbers each month and a drop in the headline rate of unemployment. Initial weekly jobless claims support the same point with continuing claims of 2.6 million recently falling to a seven-year low. However, Yellen continues to point out the ambiguities as the household employment report reflects stubbornly high readings for the longer-term unemployed and slack in the labor market apparent in the record-low reading for employment participation. The Fed (and any central bank) will tell you monetary policy is a blunt instrument, depressing bond yields and those on associated assets can only help create conditions that would fertilize the soils in which businesses can flourish. That time has passed, and going forward businesses will respond to rising yields generated in the market by showing less enthusiasm for hiring.

Eurodollar futures traded on the Chicago Mercantile Exchange saw a surge in open interest as 2014 developed, reflecting a groundswell in bearish short positions across three-month futures. Dealers positioned for higher rates and a steeper yield curve. On reflection, much of that was baked in to sentiment at the start of the year and admittedly some of the transition to a flatter and lower yield curve is the result of capitulation among the interest rate bears. It is clear those buyers turned to equities (see "Flight to risk assets," page 21).

As Fed-watchers look down the tightening road, they are also acting as though there may be a break with the tradition of both increment and magnitude of potential monetary tightening. As the relative yield differential between German and U.S. government bond yields widens in favor of bonds, fixed income buyers are favoring Treasuries ("Bonds over bunds," left). At the same time the ECB has eased policy by 10 basis points, moving to a negative deposit rate—a departure from the quarter-point reductions or increases central banks typically adjust policy settings by. The Fed's Summary of Economic Projections continues to focus on 25 basis point increments, but as the economy returns to what Pimco now calls the "new neutral," we should be prepared for Fed voters to rein in their expectations and possibly shift to smaller future rate increases. The sensitivity of mortgage demand amongst home buyers and mortgage owners was all too evident one year ago when former Fed Chair Ben Bernanke first suggested the onset of tapering. The wholesale shift higher in the yield curve had critical implications for refinancing demand and caused Bernanke to shelve his ambitions at the September FOMC meeting.

For the duration of the Fed's misunderstood experiment with quantitative easing, politicians and investors wagged their fingers and to this day remain critical of the central bank. Their concerns are mainly centered on inflation fears. Some argue that the Fed should arrest its purchases because buying bonds was never productive in helping the economy anyway. Yet, with improving nonfarm payrolls countering such arguments, the Fed can see that in the post crisis era there is little more to be gained from continuing its policy. This is a key point because it strikes at the heart of the expectation that the economy must be rip-roaring when the Fed steps back. Simply put, it is not—and the Fed admits that expanding its balance sheet may risk inflation down the road. Clearly there is a diminishing return aspect to QE. Bernanke once noted that in the absence of QE the economy would have created fewer jobs and GDP would have been lower. A disconnect has emerged between investors' view of the health of the economy and the reality of what has been accomplished.

Likewise, stock investors are figuring out that the printing presses the Fed apparently resorted to are perhaps not the major catalyst behind the equity market rally. By that definition, the end of purchases by the Fed is no reason to call its end. If investors are figuring out for themselves very slowly that yields might stay low beyond the time the Fed takes its hand off the rudder, the emergent catalyst for the next leg of the stock market's rally will surely become ultra-low interest rates.

Thus far during 2014, investors have felt a fairly limited effect from the abundant geopolitical threats that could normally be relied upon to spur a run on risk appetite. Technology stocks advanced in late June to a 14-year high, while investors seemed to wallow in the warm waters of repeated records for the S&P 500 Index. One of the more impressive features of the ongoing rally is the behavior of both small caps and technology stocks since early May. Two months earlier as the so-called momentum stocks lost favor among investors, the broader S&P 500 / Index outpaced most other benchmarks. That had the impact of giving the bull market the appearance of becoming weak in the knees. So the rebound in leadership from small caps and technology issues has redoubled investors' faith in the rally (see "Small caps step up," left).

A year ago equity and fixed income markets overreacted to the threat of tapering and both have learned to live—even thrive—with it once traders understood that tapering is not tightening. Tightening is inevitable, but not imminent, so it is hard to see how the outlook for equity prices for the rest of 2014 will differ from the first half of the year. For sure, geopolitical risks abound, but in the absence of a terror-like event, it is hard to envision what would set off a major market correction. Of course, the other major threat to disrupting the rally is a turnaround in sentiment towards bonds.

The views expressed herein are the personal views of the author and are not intended to reflect the views of Interactive Brokers Group or any of its affiliated companies. F

Andrew Wilkinson is chief market analyst for Interactive Brokers and a seasoned trader and commentator of global financial markets. His coverage of stocks, options, futures, forex and bonds regularly surfaces in global media.

TRADING TECHNIQUES

Price action trading: The basics

BY AL BROOKS

This first of six parts introduces the concept of price action trading and lays the foundation for a broader explanation of the technique.

This is the first of a six-part series that provides an overview on how to trade using price action on all time frames and in all markets. Although there is no universally accepted definition of price action, I use the broadest one — it is simply any move up or down on any chart for any market.

The smallest move any market makes is one tick (one pip for forex markets). If a market moves up one tick, it is because there are not enough sellers at the current price to fill all of the buy orders, and the market has to go higher to find more sellers. If it falls one tick, it means there are not enough buyers at that price.

High vs. low probability trades
How charts reveal future moves

Day traders don't have the ability to spend time thinking about anything other than whether the market will go up far enough to make a profit if they buy, or fall far enough to make a profit if they short. I make several assumptions that allow me not to worry about anything other than the price action on the chart being traded. It is impossible to know if my assumptions are true, but they are consistent with how the market behaves; if they prove wrong, change those assumptions.

Two sides

In every major market, no trade can take place unless there is at least one institution willing to take the buy side and another the sell side. Institutions dominate all major markets; individual traders are simply not big enough to have any effect. Although a trader might believe his order moved the market, that belief is almost always deluded. The market moved only because one or more bearish institutions and one or more bullish institutions wanted it to make the move, even though time and sales might show your order was the only one filled at that price.

Moreover, traders should accept that 75% or more of all trading is being done by computers. The math is too perfect and the speed is often too fast for anything else to be true. Still, every tick is important, especially in huge markets like the E-mini S&P 500. If you spend a lot of time studying the market, you can see a reason for every tick that takes place. In fact, you can see a reasonable trade to consider on every bar during the day.

What about all of those one-lot orders in the E-mini or the 100-share orders in Apple (AAPL)? The majority of them are being placed by computers conducting various forms of computerized trading (including high-frequency trading), and it often involves scaling in or out of trades and hedging against positions in related markets. Some firms are placing millions of orders a day across many markets. Scaling into a trade means to enter more than once, either at a better or worse price, and scaling out means to exit the trade in pieces. They are taking a casino approach, making a big number of small trades, each with a small edge, and this can result in tens or even hundreds of millions of dollars in profits each year.

For more from Al, go to **futuresmag.com/Brooks**

All profitable traders, whether institutions or individuals, will only buy if they believe the probability of making a profit is greater than the probability of losing money. This is the "Trader's Equation": for a trade to be profitable, the probability of making a profit times the size of the profit (the reward, which is the number of ticks to the profit-taking limit order) has to be greater than the probability of losing times the size of the loss (the risk, which is the number of ticks to the protective stop). The risk and reward are known because the trader sets them; he decides where he will take his profit (his reward) and where he will take his loss (his risk).

The third variable is the one that causes the greatest problem for most new traders. They quickly discover that all of those books and courses that make trading look so easy hinge on a fallacy that there are a lot of perfect trades where the probability is high and the reward is much bigger than the risk. Perfect or nearly perfect trades cannot exist because every trade needs institutions on both sides.

If a trade is perfectly good for the buyer, it has to be perfectly bad for the seller, which means taking a low probability of winning where the risk is much bigger than the reward. No institution would ever take the other side of a perfect trade because it would lose money over time even if it occasionally won. The result is that no trade can be perfect. There has to be something in the trade for both the buying and selling institutions, the majority of which are profitable.

How can it happen that traders taking opposite sides of a trade can both make money? It comes down to trade-offs among the three variables in the trader's equation: risk, reward and probability. You often hear about risk/reward ratios, but whenever you do, the author is implying the probability is high, which may or may not be the case.

Some trades are very high probability trades. For example, a high probability trade is where the market races up to your profit-taking limit order, but does not fill it, and then pulls back one tick. At this moment, you almost certainly will not change your order and will hold because you correctly believe the strong momentum will result in you getting filled within the next few seconds. That means you had to give up something on one or both of the other variables because otherwise you would have a perfect trade, which cannot exist.

What are you giving up with that high probability trade? Well, your reward is now only one tick, since you are trying to take profits one tick higher than the current price. This means that in exchange for your high probability, you are forgoing a big profit and are willing to take only a miniscule profit (see "High and low probability setups," above). You are accepting a very small reward. Furthermore, you probably are relying on your stop, at least for the next several seconds, and your stop is probably many ticks away. Say your stop is six ticks below the current price. This means you are willing to assume a risk that is six times greater than your reward in exchange for a very high probability. You need to be about 90% confident for the "Trader's Equation" to make this a worthwhile trade.

Traders never really have enough time to debate whether the probability is 90% at that instant, or if they just feel it is worth relying on the current stop and profit-taking orders for at least a few more seconds. Although it is not conscious, they have to believe they have a 90% chance of success to make this decision because that is the only rational basis for holding it. Does this make sense? Of course it does, and it is a decision all of us make whenever the market gets close to filling our profit objective.

Ulterior motives

While there always has to be an institution taking the opposite side of every trade, it is not as simple as saying that the instant your trade pulled back one tick, an institution shorted with the intention of doing the opposite of you. If such a theoretical institution existed, it would be giving up probability to attain a high profit relative to the size of its risk, which can make sense if the three variables are the right size.

Rather, think of the opposite side as being made up of a pool of institutions, all of which have tested algorithms and concluded that their combination of risk, reward and probability has a profit-

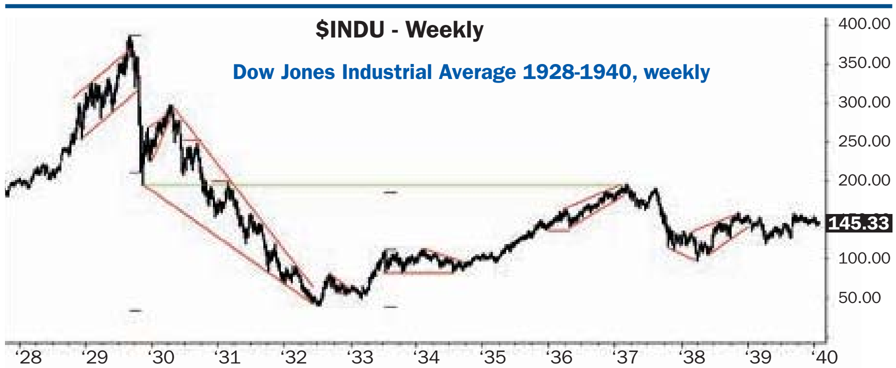
HIGH AND LOW PROBABILITY SETUPS

When the probability is high, the profit potential is small compared to the risk. Swings have either low probability, or big risk (wider stop) relative to the reward.

Source: TradeStation

TRADING THROUGH TIME

This is a weekly chart of the Dow Jones Industrial Average during the Great Depression. Price action trading will always work because it is based on genetics and logical behavior. Without labels, it is impossible to know this chart is from 80 years ago.



Source: TradeStation

WHO'S WHO

Price action trading works on all markets and time frames. Below is a one-minute, five-minute and daily chart of a stock, commodity, and currency. The figure on the left is a daily chart of GE during the 1987 crash; the middle chart is a one-minute EUR/USD forex chart and the chart on the right is a five-minute gold futures chart.

Source: TradeStation

able "Trader's Equation." Some of those bears want high probability, which means that their reward will be small compared to their risk; they might short and sell higher. A different bear might take the opposite side of your trade by structuring a trade that favors reward at the expense of risk and probability. It does not matter.

However, it is important to be comfortable believing that at every instant there is a way to structure both a long and a short trade that have positive "Trader's Equations." This is true even in the strongest trends. This frees you from only considering one direction and forces you to remember you are trading in a market where both the bulls and bears make money. It is possible to either buy or sell at any instant and make money if you structure the trade correctly. You also have to take enough trades; you can even lose on most of your trades if your winners are big enough.

New eras

A common topic is whether computers and cultural differences have changed the way markets behave. I have studied charts going back 100 years, and have traded since 1987. If you remove labels from charts, you can't tell if the chart is from 1910 or 2010 or if it is a five-minute forex chart or a monthly Dow chart.

How can computers not have affected the price action? It clearly has some effect, but algorithms simply look for logical patterns and then structure trades where there is a mathematical edge. That is what all traders have done in all markets since the beginning of time.

Trading has always been part of civilization and crucial to the survival of society. The more fit traders have an advantage. Trading is genetically rooted, and computers simply move trading further along the evolutionary path. This is why the charts are the same as they were 100 years ago and why the charts of all markets and all time frames look the same and always will.

Traders learn early on that it is difficult to make money and the sense that the edge is small. They then naturally think of ways to increase their edge. One is to use indicators, like the ones they see in all of the ads online and in the magazines.

If trading is moving toward perfection, how can anyone make money? Simple. We live in a competitive world, and some will always be better than others. Better traders will always have an edge, which is a mathematical advantage, and they will make more than everyone else. What about the argument that trading is a zero-sum game and that no one can ever really make money long term? Over the next day or two, trading is essentially a zero-sum game. However, the world economy has been growing at about 3% a year forever, and this means there is 10-times more money in the world today than in 1987, and 100-times more than in 1927. The pie will always grow, so everyone can have a piece; the better traders will have the biggest pieces.

Reductio ad absurdum

"If I can make more money on the five-minute than on the daily chart, then I surely can make much more on the one-minute chart."

This logic ignores the practical limitations of the human brain. We are not computers, and we have real time limits for our ability to process information and make decisions accurately. If we do not have enough time, we are more likely to make bad decisions. For most traders, they should trade charts that have no more than 20 bars per hour. Most should trade a five-minute chart or an even higher time frame.

What looks obvious on a printed chart after the close, when you can see all of the bars to the right of your signal bar, is usually not obvious in real time. Also, a bar often looks far different in the second that it closes than it did even one second earlier. This means a trader has much less time than what he might believe when he looks at a chart at the end of the day.

"If I can make money when scalping for 20 ticks, I can make even more if I take far more trades, scalping for one to three ticks!"

This is another fallacy that I see promoted on different websites; it is an example of theory colliding with reality. Not only is there the problem of our inability to process information accurately when we have to decide too quickly, there are the additional problems of slippage, spreads and commissions.

Most traders cannot trade E-minis for less than about $5 round turn commissions. If they scalp for one point, their net profit is $45 when they win and their net loss is $55 when they lose. If they scalp for one tick, then they make $7.50 on their winners and lose $17.50 on their losers. They usually have to give up one tick when they enter and another when they exit. This means the market has to move three ticks for them to make one. They almost always have to risk at least two to four ticks.

Let's say a trader is trading the five-minute chart and risks three ticks, $37.50; he needs the market to move three ticks in his direction before it moves three ticks against him. When he is right, he will net $7.50, assuming there is no slippage and he never makes mistakes. When he is wrong, he will

Trading Techniques: Brooks continued on page 49 ➤

THE ALPHA PAGES
THE ALTERNATIVE INVESTMENT NETWORK

alphapages.com | vol. 1

REAL TALK ON ALTERNATIVE INVESTMENTS, BUSINESS & FINANCE

Inside this issue...

Editor's Note

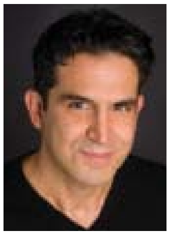
"Real talk on alternative investments, business & finance"—that's where we're going with The Alpha Pages.

Alternative investing is hardly a new concept.

The first hedge fund was launched in 1949 and, 30 years later, *Futures* magazine was already publishing annual alternative-themed issues featuring the merits and pitfalls of investments in rare stamps, books, coins, diamonds and collectibles. These early, uncomplicated alternatives were nice topics to explore every now and then, long before the increasingly frequent appearance of black swans, high-frequency trading and global financial crises changed the public's perception of the conventional wisdom underpinning traditional "buy and hold" investing.

With industry assets under management currently estimated at $10 trillion, the alternative investment world now encompasses a dizzying range of asset classes, trading strategies, derivatives and opportunity sets that are as arcane...

Continued...



and sophisticated as the technologies that spawned them. From the acute algorithms of seasoned alpha-hunters to the bad actors promising big returns, it's easy to get lost in the noise and it's getting harder to understand the real profit potential.

The launch of The Alpha Pages acknowledges this ever-expanding universe of unique, exotic and alternative investments to fixed income and publicly traded equities. The Alpha Pages will uncover the best and worst of the alternative investment industry, providing actionable data, insightful analysis and pointed commentary on issues that keep investors up at night.

That's what we mean by "real talk".

Combining print and online publications creates a continuous dialogue for this specialty audience. The Alpha Pages is your central source—24 hours a day, seven days a week—for honest insight on the alternatives industry. This is powered by our recent acquisition of leading global hedge fund news site FinAlternatives, the *Futures* magazine team and our tireless contributing writers that has come online to address a true need for real talk and debate on issues surrounding this industry.

To kick off our inaugural issue of The Alpha Pages, we are extremely pleased to present our interview with Kentucky Senator Rand Paul. We recognize that his voice mirrors the nature of alternative investments: unique, non-traditional and uncorrelated to the partisan chatter that dominates today's political environment. Whether you agree or disagree with his positions, he challenges the status quo and offers new approaches to our nation's societal issues and financial problems.

At its debut, The Alpha Pages is the by-product of inspired collaboration and perspiration.

We are thrilled to get this first issue out to you—and we hope you enjoy it.

Jeff Joseph
@alphapagesceo

PHOTO: GAGE SKIDMORE (R)

THE ALPHA PAGES

REAL TALK ON
ALTERNATIVE INVESTMENTS,
BUSINESS & FINANCE

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Inside THE **ALPHA** PAGES **Vol.1**

Senator Rand Paul

Senator Rand Paul (R-Ky) is considered by many to be the most outspoken defendant of free-market capitalism in the U.S. Senate. A son of former Texas Congressman Ron Paul, the Republican Kentucky senator is a strong advocate of auditing the U.S. Federal Reserve and has drawn both praise and criticism for his minimalist stance on U.S. military and foreign intervention.

For the print debut of The Alpha Pages, Senator Paul talked to us on a wide range of topics, including the rise of Bitcoin, his fight to audit the Federal Reserve, his views on the ongoing Iraq crisis and if and when he might announce intentions to run for President in 2016.

There's a conventional wisdom that the "victims" of high frequency trading are small investors and that the markets are rigged. Some would maintain that high frequency trading is just an example of technology being developed to its fullest capacity and makes for more efficient markets.

Where do you fall in this thought spectrum?

PAUL: I would say that I'm not for most regulation of trade, other than rules that would involve prohibitions against fraud and deceit, and some that promote greater transparency. For the most part, we are adults trading in the market, and we need to be people who are going to buy or beware.

Minnesota-based medical-device maker Medtronic recently purchased Covidien for $42.9 billion. The company will now relocate its operations overseas to reduce its tax burden. What do you think is responsible for the record number of corporate inversions since 2012?

PAUL: I blame the tax code and those who wrote the tax code. I'm on the Senate Permanent Subcommittee on Investigations that Senators Levin and McCain brought in Apple executives to read them the Riot Act, make them swear under oath, and chastise them for maximizing profit and minimizing taxes for their stockholders.

During that hearing, I said, "If you want to see the root of the problems, rather than bringing Apple in, we should've brought a big mirror," so Congress could look in the mirror. The problem arose from legislators who wrote a crummy tax code. The problem arose from having a corporate tax rate that is twice what Canada's is and nearly three times what it is in Ireland. Money goes where it is welcomed, and money has been flowing overseas. I don't fault corporations for doing what they're supposed to do, which is to maximize their profit.

I have been beating the drums for repatriation and want to do it again. I have considerable momentum on both the Republican and Democrat sides of the Senate aisle.

If we don't do it, Medtronic and Pfizer are examples of what will continue to happen. We received a list of about 44 different companies that have done these inversions. And every day you wait, every month you wait, every year you wait, for some holy grail of tax reform, many more companies will do what is in their best interest, and that's to minimize taxes.

It really offended me when the Senate brought in Caterpillar as well.

I said, "Look, instead of chastising Caterpillar for making money overseas – instead of reading them the Riot Act – you should be giving them a medal for

By **Jeff Joseph and Garrett Baldwin**
Photography by **Gage Skidmore**

staying in business for nearly 90 years, having 55,000 employees, and paying hundreds of millions in taxes in the United States."

I'm a big believer the sooner we do repatriation, the better. My personal preference would be a repatriation tax rate of about 5 to 5.25%.

In some high-tax states, when you combine local, state, and Federal taxes, plus property, sales, social security, and Medicare and other hidden compulsory taxes and fees, many Americans (particularly C-Corp entrepreneurs) are now paying up to, if not more than, 50% of their annual income to governments. What should be the maximum amount of taxation?

PAUL: The tax rates in this country are obviously far too high. We have some of the highest tax rates in the world, and we're seeing the results firsthand. Citizens are leaving the country at astonishing rates, and companies like Pfizer, Medtronic, and countless others are leaving the country for lower tax jurisdictions. We are going to pay a large economic price if we don't implement a more competitive tax code.

For starters, we should all agree to allow businesses that earned revenues overseas to repatriate that capital to the U.S. at a low rate. Some estimates suggest there is as much as $2 trillion overseas waiting to come home. Second, we should have a simple and efficient flat tax system with one low rate.

The federal government ran an annual deficit of $436 billion last fiscal year. Is there any urgency by either party to rein in federal borrowing or deficits?

PAUL: Unfortunately, no. There should be some urgency with a $17 trillion debt, and since I've been here, we've averaged almost $1 trillion deficits a year.

It's come down a little, but there should be more urgency.

What are your thoughts on plans by the Federal Reserve to taper stimulus plans and eventually raise interest rates?

PAUL: The main thing is — from a historic perspective – we ought to ask the question: Are we proud of an agency that has lost 96% of the value of the thing the Fed is supposed to protect? Would that be a success or a failure?

Have we had more or less upheaval, greater or fewer panics or crashes since the Federal Reserve or before the Federal Reserve? There is an objective argument that we did have problems before the Federal Reserve... but we still continue to have problems with the Federal Reserve.

The fundamental question about the Federal Reserve and monetary policy in general that we should ask is, "How important is it that the market should decide prices?"

If you ask most free-market economists, they'd say, "Absolutely. The price of bread, the price of computers, the price of labor, all that should be free and open to the marketplace."

However, their one inconsistency is they think interest rates should be set by government.

It's amazing that so many people who favor free markets and free pricing support a completely centralized, completely arbitrary setting of the price of money. This led to the great housing bubble and the great housing crash.

In a normal marketplace, as things began to heat up and you had more builders and more people borrowing money, as the demand rose for money, so would the price in the form of interest rates. The rising price of money would slow down the economy, and you'd have a reversal.

But you wouldn't get to a point where you reached insane levels of housing prices, where people were doubling and tripling their house's price every year or two. The craziness of that doesn't happen under capitalism. It doesn't happen under a free-pricing mechanism.

> "It's amazing that so many people who favor free markets and free pricing support a completely centralized, completely arbitrary setting of the price of money."

The debate we ought to have in this country is: Should the price of money be arbitrarily decided by one central authority? Or should the price of money be decided by a marketplace?

Do you believe the Federal Reserve is done with its stimulus efforts when QE3 ends?

PAUL: I try to take them at their word that their goal is not to do another round of easing. But, if they see a slowdown in the economy, or if we continue to see a trend of negative growth like in the first quarter, I think they'll be scared out of their wits, and they'll start blowing money back into the economy.

What potential measures do you fear the central bank and the Treasury Department would take in the event of another financial or debt crisis?

PAUL: The economy remains structurally fragile. Since the financial crisis, the government ran trillion-dollar deficits, with a great deal of assistance by the Fed's quantitative easing policy. Interest rates have remained drastically low for a prolonged period. We bailed out Wall Street and some of the largest corporations, like the automakers.

I fear this administration would apply more of the same medicine – more bailouts, more failed stimulus spending plans, more regulation, and increased quantitative easing from the Fed by flooding the economy with even more dollars.

When Wall Street makes bad decisions and loses money, the middle class and the rest of us should not be responsible for that in any way. I'm not for any of the bailouts of Wall Street just as I'm not for any subsidization of different commerce.

What are the latest developments in your quest to audit the Federal Reserve?

PAUL: We'd like to start to audit the Fed. There seems to be a significant public consensus for it. There was a significant consensus for it in the House of Representatives, and this is the frustrating thing of how Washington works.

I've been working for three years to get an audit. The interesting thing is it's also tied to the filibuster in the sense that had Harry Reid not executed the nuclear option and broken the rules to change Senate rules and we still had the filibuster there's a chance I could have held some of these nominations long enough to get the audit for the Fed voted on.

I couldn't guarantee passage, but I could have gotten votes.

The only way they'll ever give it to me is if I could use my leverage to force them to do it. Unfortunately, when they did the nuclear option – essentially breaking the rules of the Senate to change the rules – that leverage disappeared.

Shifting from the Fed to gold, Germany's central bank is recalling 674 metric tons from vaults in New York and Paris, and the progress has been quite slow. By March, they only received 69 tons to Frankfurt. Given this request, do you support an audit of our gold reserves as well?

PAUL: It doesn't breed a lot of confidence that it's taking them that long.

But yes, we should. If you audit the Fed, we probably ought to audit our gold supply as well. Now, I don't want to be depicted as a person who thinks the gold is gone or has been stolen. But it's been a while, and you should count periodically to make sure it's there. An audit would be in order.

When was the last audit of the gold supply?

PAUL: That's a good question. I don't know.

It's been quite a while, but it's interesting that Germany wants its supply. There have also been rumblings of other countries looking to link gold to their currency. It'd be interesting to know if some other country decided to link their currency to gold, would that lead to a rippling effect around the world?

At the very least, we should study the issue of whether or not preserving the value of the dollar matters and whether we've done a poor job at doing so, which I think would be the conclusion.

With China and Russia trading bilaterally in their own currencies and the BRICs looking to reduce reliance on the dollar, is anyone sounding the alarms on the United States' reserve currency status?

PAUL: America has benefited from reserve currency status for a long time.

Unfortunately, the status quo is in jeopardy. The rest of the world is watching us closely – they're noticing that our debt is becoming unsustainable, much of which is being financed by our central bank's printing press. The world is taking notice that our fiscal and monetary house is not in order. If the world ditches the dollar, and America loses dollar reserve status, it will certainly have a negative impact on our way of life.

Speaking of currencies. Bitcoin has garnered recent attention from regulators. What is your position on virtual currencies and their promise going forward?

PAUL: I'm all for allowing people the freedom to trade in whatever they want to, and if they are successful, I don't want government to be the reason that they're unsuccessful.

I support freedom of trade and the freedom to allow people to make contracts. I've been intrigued that some people who I consider to be intelligent analyzers of the marketplace, like Marc Andreessen, are sold on Bitcoin.

I haven't been as sold on Bitcoin because it's still a concern with the recent [Mt. Gox] theft that if you have something that really has no backing, is that an illusion or reality? The intriguing thing Andreessen wrote about was the savings of two or three points for retailers who use Bitcoin is enormous.

I think it'd be cool if companies like Walmart, Target, Kroger, and Kmart all got together, 10 big retailers, and said, "We're going to do our own currency to save the transaction fees, and we'll back it up with a pool of stock."

I'd be much more inclined to own "Wal-Coin" or something similar if I knew I could exchange it for stock or it was redeemable for something of value.

In terms of free market ideology, what amount of current federal spending violates your free-market, limited-government principles?

PAUL: I wouldn't say there's an exact line.

I would say the first line we ought to try to get to is that we should spend only what comes in, and that is not a question of the size and scope of government.

I don't think it's wise to keep borrowing so much money for just the traditional things that a government does every day: the payments to senior citizens, payments for welfare, payments for foreign aid, you name it.

Would I prefer a smaller government? Yes.

The government would be smaller if we only spent what comes in. I'd be somewhat satisfied if we could spend what comes in really. If the government would be smaller, then ideally we could show that the marketplace could take care of many so-called government functions that I'd like to outsource to the private sector.

Incentives matter. We've now discovered that our federal agencies have their own incentives to maintain the status quo: demanding more federal dollars, cooking figures, or hiding evidence for pay bonuses. Will Congress finally punish government employees who exploit Americans' trust?

PAUL: In the recent Veterans Bill, we gave the President the ability to fire people in the VA. Whether or not he'll do it is another story.

It really is a crime against the public that when government employees commit malfeasance, you can't fire them. At the EPA, they caught one guy who was downloading porn six hours a day on his government computer. In a speech, I said, "Well, at least we caught him. He's been fired, right?"

No. He's a government employee, and you can't get rid of them.

And so is Lois Lerner of the IRS. Even with all these problems, you just can't get rid of government employees. And it's why they shouldn't have collective bargaining for federal employees.

Even Franklin Roosevelt recognized that people receiving taxpayer money have such an influence on elections that there would never be a true contractual debate. Government unions get what they want, which is what we've done for 40 years.

You mentioned Lois Lerner at the IRS. It's been big news that her e-mails disappeared due to a "computer crash." Is it time for a special prosecutor to investigate this matter?

PAUL: Yes. How long have we been in this scandal? A year? A year and a half?

And nothing's happening.

I like that we have now a special committee investigating Benghazi, but there ought to be one on the IRS.

I think one thing that galls people – whether you're a Republican, Democrat or Independent – is the fact that government could be used to bully and punish people who are your political opponents. It goes against everything that most Americans want in their government.

Do you agree with the President's stance on not sending ground troops to Iraq? What would you have done differently to better stabilize the country and the region?

PAUL: Those who are criticizing the President – saying he should do more – they're also the people who got us into this quagmire. They're also the people who told us there were WMD's, told us we would be greeted as liberators, that there would be no problem, that it would be a cake walk, and it would be better for our country and better for the Middle East.

The Middle East is much less stable now than it's been in a long time, and definitely much less stable than when the Iraq War began. The consequence of removing Sunnis from power in Iraq has emboldened the Shiites not only in Iraq, but also in Iran.

Iran is in a much stronger position since the Iraq War. And we now have the confusion that we are arming rebels in Syria that are aligned with the group that's taking over Iraq.

We're fighting against Iranian proxies in Syria, but now would ostensibly be supporting Iranian proxies in Iraq. There's so much muddle to this, and so much contradiction, that it'd be a mistake for us to get back involved in this war. I've been, for two or three years now, trying to rescind the authorization of force for Iraq because they say the war's over.

The problem is that things have been lingering there now for 11or 12 years and they maintain [the authorization] gives them power to go to war any time they want, but 12 years ago [we had] a completely different Congress and a completely different public, and I don't think that you get permanent license to go to war.

The country needs to have a debate over it, and decide whether Americans are interested in war. That would mean the potential of another 4,000 soldiers dying to retake cities that the Iraqis apparently weren't interested in defending themselves before they took off their uniforms and ran.

I see nothing good about us getting involved there.

> "The war on drugs has trapped tens of thousands of young men and women in a cycle of poverty, disenfranchisement and incarceration. Many of these young people could escape this trap if criminal justice were reformed."

Which voting bloc is most up for grabs in 2016 for Republicans?

PAUL: Republicans need to compete in a variety of new voting blocs or voting blocs in which they haven't been successful.

That would include African-Americans. I'm spending a lot of time traveling to our nation's cities, saying, "Look, your city is in bankruptcy. Your city is in ruins. There are Republican ideas for dramatically lowering taxes to stimulate your city again and to invite business in. These ideas include free trade and increased immigration into some of our cities to get new people with entrepreneurial skills and capital." There's opportunity for us there.

There's opportunity for us with the Hispanic and Asian-American populations. But to tell you the truth, there's only upside because we've done pretty poorly with those groups. It's going to take someone who reaches out, reaches out to the youth on issues of privacy and that the government needs to be reined in on the NSA's surveillance of Americans. There are all kinds of opportunities and we're not going to win with the same old, same old. It's going to require us to rehabilitate the party in a bigger, broader way.

One final question. When a U.S. Senator says that he or she is exploring the possibility of running for president, what does that process entail?

PAUL: From my perspective, it requires discussions with family about the rigor and the arduous task of running for President. Then, you need to see if you're in a place where you can win. I won't do it if I don't think that I'm being considered as one of the top-tier candidates and that I have a chance of winning. All of this will be factored in, and we won't make a decision until spring of 2015.

This IPO Could Change Sports and Investing Forever...

A new investing trend revolutionizes and monetizes personal branding.

The initial public offering (IPO) schedule of 2014 features big digital names and bigger dollar signs. Traders are jockeying for position at possible IPOs of ride-sharing startup Uber and Chinese e-commerce giant Alibaba. But another pending IPO has slipped off the radar.

It's one of the more revolutionary alternative investments to hit the United States in years, but you won't hear CNBC or even ESPN discussing its potential to change the American sports industry. The underwriter has already announced its first successful dividend from its previous IPO, and the cash flows from this new branding concept stand to be large if the company executes its long-term marketing plan.

But there's a catch. Actually, it's a *pass*.

This IPO aims to profit from the future economic success of NFL quarterback E.J. Manuel.

As alternative investors take notice of the Fantex exchange, this emerging model could change fantasy sports, the National Football League and the sports entertainment market forever.

football futures

E.J. Manuel is the latest NFL star to cash in on an emerging sports investing trend.

Fantex, a sports marketing stock exchange, allows traders to capture a share of contracted athletes' career earnings potential. With E.J. Manuel, it works like this:

On its exchange, Fantex will offer 523,700 shares of stock at $10 per share on the second-year quarterback. In return, Fantex will pay Manuel almost $5 million up front to receive 10% of his future earnings tied to his brand.

These future earnings include any NFL contracts, marketing endorsements, post-career broadcasting contracts, and any other checks he'll cash through his NFL brand.

Meanwhile, Fantex and shareholders will help promote Manuel's brand through intensive marketing efforts to help build his value and, ultimately, correlating stock price. Fantex's official stock prospectus (formally filed with the Securities Exchange Commission) states the firm expects Manuel to earn $104 million over his career.

The break-even price for the stock falls at a little more than $48 million in earnings (before taxes), which requires Manuel to play well enough through his initial contract to secure a big second payday and guaranteed money. If Manuel flames out in the NFL by 2017, he takes his $9.4 guaranteed rookie contract and Fantex's $5 million, and retires at 28.

If he makes $104 million dollars over his career, Fantex shareholders earn a 10% cut, or $10.4 million, which are paid out in distributions over time.

hall of fame or (buffalo) bust...

Trading under Fantex stock symbol EJMLL, Manuel's shares create new speculation on the future of modern sports and expectations of athletes and their brands.

It's not a bad hedge for E.J. Manuel, especially if he turns out to be more Trent Edwards (another former Bills first-round quarterback pick) and less Hall of Famer Jim Kelly.

But with so much on the line, how do investors know that Manuel is the best character guy?

Fantex CEO Buck French said that Fantex employs a lengthy due diligence process.

"Our [due]diligence process around the character of individuals is obviously top on our list, but it doesn't mean we'll be 100% accurate. In general, these individuals are good guys. They're still human beings, and they're males in their 20s to early 30s, which by definition means they're going to make mistakes. But, at the end of the day, our expectation is to work with guys who aren't going to do a bunch of stupid things. That's part of our diligence in who we pick to work with."

Personal branding as a financial investment is an emerging vehicle to capture cash flow. And any blow to the brand, whether it be a person like Tiger Woods or a large multina-

By **Garrett Baldwin & Jeff Joseph**
Photography by **Greg Koch**

tional oil company like British Petroleum in the wake of an oil spill, will deliver a blow to the stock and value of the brand.

However, in the case of both Woods and BP, time and personal effort have slowly restored brand image. Simply put, a mistake by E.J. Manuel isn't going to doom the long-term investment in his stock.

Fantex's other athlete currently trading is San Francisco tight end Vernon Davis, whose shares jumped quickly after his IPO. Still, Davis has an injury history, and his team has a habit of changing its playbook constantly, fostering a questionable commitment to his statistical success.

Davis needs to generate another contract of at least $33 million and several high-income endorsement deals for investors to receive a return on capital. Without Davis putting up big numbers—due to injury, underperformance or a less tight-end friendly playbook—would he secure that next big contract?

This is an important question, particularly as reports emerge that Davis may holdout during training camp over his desire for a new deal with the 49ers. The Fantex prospectus includes a clause that if Davis retires within two years of his NFL contract, the exchange has the discretion to force the tight end to repay $4.2 million, which is actually higher than the $4.0 million Davis received for 10% of his brand. (Fantex can also audit athletes according to their agreements.)

Trading has been halted before. The hotly anticipated shares in Arian Foster, a star running back for the Houston Texans, froze after a back injury preceded his IPO date.

selling a new industry

For every new company, new industry or new asset class, the future is unknown.

With limited operating history, it becomes difficult to evaluate the platform's financial potential. Fantex's model raises questions and concerns, ones that French aims to abate through extensive due diligence and preparation to bring athletes to the market. In the E.J. Manuel's prospectus, it lists every major risk, promotes the upside, and encourages investors to make an informed decision.

For example, there's the risk of an NFL player not paying distribution obligations. For anyone who has seen ESPN 30 for 30's documentary "Broke"—which focuses on professional athletes' propensity to squander multi-million dollar contracts—one might worry about the return on investment. However, French cites the company's judgment in deciding which athletes offer the most promise, and explains that athletes today are gaining a better understanding of how to market themselves and make more responsible decisions.

The NFL could easily erect new barriers to prevent Fantex from offering new contracts, and the exchange can terminate contracts and dilute stock without shareholder approval. However, French said all has been quiet from the NFL's office and he's hoping that Fantex improves the NFL's brand.

"We worked with the NFL Players Association. The league is going to wait and see what happens because at the end of the day, if we deliver, it's going to increase fan engagement."

French is optimistic about the NFL, the growth of the sport, and, of course, the boost of salaries that investors may be able to tap into for both share appreciation and dividends. "The salary cap of the NFL is growing way faster than U.S. GDP," he said.

E.J. MANUEL

A career-ending injury is perhaps the biggest threat to future cash flows, and there isn't any insurance against it due to the staggering costs.

"We don't carry insurance on the athlete in the contract," French said. "The insurance for injury risk would eat up all the brand income we're collecting, so it's not necessarily worth it. We appropriately discount for those risks. We don't carry insurance. By the way, most players that are in the pros don't either. It's just prohibitively expensive."

Finally, there's the Moneyball aspect to the investment.

The underwriters say E.J. Manuel is an undervalued asset when it comes to the potential of unleashing his brand potential. But properly forecasting Manuel's value is a challenge. The prospectus notes: "The valuation of our contracts and expected return on investment (ROI) requires us to make material assumptions that may ultimately prove to be incorrect." Again, French highlights the team's quantitative prowess.

"We have a quantitative analysis team and we go out deep in local models. So, the first step is to forecast how long they're going to play," he said.

In E.J. Manuel's case, the company forecasted 10 years. Since Manuel already has a four-year contract, the quant team examined contracts signed by similar players between years four and six. Using a comparative weighted system, they examined a data set that focused on rookie quarterbacks who qualified for the NFL passing title, a list that includes Manuel.

The prospectus expects Manuel to earn a three-year contract in 2017 worth $40.59 million. French is optimistic that they have a large enough sample size to provide a strong prediction of Manuel's future financial profits.

"This is all statistics. We looked at all quarterbacks drafted and retired between 1980 and 2012 who qualified for the NFL passing title. That's a 32-year overarching dataset. So out of that entire 32-year period, 52 rookie quarterbacks qualified for the passing title, and 28 of them retired by the 2013 NFL season. That's how we determined the 10 years. That included players from Troy Aikman to Rick Mirer, from Tim Couch to Ryan Leaf. All of those players exhibited the same attributes [for] qualifying for the rookie passing title as E.J. Manuel."

Factored into those averages are the high-eight and low-nine figure deals of Ben Roethlisberger, Matt Ryan, and Joe Flacco. But the equation then factors in contracts of NFL has-beens and back-ups Matt Leinert, Joey Harrington, Trent Edwards, Kyle Boller and David Carr, among others.

And while Bills fans probably won't like hearing Manuel's name in the same sentence with Ryan Leaf, investors might like to hear that Manuel could earn more money than Tom Brady in his career if he avoids injury and becomes a viable superstar quarterback.

Such potential is music to his shareholders.

cashing in

To date, the new Fantex model has seen quite a bit of activity. French said they've seen investments ranging from one share (for $10) to levels in excess of $200,000.

Although it takes a few minutes for potential investors to understand how the process works, the focus is to understand what similar risks and return characteristics that Fantex shares carry in comparison to traditional and alternative investments.

"We hear from potential investors that our assets are potentially non-correlated dividend stocks with a call option," French said. "It's difficult to say what they are most similar to and each investor will evaluate how Fantex tracking stocks are similar or different to other investments."

The company has already declared a dividend on Vernon Davis for $0.70 per share.

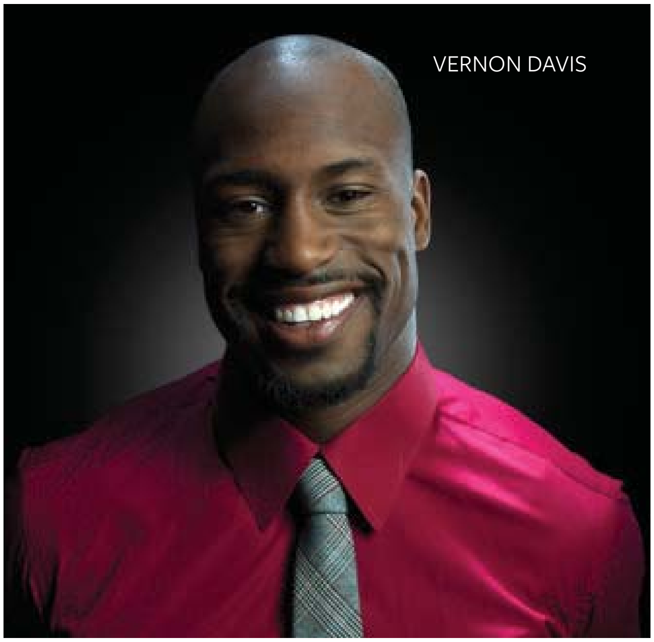
French said speculation is a great pastime, but the company is doing what it can to prove it is a successful asset class. The declaration date is expected around Aug. 18, the time the San Francisco 49ers will play the Denver Broncos at the new Santa Clara stadium.

"Our goal—as we collect and invest in the brand—is to have cash available to provide dividends to shareholders, " French said. "The tax adjusted internal rate of return (IRR) on these estimates, [are in the] low- to mid-teens if our estimates are accurate. This return of capital function of the dividend makes it an attractive alternative investment."

a winning team

Fantex isn't the pipe dream of dorm-room speculators without a business plan. Its executive team has an impressive roster of finance and sporting pros.

French said his management team has "done it before," which could be an understatement when looking at the roster.



Its three founders are David Beirne, Buck French, and David Mullin.

Beirne was a partner at Benchmark Capital. French founded OnLink Technologies, an e-commerce software firm that sold for $609 million in 2000. Mullen's history includes multiple success stories in startup finance.

The management team also includes Hall of Fame quarterback John Elway, golfing legend Jack Nicklaus and former COO of eTrade Josh Levine.

"The tax adjusted internal rate of return (IRR) on these estimates, [are in the] low- to mid-teens if our estimates are accurate. This return of capital function of the dividend makes it an attractive alternative investment."

Fantex is raising capital, it has interesting potential, and athletes are intrigued about cashing in and building their brand for a 10% upfront cut .

If this takes off, it opens a number of untapped possibilities in personal branding. French said that athletes they've done business with have already positioned themselves for life outside of football, and that they are examining a number of opportunities that will boost their long-term cash flows.

"Arian Foster has William Morris Endeavor, that's a big Hollywood side of the equation," French said. "Vernon Davis was a broadcaster-at-large for NBC Sports during the Sochi Olympics. He's recently written a guest column for [CNNSI's] Monday Morning Quarterback. Arian Foster was in the movie Draft Day. We didn't facilitate that, but our goal is to put these athletes in situations that expose them to what their post career could be during their offseason."

And the deals could quickly transcend into other sports in the U.S. and abroad and ultimately migrate to other high-dollar, marketing-intensive industries including film, music and television.

"We're obviously interested in crossing into other sports," French said. "We're focused on the major sports here in America first. Football is the top one, and that's why we started there first. We're talking to golfers, baseball players [and] everyone [involved in sports]."

Naturally, the company also has its eyes on Hollywood.

"Entertainers would be after sports. We just think the Fantasy Sports arena gives a natural segue with people doing their statistical due diligence and forming opinions."

Fantex is creating an alternative investing platform that could be recreational investing for some and serious for others. As the company evolves, French recognizes that his team must deliver for investors or Fantex risks being simply a fad.

"Investors are going to get entertainment value, but over time that's unsustainable. That's why we have to deliver as an investment vehicle. My job as the CEO is to build a return for our investors. You can only have fun for so long. The entertainment factor gets us over the hump in the early days, but in the long run it's going to be based on the return."

More Q&A with Senator Rand Paul

What surprised you most about the political system, your colleagues, or even the electorate now that you've been in office for four years?

PAUL: What surprises me is how quickly you can hit the ground running, how quickly you can be a part of getting amendments on bills, getting votes on bills, and really influencing the process.

Many people think you need to have been elected to another office to come to the U.S. Senate or to come to Congress -- that you need to have been a mayor or a state legislator.

That's not true.

It's actually a fresher perspective to have people who came from the medical community like I did, or from business like Sen. Ron Johnson (R-WI) did. People who are not career legislators or career politicians offer a fresher perspective. There's no monopoly on knowledge in Washington.

In fact, they need more turnover.

I support term limits, and I'm also for the idea that we should have more citizen legislators, who come and go from the business community rather than just people who do this forever.

You recently announced support of restoring voting and other civil rights to those who have been convicted of non-violent criminal offenses. Why is this such an important issue to you?

PAUL: The biggest impediment to voting and employment in our country is a criminal record. The war on drugs has trapped tens of thousands of young men and women in a cycle of poverty, disenfranchisement, and incarceration. Many of these young people could escape this trap if criminal justice were reformed, if records were expunged after time served, and if non-violent crimes did not become a permanent blot preventing employment. These reforms give non-violent ex-offenders a second chance at achieving the American Dream.

Do you feel the security of the dollar is a legitimate campaign topic for 2016?

PAUL: Reducing our debt, reigning in Washington's out-of-control spending and holding the Fed accountable should be on the agenda of every candidate in 2016.

The United States is one of two countries that forces citizens to pay taxes on income earned overseas. What is your stance on this taxation?

PAUL: Income ought to be taxed once and not twice.

How should (hedge fund) "carried interest" be taxed?

PAUL: I don't believe we should be raising taxes for anyone, but we should try to reform both the individual and corporate tax system by moving to a flat tax at a lower rate.

What are your thoughts on recent movements to curb or restrict online poker?

PAUL: I'm opposed to restrictions on online gambling. The government needs to stay out of that business.

What are you reading these days?

PAUL: I am currently reading Act of War by Brad Thor and re-reading Conscience of the Constitution by Timothy Sandefur with my summer interns.

By **Jeff Joseph and Garrett Baldwin**
Photography by **Gage Skidmore**

Will liquid alts' performance sustain future asset flows?

Forget questions about whether liquid alternative funds are here to stay. The surge of inflows to liquid alternative funds suggests that debate is over.

According to McKinsey & Company projections, inflows to liquid alternative funds will reach $900 billion by the end of 2015. That surge is likely coming at the expense of traditional hedge fund investments.

A study by Barclays Prime Services shows that capital flows into liquid alternatives—also known as hedge-like mutual funds—are outpacing dollars going into hedge funds. Liquid alternatives grew by 43% last year, while hedge fund assets increased by 15%.

Liquid alternatives are the fastest growing category of '40 Act structures, even though they comprise a tiny part of the mutual fund industry. Recent data shows that the amount of capital controlled by alternative '40 Act structures stands at $154 billion, which is just 1% of the entire mutual fund industry. In comparison, hedge funds control $2.7 trillion of capital.

The trend is picking up, particularly as conservative institutional investors like pension funds enjoy '40 Act funds due to the lack of performance fees, reduced leverage, and beta-centric returns.

The alternative '40 Act fund universe is in its infancy, with the most mature funds being no more than five years old. While industry watchers like McKinsey predict the industry will continue its exceptional growth, only time will tell if these vehicles can weather a storm.

Rather than debate the permanence of alternative funds, investors should instead ask a more important question:

Do increased liquidity and the lower fees provided by hedge-like mutual funds outweigh the lower expected returns?

optimism remains high

The hedge fund versus alternative funds is a false debate thanks to industry advocates who are attempting to promote their products and services. They've said alternative funds don't provide strong returns, aren't managed properly, or that investor sentiment is dwindling.

But there is no shortage of optimism surrounding the launch of alternative '40 Act funds.

"Clearly, this is the fastest growing category," said Victor Viner, president of V2 Capital, which specializes in volatility-based equity derivative strategies. V2 Capital manages $500 million in a hedge fund vehicle, but is rolling that money over into a '40 Act fund later this year.

"We are seeing more funds that can provide liquidity going into the liquid alternatives space for all of the obvious reasons from an investor perspective," said Viner, adding that the main benefits of liquid alternatives include transparency, liquidity, and lower fees. But despite V2's move into the liquid alternatives space, Viner warns that most hedge funds cannot be shoehorned into mutual fund structures.

Liquid alternatives are expected to **triple** by 2017.[1]

"Not all, and not most, of traditional hedge fund strategies can exist in these structures. In our case, we're lucky because everything we do and have done for four years falls well within the framework of what can be done in a '40 Act fund," said Viner.

The '40 Act rules include limiting leverage to 33%, having less than 15% exposure to illiquid assets, and in most cases a prohibition on charging performance fees.

Adam Patti, CEO of IndexIQ, a pioneer in the liquid alternatives space, agrees that only certain strategies will work in a '40 Act structure.

"The major hedge fund categories—long/short, market neutral, global macro— can [be] provided in a '40 Act fund fairly efficiently," he said. "Strategies that require a significant amount of leverage won't work. Strategies that tend to

By **Deirdre Brennan**

[1]Hewitt, Ennis Knupp, Barclays, Prepin [2]Goldman Sachs

depend on illiquid, arcane asset classes won't work."

Instead of having a "one of the other philosophy" when comparing hedge funds and liquid alternatives, investors could see them as complementary products.

"The majority of our assets ($1.4 billion) are in a multi-advisory product that is basically the S&P 500 of the hedge fund market," said Patti. "It is designed to give you the risk/return profile of a universe of a hedge fund of funds.... You would use that as a core product in your portfolio and then go out and find alpha-seeking hedge funds as satellites around it."

a false sense of security?

One of key selling points of liquid alternatives is transparency.

But while transparency may seem like an obvious benefit, Bill McBride, executive vice president at quantitative research and technology specialist Markov Processes International (MPI), wonders whether having access to the underlying investments does any good.

"The Securities and Exchange Commission (SEC) says investment advisers are fiduciaries and need to verify that a fund is executing its stated strategy based on available data," explained McBride. "How many advisers can internally price and net the exposures of the thousands of positions (including complex derivatives) in an unconstrained long/short bond fund?"

McBride added that technology to tackle the data issue is rapidly being developed.

"There is room to mature and we think it will happen quickly. Investors will seek advanced systems and analytical techniques to process liquid alternatives' holdings data, net exposures and grasp a fund's strategy and potential risks, while managers will seek ways to enhance communication to investors, all potentially facilitated by SEC mandates as attention is increased on this rapidly growing space."

Patti, who touts transparency, also thinks it is important for advisers and investors to "look under the hood" and get a better understanding of what is in each product.

"Advisers don't know what they are getting and that's a big problem," said Patti, who believes educating advisers and investors should be a top priority for the industry as a whole.

Andrew Ross, associate director of Pacific Alternative Asset Management Company (PAAMCO), which has approximately $9 billion in discretionary assets under management, points out that transparency is not unique to the '40 Act fund structure.

"Institutional investors can receive transparency and independent oversight of their hedge fund investments in their traditional private placement hedge fund investments," said Ross. "Some institutional investors are already receiving all of their positions on a monthly basis with a less than 30-day lag, which is far superior to the required 60-day lagged, quarterly transparency of liquid alternatives."

Of course both pale in comparison the managed futures, which offers daily transparency in the typical managed account structure.

PAAMCO, specializes in fund of hedge fund structures and caters almost exclusively to institutional investors, and has no plans to enter the '40 Act space.

"At this point we do not feel that this product is appropriate for institutional investors and we do not have a view on its suitability for retail investors," said Ross.

liquidity and systemic risks loom

While liquidity is usually touted as a benefit for investors, McBride feels that just like transparency, investors may be relying too much on the idea of it rather than the reality.

"How can you have daily liquidity in a $4 billion equity long-short fund?" McBride asked. "The senior hedge fund managers I have spoken with have expressed serious concern that large liquid alternatives vehicles could have trouble raising cash very quickly if executing a truly hedge fund like strategy."

Liquid alternatives are in the early stage of a growth trend that could produce **$2 trillion** in AUM in 5–10 years.[2]

The SEC is also voicing its concern. The regulatory agency has already begun investigating 25 liquid alternative funds on structural matters of leverage and daily liquidity and the associated risks. PAAMCO's Ross also believes that promises of daily liquidity are overstated.

"The daily liquidity of liquid alts can create 'bank-run' risks because of the asset-liability mismatch problem created. Although liquid alternative funds have stated daily liquidity, current rules actually allow these funds to operate without the ability to liquidate all underlying investments in a day," explained Ross. "Although 'bank-run' risk exists in all mutual fund structures because the investors in them have daily liquidity, the risk is heightened with liquid alts due to the relative novelty of the strategy to the retail investor."

The regulatory efforts aren't likely to end just on concerns about liquidity. In fact, liquidity fears will likely generate expanded efforts by agencies to dig deeper into how these funds generate returns, their risk management strategies and their marketing practices.

liquidity penalties on performance

Despite concerns about increased regulation in the space, liquid alternative funds provide one big benefit that isn't going unnoticed. Lower fees.

The question investors must ask is:

Will the lower fees be enough to offset the difference in performance?

One recent study by advisory firm Cliffwater found a 1% drag on performance for hedge funds going into '40 Act structures. But that isn't shaking faith in these funds.

"Call it the liquidity penalty," said Viner, who despite the potential lag in performance believes the lower fees will more than offset gains that can be made in a hedge fund vehicle.

"A lot of managers are highly correlated to the S&P and they are producing beta, but they are charging 2% management fee and 20% on profits," said Viner.

Over time, one can expect that alternative funds and their hedge fund cousins will be debating the merits of their structures and ultimately their performance. For now, the jury remains out. As for solid, historical evidence on the long-term returns of hedge funds versus those of liquid alternatives, there isn't any.

As the industry takes shape, time will tell which side is able to earn the bulk of new asset flows. For now, it's up to investors and the media to do the diligence.

Bitcoin and Online Poker: The intersection between gambling and speculation

Bitcoin Poker Wagering is on the Rise, Creating a New Class of Speculators.

As bitcoin evolves into a more stabilized currency market, the digital exchange should be on every poker player's radar. One of our fascinations with online poker players using bitcoin is the intersection between speculation, gambling, and optionality.

There has almost always been a connection between investors and gamblers. Although not identical, shared similarities in risk assessment, allocation of assets, and an appreciation for outlier events are quite evident.

That is why we wanted to provide an assessment of the growing use of bitcoin in online poker and gaming, highlighting the benefits and challenges for the road ahead and issues that poker-playing virtual currency speculators should consider in the future. We turned to our friends at PokerNews.com for an update on this growing trend.

The recent surge in online poker sites accepting bitcoin has created a wealth of opportunities for bitcoin speculators and gaming enthusiasts alike. Bitcoin offers the potential for appreciation in the crypto-currency's value and profit potential from strategic play on the virtual poker felt.

The nature of bitcoin's highly watched value offers online gamblers a chance to become currency speculators thanks to the fluctuating value of bitcoin. This opportunity increases a player's (investor) chances of maximizing their playing R.O.I. (Return On Investment) by wagering their current holdings in the hopes of increasing their poker bankrolls and profiting at an even greater clip because of bitcoin's ability to increase in value.

Poker players who use a Bitcoin-driven site can see increases in the value of bitcoins based on the current trading price. This means that if you won or purchased a bitcoin when it was valued at $450 in April, and then you sold it on July 10, the value would have jumped to roughly $620.

The ability to profit twice off one investment (a player's poker bankroll) is an attractive offer for those that understand the digital currency and speculation. A player can make good money on the growing number of poker sites that accept the digital currency by winning bitcoins and watching their profit margin increase the same way a stock does.

The obvious goal for the speculative bitcoin poker player is to buy the currency on the cheap, win more bitcoins playing poker, and sit on them so they make money without having to risk the bitcoins already won at the tables.

Of course, as with stocks, bitcoin could decrease in value. Like any precious traded commodity, the value of a bitcoin can change very quickly depending on numerous factors as seen with the dramatic highs and lows. This is best evidenced by the recent surge that saw it hit $1,000 per bitcoin and then several days later drop to $572 after the U.S. shut down a major Website called Silk Road that also used the currency except for more nefarious purposes.

There's more than just profit potential for the Bitcoin poker player, as the growing phenomenon must address other important issues like regulation, transaction times, anonymity, and, of course, criminal activity.

take the money and run

One of the most vaunted benefits to bitcoin poker is the ease of transactions when withdrawing winnings from the sites. Users are sites like SealswithClubs.eu, and the recently shuttered Satoshi Poker (slated to re-open in the near future under new management) see the benefit in using Bitcoin.

Requirements for depositing and cashing out for bitcoin (BTC) sites is similar to playing on traditional online poker sites in the sense that an intermediary eWallet is needed to move money to and from a site. But that's where the comparison ends.

Depending on which non-bitcoin online poker site you use and how much you first deposit, moving money on and off a site can be easy or difficult, but according to the leading Bitcoin poker site, Sealswithclubs.eu, players can make instant deposits, and cash-outs take less than 12 hours.

PokerStars is one of the more popular traditional online poker sites. Many consider the site to also provide the fastest and most reliable transaction times for non-bitcoin poker.

PokerStars requires players to wait a minimum of 48 hours to cash out from their last deposits because of the company's security policy, which is designed to protect players from collusion and fraud. You can only have one pending cash-out — requested, not

By **Michael Friedman, PokerNews.com**

processed — per payment method, whereas a bitcoin site has no limits. The slowest method to cash out on PokerStars is to receive a traditional check, and requires up to 15 days for payout.

the issue of player anonymity

Bitcoin site SealswithClub.eu doesn't personal information, allowing players to play anonymously and without any documentation.

All other poker sites require a player to input certain amounts of personal information to play and deposit or cash out of the site, including their place of birth and citizenship (depending on their jurisdiction).

Micheal Hadjuk, owner and CEO of Infiniti Power, which recently approved usage of Bitcoin, says his company is addressing issues of anonymity like the approaches taken by traditional online sites.

"People will register on Infiniti Poker in the exact same manner as any traditional online poker operator. I am of the mindset that transparency is a very important virtue in the realm of business and customer relations. It is difficult to become accepted in the mainstream when you operate in the shadows," Hadjuk said.

Whether not having to input your personal details or having to is a pro or a con depends on a poker player's personal views. Some like the concept of anonymity (one of the original reasons behind the Bitcoin currency) and being able to not be logged into the registry of a poker site, while others might see it as a potential pitfall and feel more secure on a site like Infiniti that requires their personal data.

anonymity has its risks

Because some Bitcoin sites don't require player details and allow players to play from different ISP addresses, safety measures to deter collusion and give poker players the confidence that they are not being cheated are weak, at best. These sites are not forced to follow stringent rules like those required of Nevada online sites (set by the Nevada Gaming Commission), leaving players little or no means of recourse, because the sites police themselves, as well as the players.

If you are a U.S. poker player not living in Nevada, New Jersey, or Delaware your options for playing online poker are next to none and for those living in those states, they can only play other players within the state's border. The choices left for U.S. players are non-regulated sites like Lock Poker, Bovada, and Carbon Poker.

Technically, bitcoin-driven sites are operating in a "gray area" by serving U.S. customers.

Because bitcoin is not yet regulated as an official currency within the U.S., as long as a player's state doesn't have laws making it illegal of them to participate in a live wagering poker site, then they can play without fear.

PokerNews reached out to several online sites including PokerStars and WSOP.com, but received no response regarding the possibility of these groups incorporating bitcoin to their currency portfolios and no operators would answer these questions.

a lack of regulation can be a bad thing

There is a concerning downside to the "gray area" in which these poker sites operate. Many of these bitcoin sites operate offshore, leaving them unregulated and susceptible to problems that have already faced the online poker industry.

Poker players recall the Black Friday debacle and the problems players still face after Full Tilt Poker failed to keep players' money in segregated bank accounts. Players also are familiar with online sites that failed because payment processors were busted by U.S. authorities, rendering those sites unable to pay back players.

Although Bitcoin sites like SealswithPoker.eu promise that funds are segregated, no regulatory body backs this promise, meaning poker players' bitcoins could potentially be at risk.

According to iGaming lawyer Stuart Hoegner, using bitcoin is not the potential problem; the ethics of the online poker sites are.

While using bitcoins often doesn't require trust (in processors, in central banks, etc.), there can still be counterparty risks, depending on the nature of the transactions. Playing on a bitcoin poker site is no different. The good emerging bitcoin-driven sites will strive to prove conclusively to their customers that their games are fair (e.g., there's a random shuffle). The best sites will also think carefully about the nature of any customer bitcoins that they hold.

For U.S. players, (and potentially players in other countries, as well), there is also a risk that government might try to take action against an online site offering bitcoin, Hoegner said. This opens up an entirely different issue of regulation ranging from the criminality of the practice to the tax matter on the backend.

Naturally, the government wants its share of Bitcoin profits, and is angling legislation to do so.

the tax man cometh

Regulatory efforts could include outright bans and harsher regulatory pressures that force operators to function in the dark. However, it is possible that increased innovation and transparency take hold. Then, as the market place forms, government will be forced to recognize the legitimacy of Bitcoin poker operators much like other forms of technological innovation including Uber, which shattered the regulatory barriers created by years of protections to taxi unions favored by bureaucrats.

Right now, there doesn't appear to be steep opposition to the currency in Washington given the formation of the market. It's also clear that regulators from the U.S., Europe and other nations are looking at regulating both the currency and the online gaming industries.

One of the primary challenges is to understand how they will would tax profits of Bitcoin poker players.

Different countries are beginning to think about bitcoins in terms of taxing profits.

Although bitcoins are not yet taxed in the U.S., the day may come when you will have to report profits from a sale of bitcoins that increased in value. You can also assume that you could also declare a loss if you sold bitcoins for less than you bought them just as is the case with stocks.

However, U.S. bitcoin users will have to take a "wait and see" approach in terms of how this will play out whereas in Germany the government has declared that profits realized from Bitcoin investing are taxable, so it is logical to assume that the U.S. will go this route, as well.

Overall, the intersection between speculation and gaming creates both uncertainty and opportunity in the years to come. As new rules come on line, regulators and operators promote greater transparency, and bitcoin stabilizes and reduces its volatility over time, the currency stands to be a beneficiary in the global poker markets.

TRADING TECHNIQUES

Profiting in summer grain markets: A professional approach

BY MICHAEL GROSS

For futures traders, summer often means grain trading. Don't get burned by the hype. Take a cue from the pros for more consistent profits.

With 2014's brutal winter a distant memory, the height of summertime is finally here. For futures traders, that often means looking for opportunities in the grain markets. For amateurs entering the market for the first time, however, this can often end in less-than-desirable results. To prevent this, you may want to follow the lead of professional traders.

The 2014 corn market presents a perfect setup to illustrate the differences between a professional and amateur approach to taking cash out of the corn, wheat and soybean markets.

Unlike with soybeans, the United States is the world's largest exporter of corn. However, the U.S. share of the export market has shrunk considerably in just the last decade. In 2005, the United States supplied nearly two-thirds of the world's corn exports. By 2015, that share will have fallen to one-third. With the advent of new exporters, such as Argentina, entering the trade arena, global production figures and ending stocks play a more important role in price forecasting for corn than they once did.

It is the heart of summer, however, in the United States. This means there are about 60 days left of growing season. Therefore, the U.S. weather in the Midwest and the state of the developing crop are key issues to focus on when researching corn this time of year.

Trying to trade futures on weather, however, can be a tough racket. Everybody tries to do it. Agricultural market traders love to position for summer weather problems and hope for a flash rally on real or imagined crop problems.

"Buy futures with a tight stop," a broker will recommend.

"Buy the calls with limited risk," an advisory newsletter will propose.

Bet right, get your weather scare and bingo! You have a big win. What a rush! It can and does happen.

There is a name for this whole process—It's called "gambling."

You can do it by betting on weather problems in the ag markets, or you can do it by calling a Las Vegas bookie and taking the Cowboys +6 on Monday night. It's great if you are out for a little fun and excitement, but for a serious investor looking to grow capital consistently—not so much.

For more on Corn go to **futuresmag.com/corn**

The professional way

Amateur traders are often gamblers. They hear or read a story and try to predict what the market is going to do. Then they place a bet that the market will do just that. For them to make money, the market must move the way they predicted—often precisely when they predict it will do so. A short-term hiccup can stop them out. A market that remains flat can see their valuable call options expiring worthless.

The pros are playing a different game. Unlike their amateur counterparts, professional traders are not gambling. Some have automated technical systems for trading; others rely on intensive research. Very few of them, if any of the long-term successful ones, rely on hunches, intuition or a single piece of information.

One thing successful traders of all type have in common: They focus on the big picture. Whether that is markets adhering to a predetermined pattern or a long-term fundamental outlook for a particular commodity—they look beyond the news of the day.

Another similarity: they seem to do everything they can to minimize their emotions. Everything from overall portfolio strategy to individual trading decisions are made analytically, not emotionally.

Perhaps the biggest and most significant shared quality, however, is they try to select only situations that heavily favor them before they risk their own capital. They understand the difference between taking calculated risks and gambling.

Personally, I recall first reading about these persuasions in Jack Schwager's classic book *Market Wizards*. Later I observed it in real life, which led me to study option selling and my subsequent co-authoring of a book explaining the strategy to mainstream investors.

What does all of this have to do with corn? If you are planning on risking capital in the grain markets this summer, everything.

THAT'S A LOT OF CORN

The most recent USDA world agricultural supply and demand estimates show a rosy outlook for this year's corn crop.

Corn	2013/14 (est)	2014/15 proj. (May)	2014/15 proj. (June)
		Millions Acres	
Area Planted	95.4	91.7*	91.7*
Area Harvested	87.7	84.3*	84.3*
		Bushels	
Yield per Harvested Acre	158.8	165.3*	165.3*
		Millions Bushels	
Beginning Stocks	821	1,146	1,146
Production	13,925	13,935	13,935
Imports	35	30	30
Supply, Total	14,781	15,111	15,111
Exports	1,900	1,700	1,700
Use, Total	13,635	13,385	13,385
Ending Stocks	1,146	1,726	1,726
Avg. Farm Price ($/bu) 4/	4.45 – 4.65	3.85 – 4.55	3.85 – 4.55

Source: USDA

Record supply vs. Record demand

The corn market is blessed (or cursed) with both record supply and record demand these days. Rationing following higher prices and a record 2013 harvest sunk corn prices to below $4 per bushel on the cash market earlier this year.

Low prices, however, cure low prices. The $4 price level spurred both domestic and international demand, sparking a solid post-harvest rally in the first four months of 2014.

While old-crop traders will continue to focus on final adjustments to 2013-14 ending stocks, most of the attention now will focus on the 2014-15 crop. To this end, weather plays a sizable role.

At the time of this writing, the U.S. Department of Agriculture is projecting a record U.S. corn crop of 13.935 billion bushels for 2014 (see "That's a lot of corn," right). While on its surface this may appear bearish, the story becomes more interesting as we dig deeper.

The government also projects record global corn demand in 2014. This is a result of increasing demand for both ethanol and global livestock feed to sustain a growing population's increasing meat-based diet.

More important, the record production estimate assumes what would be a record yield of 165.3 bushels per acre. Assuming these figures come to pass, the USDA projects average on farm corn prices between $4.40 and $4.80 per bushel.

Trading the data

Trying to make a futures trade based on this data can be difficult. Everybody knows it. You're not going to get a leg up on anyone by reading the USDA's latest report.

What you can do is stop trying to guess where prices are going to go.

To reach its projection for record yields, the USDA is going to need some good growing weather. The present demand pace will make the 2014 corn crop extremely sensitive to weather. Does that mean there will be a weather event? Nobody knows, but what you can do is position yourself so that you can take advantage of one should it occur.

We saw earlier in the year how strong demand came into the market when corn hit its post-harvest low near $4 on the cash market. December 2014 corn hit a low of just under $4.40 per bushel and recently tested that low setting a double bottom near $4.35 while settling at $4.40 (see "Good levels," page 34). Coincidentally, this is also the low end of the average on farm corn price issued by the USDA for 2014, if expected yields are attained.

Corn can, of course, fall below $4.40 per bushel, but it would likely take perfect growing conditions resulting in even higher yields than the USDA is projecting — or a sudden drop in global demand.

A weather scare, on the other hand, has the potential to send corn prices moderately to substantially higher. As we've seen during the last five years, some kind of weather issue, real or imagined, is not uncommon during the U.S. summer months. With the USDA setting the bar so high on yields, any type of real weather issue, even mild, is likely to result in a reduction of projected yield, and thus crop size. Once growing season is underway, you can't plant anymore. The whole ball game becomes about yields.

The pro trader sees it this way: The most likely scenario is that yields and thus prices stay in the range the USDA projects. Most likely is that a weather scare drives prices above that range, while least likely is that the bottom will drop out of corn prices.

A high-probability play would be to take a position where you profit if corn stays above the $4.40 price level.
The strategy that delivers this is selling puts. A seller of a December $4.40 corn put can profit if corn prices stay in the range of the USDA projects, but this trader also profits in the event of a weather scare. He only loses if corn prices fall substantially — below $4.40.

Corn has been trending downward heading into summer. Weakening corn prices could allow a put seller to sell even lower strikes at the $4.30, $4.20 or even the $4 level (see "good levels"). Corn did

Trading Techniques: Gross continued on page 32 ➤

TRADING TECHNIQUES

Building a trading strategy involves more than testing and optimization

BY KEVIN J. DAVEY

To build a proper trading system that can be expected to make money in the markets, you must start with a plan—and proceed methodically.

It happens to every trader: the sudden serendipitous rush of a brilliant trading idea. Maybe it occurs on the drive home after a long day at work, or possibly an idea suddenly manifests during a morning shower, and sometimes before falling off to sleep. Wherever it takes place, the normal instinct of the trader is to rush to a computer to test the idea, quickly analyze the results, and if the idea seems successful, begin trading it.

SMART trading plan
Monte Carlo Simulation
Walk-forward Testing, Optimization

Unfortunately, that is the absolute worst approach to take. Even though trading software (with simple strategy development and optimization features) cuts the time from creating a trading strategy to seeing the historical results to mere minutes, it does not mean it is the right approach. In fact, a quick test and superficial evaluation is usually the completely wrong way.

To be successful in the long term, the trader must treat strategy creation like building a house. No home builder starts building as soon as he finds a lot and gets some supplies. There are many steps to go through before even starting construction, and the same concept holds true for developing a trading strategy. Creating a plan and building a foundation are two of the first steps a homebuilder, and a trader, must address before testing and analysis.

Blueprint for profit

Ask any builder, and he'll tell you building a house starts with a plan, or blueprint. The blueprint shows what the final product will look like. The same holds true for building a trading strategy; it has to start with a plan, one that shows the end result. Sadly, many people think a plan means "find a trading system that makes a lot of money." That is too general—how much is "a lot of money?" Being specific, not vague, is the key here.

To be successful in creating trading strategies, a trader first needs to have a detailed plan, goal or vision for the expected performance of the strategy. This way, as the trader develops the strategy, there will be clear ways to measure progress. Thus, good strategy development starts with a solid goal. Personal development coaches frequently talk about SMART goals, and that is a good approach to follow. SMART, as shown below, is an acronym to help one remember the important features of an outstanding goal: Specific, Measurable, Achievable, Relevant and Time bound. So what is an example of a SMART goal for developing a trading system?

For more from Kevin, go to **futuresmag.com/Davey**

The "S" in SMART means the goal has to be specific. "Developing a trading system that makes a lot of money" is not at all specific. A trader with a non-specific goal will never know when the goal is reached.

Performance goals when developing a trading strategy should be:

Specific
Measurable
Achievable
Relevant
Time Bound

Instead, a goal like "this trading system needs to average $12,000 net profit per year per contract over at least seven years of walk-forward testing" is certainly specific enough. Being specific, then, achieves two goals: It helps the trader determine when the target is reached, and it helps filter out systems that do not meet the plan, before too much time is wasted on an under performing strategy.

Measurable is the "M" in SMART. Simply put, it means having objective numbers and performance metrics in the plan that the strategy has to meet. It is fairly easy to create a strategy that "minimizes drawdown," but it is far more difficult to create one with a "30% maximum drawdown, measured on a trade close-to-close basis."

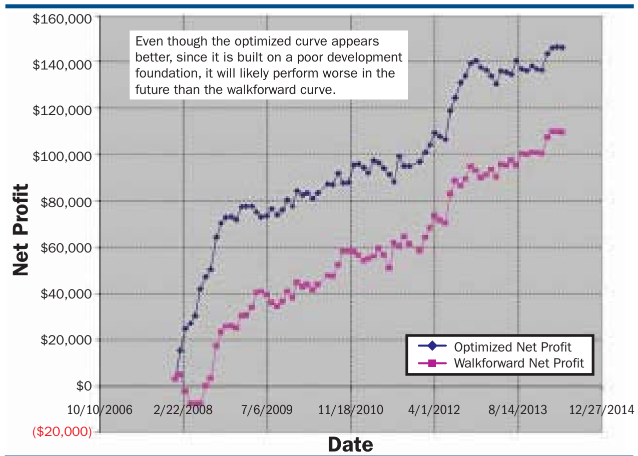
"A" stands for Achievable, and this is where a lot of traders go astray. Developing a trading system that "earns at least 20 points per day per contract in the E-mini S&P 500 futures" is certainly specific and measurable, but it is far from achievable (at least for most traders). Setting an unrealistic goal only leads to frustration, and inevitably causes developers to shortcut the development process. The point is to aim high, but also to aim for something reasonable.

The "R" in SMART stands for Relevant. For trading system design, the trader has to make sure details in the plan help lead to creating a solid system. If a plan includes "no more than three consecutive losing trades," ask "is this criteria truly relevant to developing a trading strategy?" While it may be a nice feature of a trading approach—who would not like a system that never had more than three losses in a row?—it really takes away from the primary focus. Remember that a trading plan has to be relevant to creating a long-term profitable trading strategy, first and foremost. Other, non-critical items can be put on a wish list, but should not be the primary focus during strategy development.

The final letter in SMART, the "T," stands for Time bound. Just as no home builder wants to spend 10 years building a house, no trader wants to spend years developing a trading strategy. So good developers put time limits on strategy creation. This is appropriate for two reasons. First, setting a time limit prevents the developer from continuously tweaking and altering a strategy to improve it. That type of approach almost always leads to over fitting. Second, time limits keep the developer engaged. Instead of focusing on just one strategy, the developer knows dozens of potential strategies are waiting to be evaluated, so the focus is then on evaluating ideas, not perfecting one system.

KEEPING IT REAL

The higher, steeper equity curve may look more impressive, but it is reflective of false promises.



Solid foundation

Once the strategy development plan and goal created using the SMART goal process is complete, it is time to start the detailed work. For the house builder discussed earlier, the plan is his blueprint, and his construction always starts with the foundation. For a trading strategy developer, the foundation can be considered the strategy building process.

Ask any successful home builder and he'll tell you that a sturdy house starts with a solid foundation. A house built on quicksand might look appealing at the beginning, but over time the house will shift and fall apart. The same holds true with trading strategies; without a solid development process, any strategies created will eventually fall apart.

An example of this is shown in "Keeping it real," (above). Two trading strategies are shown and both look acceptable, with strategy number one being vastly superior on paper. Of course, looks can be deceiving, and that is certainly the case here.

Strategy number one was built by optimizing all available data, and by over fitting the rules to the data. In other words, it is underpinned by a weak development process, a weak foundation. Strategy number two, on the other hand, was built with a strong foundation, consisting of limited rules, walk-forward testing and sparse optimization. It is therefore more likely to stand the test of time. So, just seeing an equity curve is not enough—without knowing how it was developed, a trader will never know how realistic the equity curve really is. Knowing what the foundation is made of is critically important.

So, how does a trader create a strong foundation for developing trading systems? First, he has to eliminate all bias by testing every strategy using the same process. Pet ideas have to go through the same development process as all the other ideas. This way, all strategies are subjected to the same tests and analysis. The best ideas will naturally rise to the top, without bias. Second, the process has to employ objective performance criteria, and be consistently used by the developer.

Proven process

One proven trading development process is shown in "Step-by-step," (page 32), and consists of the following steps:

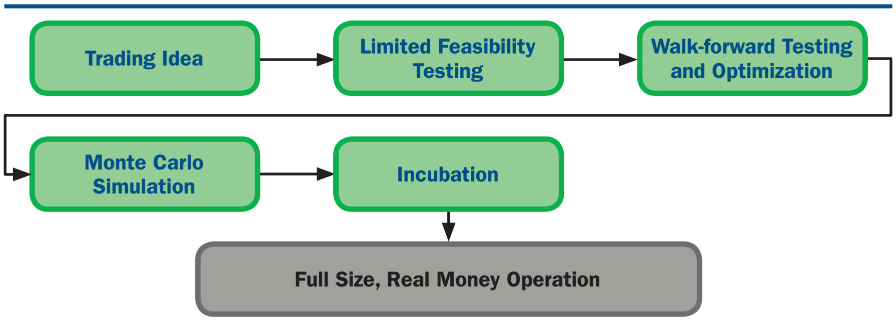
Trading Idea: A good trader is continuously on the lookout for new ideas to test and new concepts to analyze. Data mining and brainstorming are two good sources of new ideas.

Limited Feasibility Testing: Most new traders apply a proposed strategy to all the historical data, typically with excessive optimization. A better way is to test the strategy on a small amount of data. If strategy performance with a small sample is poor, chances are it won't be good on a larger piece.

In-Depth Walk-forward Testing, Optimization: Walk-forward testing uses

STEP-BY-STEP

Trading system developers should follow a methodical process for each idea they want to trade.



both optimization and out of sample testing, combined in a way that leads to better real-time performance. This approach is superior to traditional optimization, or testing with a single small out-of-sample period.

Monte Carlo Simulation: History never repeats itself, so it is important to run random number simulations of expected strategy performance. By doing so, a trader can understand the probabilities of achieving a certain rate of return, or of having to endure a certain drawdown.

Incubation/Initial Testing: After development is complete it is best to let a strategy sit for a while before dedicating capital for trading. Monitoring a strategy in real time, but without actually trading, can save a trader thousands of dollars over the long haul because development mistakes frequently reveal themselves in this step.

Full Implementation: Once everything is in place, full size, real money trading can commence. This stage will also include rules for increasing position size should trading go well, and reducing position size when the strategy has poor performance.

The process above can vary from trader to trader. The important point is that the process exists and is written down. This prevents a trader from bypassing their steps for certain favored strategies.

Developing strategy performance goals and a strategy development process are easy concepts to understand. The trick, however, is for the trader to be methodical and rigid in the approach while employing these concepts. Traders who take shortcuts, or who cheat their way through the process, will almost never succeed. Like a house built on sand, a trading strategy developed incorrectly will quickly crumble and fail as the real world unmercifully attacks it. On the other hand, a solid trading strategy, built the proper way, stands a much greater chance of surviving the ravages of the markets. F

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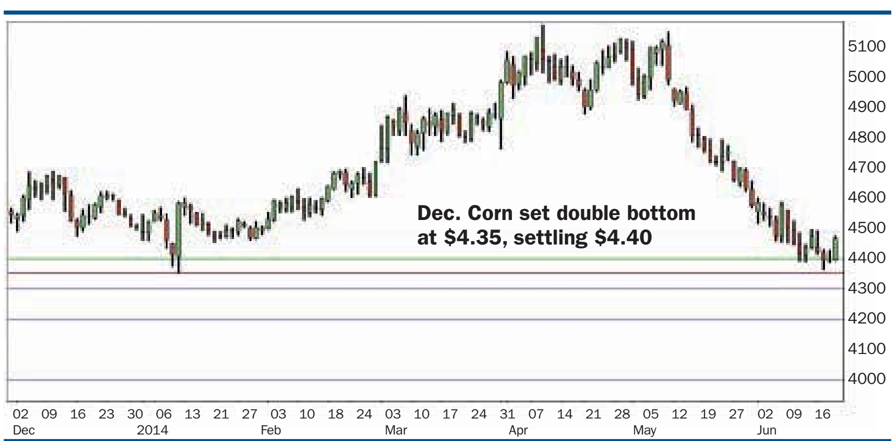
Gross continued from page 28 ►

GOOD LEVELS

December 2014 corn has been falling this spring. However, the USDA expects record demand to keep prices above $4.40. Further, in June Dec corn hit a double bottom just below the $4.40 level ($4.40 closing level) and rebounded showing strong support.



Source: eSignal

hit a double bottom just below $4.40 in June before a strong rebound, which should strengthen support at the $4.40 level. If prices are anywhere above the selected strike price at expiration, the option expires worthless. You keep the premium as your profit.

When you sell puts, the market can do many different things and you can still make money, but only one thing can happen to cause you to lose money.

This is what is meant by selecting only a situation that heavily favors you before risking capital. If you elect to sell a put in this manner, you are not betting on a weather scare. You are only looking to profit if what is expected to happen, happens. However, should a weather scare occur, all the better.

Selling options entails open-ended risk that must be managed correctly. However, it is a professional-grade strategy that can be used by individual traders. If you are looking to get your feet wet with option selling, writing puts in corn this summer could be a great place to start but it would be wise to limit exposure by covering the position. F

Michael Gross is co-author of McGraw-Hill's *The Complete Guide to Option Selling*. Reach him at OptionSellingConsult@aol.com.

TRADING TECHNIQUES

Nasdaq 100 smiles during market frowns

BY HOWARD SIMONS

Volatility wagers have always been a more complicated ordeal than an outright bet on price. Recently, a number of volatility-based products have simplified this process.

Every now and then you just have to accept you do not understand something. In your correspondent's case, trading a volatility index or a derivative thereof when you are motivated by a price opinion falls into that category. If you think the market is going to go down, there are plenty of price-based futures, options and exchange-traded funds capable of executing your opinion precisely and with a well-behaved and liquid instrument. Going long volatility instead recalls a long-ago comment made about self-impressed slugger Reggie Jackson: "There isn't enough mustard in the whole world to cover that hot dog."

- Volatility index variety
- Shifts in market tenor
- VIX vs. VXN

Some volatility-based products are very successful trading instruments indeed, and volatility patterns are useful in market analysis, particularly in sniffing out relative anxieties between buyers and sellers. The CBOE Volatility Index (VIX) can be discussed in terms of time-adjusted retracement of gain and proximity to last new low price in the market, both of which reflect traders' psychological regrets over loss and fear of further losses (see "Balancing fear and greed," September 2003).

Nasdaq 100 volatility

If the S&P 500-based VIX is not hot enough for you, or if you find the trading-hour misalignment between the Stoxx 600-based VSTOXX and the VIX challenging, then consider the Nasdaq 100-based NDX volatility index, or VXN. The differences between the S&P 500 (SPX) and the Nasdaq 100 (NDX) in terms of both historic and implied volatility are obvious to anyone who has traded them, and the sector composition of the two indexes creates a potential for rapidly moving spreads.

Rather than focus on these differences or even on the different responses of the VXN to the NDX when compared to the VIX-SPX relationship, let's focus instead on some signals generated by the VXN.

First, let's map the VXN-NDX relationship over the post-February 2001 history of the VXN not as a function of time but rather of price. Each vertical line in "VXN Shock & Regress" (right) represents a day's high-low range in the VXN, mapped on a logarithmic scale, against the day's closing NDX level.

For more from Howard, go to futuresmag.com/Simons

Two cubic trend curves through the VXN highs and lows are superimposed.

Two dates are marked: The March 5, 2014 post-dotcom bubble high in the NDX and the April 7, 2014 reaction low associated with a selloff in the technology and biotechnology sectors. The 5.89% pullback in the NDX looks very small indeed. The 4.83-point increase in the VXN over the same period is in line with previous experience.

Excess volatility

Statements of the VXN or any other volatility measure being "too high" or "too low" are meaningless unless placed in context against a market environment such as realized volatility or the aforementioned time-adjusted retracement of gain or proximity to a last new low.

Let's normalize the VXN to high-low-close volatility, a measure that incorporates intraday range as well as interday change. If we map this ratio minus 1.00 against the NDX itself, we see a pattern likely different from what you might expect (see "Excess volatility," right). The two largest increases in excess volatility came during bull phases for the NDX, the first quarter quantitative easing induced rally in 2009 and the postponed-tapering rally of late 2013. High-low-close volatility fell during those rallies as the market formed tight uptrend channels.

Conversely, excess volatility turned negative during phases such as the Bear Stearns and Lehman Brothers collapses in 2008, and during the May 2010 flash crash and Eurozone sovereign credit kerfuffle. The March 5 and April 7, 2014 dates are marked; please note how excess volatility was very normal on both days and how it actually declined as the NDX retreated.

NDX smile

The volatility smile of an index is not the same as one for an individual stock for a very good reason: a stock is exposed to a real risk of ruin, or going to zero, while it would take a literal end-of-world experience for an index to go to zero.

When a stock is threatened with risk of ruin, we should expect volatility at the higher moneyness strikes to increase relative to both the at-the-money strike and to the lower-moneyness strikes. Moneyness is expressed as a percentage of the current price. The same mechanism operates in the case of an index, but in a muted fashion.

If we map one-month implied volatilities on a series of down-days for the NDX since its March 5, 2014 high, we see a succession of higher volatilities in the higher-moneyness strikes (see "Nasdaq 100 volatility," page 36).

However, this pattern is not perfectly mechanical; please note the high volatilities for the lower-moneyness strikes on April 25, 2014. This down day for the NDX came after a fairly strong rally and not after a succession of weak days. A reasonable explanation would be a number of traders had written out-of-the-money put options on the way up and were scrambling to cover them as the market declined. This urge to write out-of-the-money put options after decades of experience, demonstrating it is a good way to lose a large sum of money over a short period of time, is another one of life's mysteries.

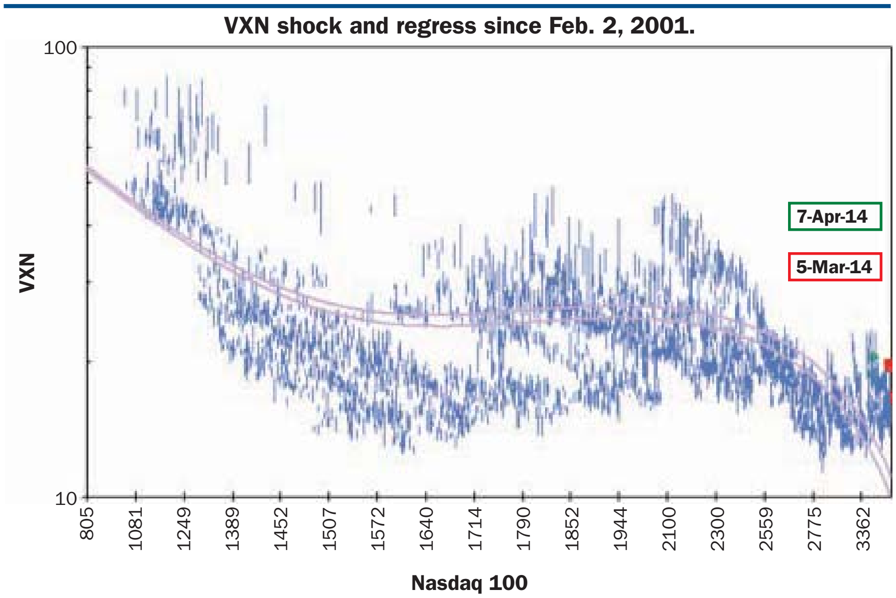
If we normalize the volatility data in the chart above to the at-the-money volatility, we can see a succession of smiles or distribution of volatility across strikes. With the exception of the April 25 date discussed above, each smile is unusually flat and is tilted far more toward the higher-moneyness strikes than what we would expect to see on an up day in the market.

Credit default swaps

Credit default swap (CDS) costs tend to rise when a firm's equity option volatility rises. This is one of those odd little correlation trades that should not exist as much as it does, but CDS writers often hedge their positions with the liquid stock as opposed to the relatively illiquid corporate bonds.

VXN SHOCK & REGRESS

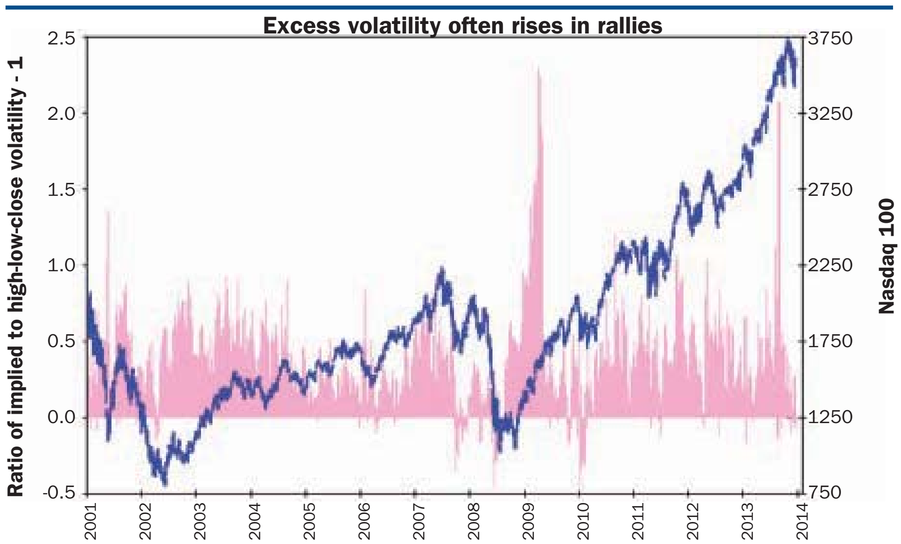
The VXN follows a discernible pattern when plotted vs. the Nasdaq 100.



Source: Bloomberg

EXCESS VOLATILITY

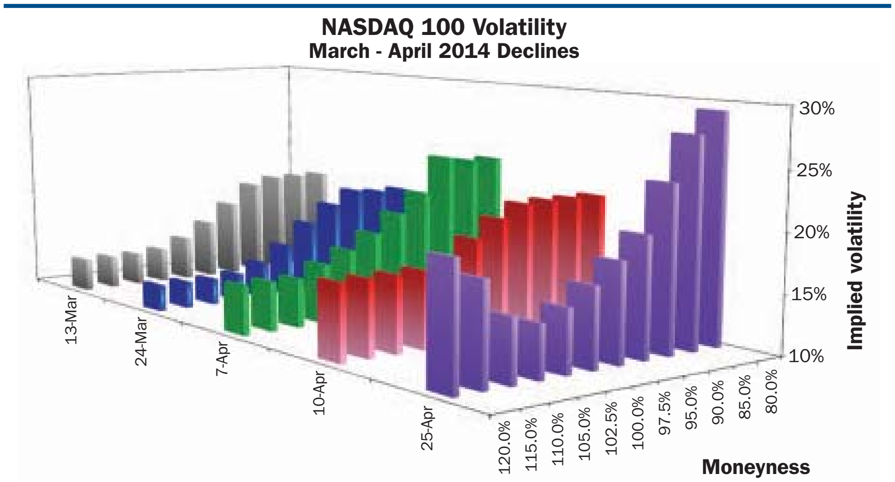
Excess volatility not only rises in rallies, but it often doesn't behave as you might expect during unexpected market declines.

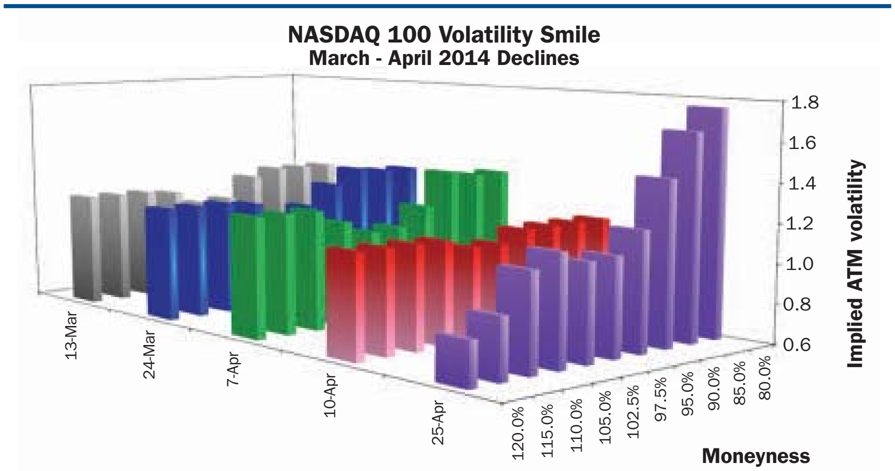


Source: Bloomberg

NASDAQ 100 VOLATILITY

Typically, during down days, we see higher implied volatilities at higher strikes, expressed as a percentage of the current price. There are anomalies, however, such as during April 25, 2014 (first chart). If we normalize that data with respect to at-the-money volatility, a slightly different picture emerges (second chart).

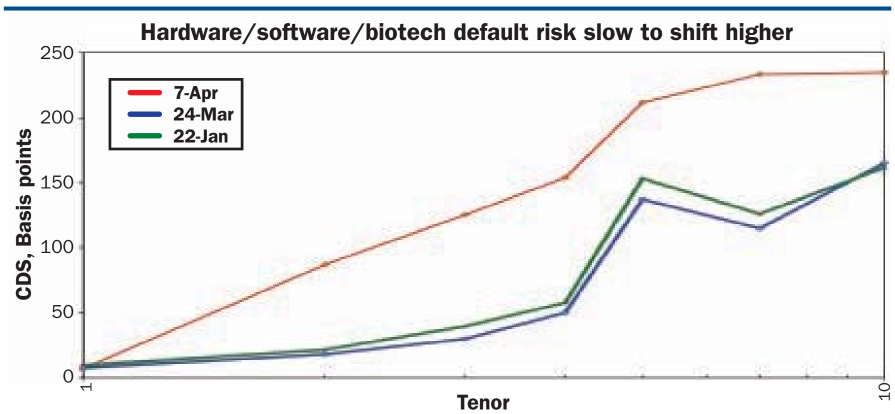




Source: Bloomberg

DEFAULT RISK SLOW TO SHIFT

In this example, traders' perception of default risk was slow to react to the downturn in the Nasdaq.



Source: Bloomberg

Never mind the "default" part of the name; while equity option buyers have an array of put strikes between the current stock price and zero, none of them implying financial default, a CDS pays off when the firm cannot meet its bond payments or is downgraded. Think of equity options as frequently used health insurance and CDS as life insurance; you will never be the beneficiary of your own life insurance policy, and it comes into play only once.

CDS writers include participants in the synthetic corporate bond market. A bond buyer can create a synthetic corporate bond by buying a Treasury and writing both a swap spread and a CDS. As individual corporate bonds tend to be illiquid after issue, these synthetic bonds are a good way for investors to make their own liquidity. This mechanism also keeps CDS costs in line.

For the sake of completeness, swaptions on CDS do exist for those who want to benefit from an increase in a firm's default risk without having to wait for an actual default. Fortunately, these instruments are very fancy and very illiquid and those are never in the room whenever a financial crisis hits, right?

If we construct an average of CDS costs across the computer hardware, computer software and biotechnology sectors across a range of tenors and compare how they moved from a bullish date in late January to the April 7, 2014 selloff date, we see the CDS costs were slow to react. Traders simply did not take the early downturn in the NDX seriously in terms of corporate health at first.

At the end of it all, the smile of the NDX options can tell you as much—if not more—about how seriously the market takes any given downturn. If excess volatility remains low, if the smile shifts to the higher-moneyness strikes and if the CDS costs of various key market components increases, chances are you are looking at a real problem and not a one-day wonder. F

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SPECIAL 500TH ISSUE

Looking forward to the next revolution

BY DANIEL P. COLLINS

Asia, water, bid data, intellectual property and commodities that have not been invented yet will like be the leading markets in the next 20 years, according to Richard Sandor, who has a pretty good track record on these things.

For many in the Futures industry the opportunity (or threat) brought by computers in trading was not really seriously contemplated until 1987 when the Chicago Mercantile Exchange launched the concept of creating an after-hours electronic trading venue. CME Group Chairman Emeritus Leo Melamed—who a decade earlier wrote an article for Hofstra University stating that open outcry was the only way for a futures market to operate—called electronic trading "the camel's nose under the tent."

Melamed eventually acknowledged his mistake.

Inventing markets

Water futures

Of course, computers had already played a big part in the futures arena as the revolution of the personal computer at the beginning of the 1980s allowed for the proliferation of technical trading systems. However, for the average industry insider computers where not a big part of the industry then, let alone in 1972.

Futures magazine has always thrived to be a resource for traders. That is why it was founded. Nowhere is that more clear than in the very first issue of *Commodities* magazine when Richard Sandor and Lance L. Hoffman wrote the article, "Computers and Commodity Trading."

The focus of the article was on the use of computers in designing trading strategies and even included a trading model. The article, which included a description of a trading strategy that produced a 73% return over a 10-year period, concluded, "The ultimate value of the computer depends on the ability of those individuals who are supplying it with information and programming the models tested. But the capability to describe in a quantitative fashion the relationship with a variable and then combine this with a trading strategy and then test this strategy for a 10-year period—all in a matter of a few seconds—certainly holds the promise of a great future in futures for computers."

This was certainly an understatement and was so prescient that we decided to go back to Doc Sandor—the inventor of the first interest rate futures contract and environmental markets — to get an idea of what he sees for the industry in the next 40 years.

"This revolution will continue," Sandor says. "We have access to big data, we have big changes coming around. The ability to extract information from big data has the potential for being very significant in electronic trading. The amount of computing power, the cloud, big data—we are at a whole new level of information that can be aligned with computers."

For more on Sandor go to futuresmag.com/Sandor500

While a professor at UC Berkeley in the 1960s, Sandor began working on computers when they were in their infancy.

"The next 20 years will be very rich because of advancements in behavioral economics, finance and big data," Sandor says. "The future will be very robust for those who manage to get a lead in using those tools to analyze and predict markets."

While technology will play a major role, Sandor says the growth in the industry is going to be driven by new geographies.

"You now have access, vis-à-vis the computer, to not only established markets in Asia but to new market-making out of that continent. The computer has now made it possible for a trader in Mumbai or Shang Hai to develop forecasting models that they never would have thought about without the web and cloud computing," Sandor says.

Back to bonds and regs

He is helping regulators and central bank's in China and India develop bonds contracts and is putting in place the

PHOTO: COURTESY OF RICHARD L. SANDOR

proper regulatory structure, which he has said was key in the development of U.S. financial futures decades ago.

"The thing that is most important when you launch these new markets is the need to educate," he says. "Academics, students, lawyers, accountants, regulators. Unless all of those constituencies are properly educated these markets will face risk. The biggest risk is that people begin markets and they're not informed of what is required for success."

As for U.S. markets, he says the important thing is for effective international regulation and coordination. "We are doing it with Europe, but are not doing it with Asia in any great degree."

He cautions that what needed is effective regulation, but not necessarily more regulation. "The danger is that there will be less than intelligent regulation as a backlash to some event that might occur. The important thing is for regulators to be fully appraised and be in dialogue with those that are being regulated— and that they understand the technology and not be reactive. Reaction will generally swing the pendulum too far."

That may be the case with the implementation of Dodd-Frank. "There is inflation in legislation," Sandor says. "Dodd-Frank is longer than the New Testament, Old Testament and Koran combined. That in itself is opaque and difficult to deal with. I would have wished for simpler legislation. The bill that created the Commodity Futures Trading Commission was 155 pages. Dodd-Frank ,with the amendments, is 2,300 pages. There were no problems with Futures markets with a 155-page enabling act. I don't get why you need 15-times the number of words. Nobody reads it and nobody understands it. I want legislation to be simpler and more transparent," he says.

Carbon trading

Sandor's most recent innovation is related to carbon trading—he founded the Climate Exchange PLC (CLE) family of companies before eventually selling to the Intercontinental Exchange. It was a commercial success for him personally, but not a success in the United States in terms of creating a vibrant market for carbon emissions.

Sandor is still convinced the cap and

trade methodology is the best way to handle pollution.

"China has seven pilot programs for trading emissions, and India just started a renewable energy program, which has gotten off to a fantastic start this year," Sandor says. "You are going to see growth in both the capital markets and in environmental markets in China and India."

As for as the United States, he says regional environmental markets will take the lead. "The leaders in these markets will be California and China. California, for good or bad, is the source for more inventive activity and disruptive technology and behaviors," he says. "Bear in mind that California is the eight biggest economy in the world and we have a very successful cap and trade program going on there. You cannot look to Washington, you've got to look at the states."

He points out that both California and The Regional Greenhouse Gas Initiative (RGGI), a market based regulatory greenhouse gas initiative that includes nine Eastern and Mid-Atlantic states, are leading the way in the use of markets to solve social and environmental problems.

Sandor says that has always been the way of innovation—markets are developed regionally and then grow. "You will find one to two years from now the revolution in California at the state level coupled with the Asian governments is really going to be the defining characteristic of our time when we look at it in 2030," he says. "The people who focus on a Federal solution in the United States are missing the point — innovation is occurring at the state and local levels and the federal government will imitate the success of the state and locals and not be the driver of policy. It is a mistake to look at Washington's progress and see it as indicative of U.S. progress."

Great recession

On the great recession he says it is unclear whether Dodd-Frank rules will work. "We learned one important thing: No exchanges failed, no counterparty risk; 78 exchanges in 35 countries no risk whatsoever from counterparties," he says. "The question is how effectively government can take the model that has been developed by the futures industry and seamlessly and cost effectively implement it. The danger is if regulation and cost imposed will prevent or limit new entrants into the market and favor the big players over small players and new players."

This is important as the growth of financial futures is proof that the leaders in finance at the time were not the ones with the innovative ideas for the future.

New markets

What Sandor has done over the years is show an ability to understand risk and forecast what risks we will face in the future, and then invent markets to handle that risk. As for the next 20 years he says water is going to be one of the big ones. "In the next decade you will see the recognition that water is the most important commodity in the world and markets are best suited for solving scarcity and quality of water issues."

Sandor serves on the board for the Center for Financial stability, which is holding a conference in same location as Bretton Woods. "Bretton Woods created a new environment and the collapse of it created a new environment. We will look at what is needed in the next 20 years," Sandor says.

When *Futures* published its initial issue in February 1972 it was apparent to Sandor that computers were the issue. He says, "What is apparent now is Asia, water [and] the development of markets in commodities that haven't been invented yet, [like] intellectual property. It took 20 years after the invention of the personal computer to get to the web. If I look out now like I did in 1972 I would be looking at big data, computers, water and Asia. Those are the sound bites of the 21st century. F

SPECIAL 500TH ISSUE

The time was right

BY DANIEL P. COLLINS

Commodities/Futures Magazine launched at the precipice of a revolution in the futures industry—really a revolution in the idea of risk management—that would move it from a small niche industry to an indispensable tool for managing risk as well providing an alternative investment to traditional stock and bond portfolios.

A recurring theme when looking back at the launch of *Commodities* magazine was good timing. The initial issue included letters from industry leaders extolling the need for a voice of the industry. Think about this—by the time we published our February 1982, 10th anniversary issue, the industry went from simply trading grain and livestock markets to the development of a myriad of new sectors including financial futures. Gold was illegal to own in the United States when *Commodities* launched, let alone to trade. Energy markets developed, equity options were being developed, the Commodity Futures Trading Commission (CFTC) was created, and futures on currencies, interest rates and stock indexes were introduced or announced.

21st century Futures
CME vs. ICE

The country survived the Vietnam era and was beginning to see the end of the road in its long battle with inflation. A lot had gone on in that 10-year period.

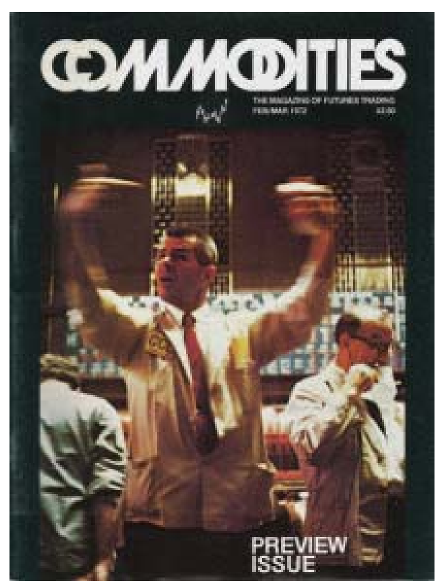
I recall talking to Leo Melamed for our 35-year anniversary *Agents of Change* issue about powerful interests not taking his idea seriously. It was probably a break for Chicago's Futures industry as those powerful interest could have buried Melamed's baby, the International Monetary Market (IMM) at the time if they realized how big of an idea it was. Melamed quipped, "When they did recognize the potential and made a challenge, it was maybe a decade later and a decade too late."

It was in the same *Agents of Change* issue where Richard Sandor pointed out that the Securities Exchange Commission (SEC) had attempted to stop Ginnie Mae futures trading before it launched at the Chicago Board of Trade (CBOT) in 1975, claiming it had regulatory jurisdiction. But that was the exclusive domain of the CFTC thanks to the work of Philip McBride Johnson, who as outside counsel for the CBOT worked on ensuring the CFTC would have exclusive jurisdiction of all futures contracts.

The term commodity was already becoming somewhat of a misnomer but it was Johnson's adroit legal work that allowed for such things as interest rate and stock index futures to be defined as commodities. Johnson, another of our Agents of Change, pointed out that without CFTC exclusive jurisdiction, these new markets would have been buried in an alphabet soup of government agencies fighting to regulate them. "A multitude of authorities jostling with each other for supremacy, disagreeing on policies, making conflicting demands on the futures community. The futures markets could suffocate in that environment," Johnson said.

An explosion of innovation had begun, all within a half mile or so radius in

For in depth on stories mentioned go to **futuresmag.com/DC500**



FIRST ISSUE OF COMMODITIES

downtown Chicago. And *Commodities* was there to cover it all from the launch of the IMM, to the creation of Chicago Board Options Exchange, to the creation of interest rate futures, to cash settlement and finally stock index futures. It is hard to imagine another period with such dynamic change.

In our 10-year anniversary issue, commodities lawyer Charles M. Seeger wrote a compelling opinion piece arguing against the Federal Reserve Board's attempt to impose margin requirements on the soon to be launched stock index futures. He argued that the Fed lacked such authority and that it was a bad idea even if they had such authority. It was clear that Chicago was ruffling feathers. Seeger concluded in an argument that could be used today, "Margin authority should continue to reside with the exchanges that possess the necessary expertise and flexibility — and not with a federal agency whose lack of knowledge and institutional inertia likely would negate the valuable hedging and price discovery benefits of stock index futures."

This may have helped prompt the Shad-Johnson Accord named for the chairmen of the SEC and CFTC. Basically, it cleared the last obstacle to stock index futures trading. The CFTC would maintain exclusive jurisdiction of the new stock index futures but futures on individual stocks and narrow based stock indexes would be banned.

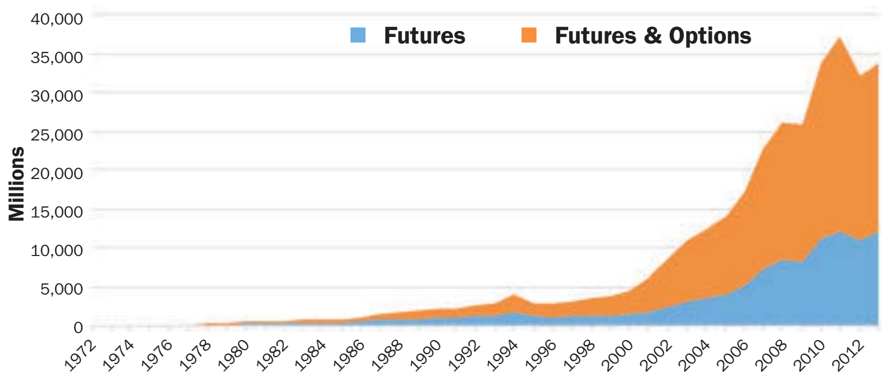
Five years later in our 15-year anniversary publisher Merrill Oster wrote, "The last 15 years have been a blur in this business. Unlike many industries cramped by economics and obsolescence, the futures industry has sped pell-mell ahead, like a toddler trying to run faster than his little feet will carry him."

In the interim the name of the magazine was changed to *Futures* (September 1983), solidifying the innovation that occurred in that period. Futures and options were no longer innovative concepts in the minds of ambitious Chicago traders but becoming vital tools for finance. Oster pointed out that professional money managers had begun to use these tools as integral parts of their trading strategies.

Appropriately featured in this issue was Richard Dennis, whose trading and

500 MONTHS OF GROWTH (FUTURES)

Futures and options volume have shown remarkably consistent growth since 1972.



Source: Futures Industry Association

legend grew apace with the growth of the industry and the magazine. Also in this period *Futures* had begun to profile traders on its back page. Many of the most successful traders in the industry have been profiled in *Futures*, many well before they became legends.

The trend to report on the professional managed money industry continued to grow. By our 20th anniversary managed money has its own section in the magazine written by editor and future publisher Ginger Szala. *Futures* would track and become the go to source for information on the world of public commodity pools.

We noted in that issue that the previous five years had been the era of globalization as more than a dozen futures and option exchanges were launched. We also looked forward to the launch of electronic trading through Globex, which had been announced but was not operational. We asked, "Will the next five years be the era of automated trading?"

By "automated," we meant "electronic" and by the time our 25th anniversary came around the cover simply was "Speed."

True to our history we were ahead of the game as "speed" was being measured in seconds (not micro- or milliseconds yet) at the time and trading was still being done on the floor, except for after-hours. It was clear what direction the industry was heading in and *Futures* was pointing the way.

Just as *Futures* decided to cover the managed money world more closely several years earlier, it had begun running a regular feature on Trading and Technology written by Murray Ruggiero. Murray has now been writing this feature for 20 years (see "Murray Ruggiero: Mastering technology," page 44).

This was also an era that saw the growth overseas — markets that would grow and push electronic innovation challenging established markets the same way Chicago markets challenged the status quo a quarter century earlier.

By our 30-year anniversary the transition to electronic trading was nearly complete and the next major change for the industry would be demutualization, common clearing, and consolidation and commission compression.

Former *Futures* Editor-in-Chief Darrell Jobman does a great job in describing the major events during his tenure (see "10 events that molded trading in the 20th Century," page 16). Progress continued and even accelerated in the 21st century.

CFMA of 2000

The Commodity Futures Modernization Act of 2000 (CFMA) was welcome legislation for the futures industry, recognizing its growth, value and maturity over the previous several decades. Regulations would be principle based allowing for more flexibility in rolling out new contracts and overseas contracts would be more accessible. The big prize was the repeal of the Shad-Johnson Accord as the London International Financial Futures and Options Exchange (Liffe) had plans to launch single stock futures—including those on U.S. companies—and Congress realized it had to act to prevent losing a

Special 500th Issue continued on page 43 ►

A historical flash back

BY LEO MELAMED

In 1990, Nobel Laureate in Economics Merton Miller in assessing the financial landscape of that day called financial futures "the most significant innovation of the past two decades." He was right . Not only did this event initiate the transformation of futures from their traditional usage in agriculture, it vaulted futures markets to their present position in finance as one of the most efficient risk-management tools. They are indispensable to the mechanics of efficient capital markets.

Few would argue that the modern era of futures markets began with the birth of financial futures at the International Monetary Market (IMM) of the Chicago Mercantile Exchange (CME) and its launch of currency futures on May 16, 1972 (a few months after the first issue of *Futures* hit newsstands). Those were seminal moments. Until then, we were trapped in our agricultural cradle and constricted by the limitations of physical delivery. Once those constraints were removed, futures markets soared. This first-mover advantage coupled with "cash settlement" and our subsequent introduction of Globex provided the momentum which ultimately brought the CME Group to today's pinnacle of futures markets.

LEO MELAMED WITH MILTON FRIEDMAN

Leo has recounted in *Futures* on several occasions how it was the influence of Friedman, who wrote a paper for CME on the need for currency futures, that provided the authentication and gravitas Melamed's idea needed to move forward.

According to the Bank of International Settlements (BIS), 81.3% of all futures traded in 2013 were financial futures and options. The notional value of those traded equaled an astounding $1,886,283.4 billion. The success of these instruments of finance resulted from a combination of factors. First was the ending of U.S. dollar convertibility to gold on Aug. 15, 1971 by President Nixon. By closing the gold window, President Nixon's action led to an irreversible breakdown of the system of fixed exchange rates, initiated the era of globalization and provided the rationale for the CME, and later other futures exchanges, to prove that the traditional idea about use of futures markets in physical commodities was also applicable to instruments of finance and beyond. Tangentially, it is important to note that while it took a great deal of time for world recognition of our market's capabilities, the Chicago community and its banks were immediately supportive. Of particular importance were the local floor-traders themselves who had the trust and courage to believe in these new markets. Of course, we needed avenues for publicizing the values we represented. In this respect, my hat is off to the publishers and reporters at the first influential magazine originally called *Commodities* and later renamed *Futures*, which recognized the metamorphoses that was occurring.

For more interviews with Melamed go to **futuresmag.com/melamed500**

With the advent of computer technology in the early 1980's, business risks that exist in the marketplace could be unbundled and transferred to those most willing to assume and manage each risk component. Consequently, financial derivatives soon evolved into a growing array of exchange-traded and over-the-counter (OTC) financial instruments with more sophisticated applications. The economic function of these instruments was to provide a safety-net based on benchmark groupings of inherent business exposures or to unbundle the risks involved into their basic components and transfer them to those most able and willing to assume and manage each component.

Consequently, financial derivatives—both on centralized futures and options exchanges or customized in the OTC market—can be likened to a gigantic insurance company that allows financial market risks to be adjusted quickly, more precisely and at lower cost than is possible with any other financial procedure: a process that has improved national productively growth and standards of living. However, with the financial meltdown of 2008 behind us, we know that without proper safeguards OTC derivatives can be misapplied and create risks that result in unintended consequences. The primary purpose of Dodd Frank legislation is to correct this problem to protect end-users. It is imperative to note, however, that futures markets operated flawlessly during the crisis. Our industry experienced no failures and did not apply for nor need government assistance. Point in fact, the new regulatory structure embraces the futures markets "mark-to-market" discipline.

Today our markets provide risk management capabilities on a nearly round-the-clock basis on a vast array of products that cover the gamut from finance to energy, from securities to the environment, from banking to agriculture. Today the trading "pit" has been electronically transported to every corner of the globe. Whereas as little as 10 years ago American futures exchanges were still predominately limited to floor-based execution. Now the trading screen enables everyone everywhere to execute trades without the need for physical representation on the floor of an exchange.

Thus, the future of futures markets is limited only by our own imagination. Congratulations to *Futures* on its 500th issue.

Leo Melamed is chairman emeritus at CME Group and chairman and CEO of consulting firm Melamed & Associates, Inc. He is a former chairman of CME who established the International Monetary Market (IMM) and was the primary driver in the creation of Globex.

PHOTO: COURTESY OF LEO MELAMED

Special 500th Issue continued from page 41 ►

potential huge market.

Competition in futures had always meant innovation: finding the next big market, as once a futures contract became established it was "game over." With very few exceptions there was little direct competition among exchanges. The world had just seen the exception as Liffe, slow to move into electronic trading, saw its largest contract, the 10-year German Bund Futures, escape to Frankfurt and Eurex.

Common clearing link

The CFMA meant different things to different groups and to the Futures Industry Association, and the large bank FCMs that had come to dominate its leadership it meant the potential of delinking clearing from exchanges. In Chicago, the Board of Trade Clearing Corporation (BOTCC), which cleared all CBOT trades, was owned by clearing member firms. CME on the other hand owned its own clearinghouse. This was a bone of contention for large clearing member firms who wanted more control over the cost of clearing. The FCM community also had for years pushed for cross margining at the two major clearinghouses, — or better yet a merger. This blew up at a CFTC forum the summer of 2002, where the FIA argued language in the CFMA allowed FCMs to take their clearing business to the clearinghouse of their choice and perhaps provided a mandate to make futures contracts fungible.

This led arguably to the low point in FCM/exchange relations. The coming demutualization of exchanges had brokers worried that an exchange with its own clearinghouse would create a powerful monopoly. They would not stand for it. Many of the largest brokers would back a string on potential competitors, mainly to the CBOT bond complex. None have been successful in gaining significant market share but the idea was to keep pricing pressure on the soon-to-be for-profit exchanges. The CFTC did not accept the FIA's argument and did not argue in favor of brokers moving margin to a clearer of their choice.

In a tactical coup the CME and CBOT announced the common clearing link in April 2003. It had delivered to the FCM world what they had been clamoring for but not quite in the way they envisioned it. FCMs would get the clearing efficiencies and margin offsets they had called for but would lose the control they desperately wanted.

Around the same time, the CBOT had been looking for a new technology partner. Its existing deal with Eurex was troubled and had to be reworked as the two exchanges disagreed as to what each side was to deliver. CBOT had to decide to stay with Eurex or choose Lifffe's new electronic platform. Complicating matters was the knowledge that CBOT's clearinghouse (BOTCC) had been separately negotiating with Eurex and that Eurex would likely launch competing interest rates contracts if CBOT chose Liffe.

CBOT went with Liffe and was allowed to seamlessly move its open interest to the CME clearinghouse.

Game, set and match.

Icing the CME

For three quarters of the 43 years of *Futures* the industry had been having its annual conference in Boca Raton, Fla. Industry firms like to make splashy announcements with the pool of media that usually attends but more often than not the news is contrived. That was not the case in 2007 when the Intercontinental Exchange (ICE) slipped a counter offer to the CME's definitive merger agreement with the CBOT under the hotel room door of CBOT Chairman Charley Carey.

This was as hectic and exciting a story to cover in my time at *Futures*. In the days following the announcement all sides were scurrying. Terry Duffy held a meeting in front of CBOT members a few weeks later that ended in controversy with Duffy refusing to answer any additional questions. His contention was that CME's currency (stock) was more valuable than that of ICE and there was no need for CME to raise its bid.

This opened up a public relations opportunity for ICE and its innovative chairman Jeff Sprecher. Weeks later he would hold a meeting for CBOT members and vowed to stay until the last question was answered; which he did. He also rolled out a surprise agreement with CBOE that sought to solve the contentious exercise rights issue between the CBOT members and CBOE. By the end of the evening he made many converts.

FIRST ISSUE OF FUTURES

There was a lot of back and forth that spring and summer as ICE upped their bid and their stock price increased adding distance between the two offers.

ICE would even wrestle away listing rights to the valuable Russell 2000 Index from the CME in the process. If the ICE bid seemed like a flight of fancy and longshot when it was announced, as the hour of reckoning came down it was clearly credible and serious.

Ironically, at the time the CBOT leadership viewed the New York Stock Exchange as the one serious competitor to CME for its affection. The CME prevailed as it raised its bid to match ICE on the eve of a membership vote and with the CBOT's largest shareholder threatening to side with ICE if CME didn't. Less than seven years later ICE (founded in the 21st century) would buy NYSE Euronext.

CME may have known all along it would have to raise its bid and simply waited for the last best moment to give ICE no room to counter, but it was like an exciting high-stakes game of poker.

The battle for CBOT proved ICE was a serious player in the exchange space and added $3 billion to the collective bottom line of CBOT members. To this day, CBOT members openly thank Sprecher .

CME would consolidate its power a few years later with the purchase of Nymex and upstart ICE would end up owning the NYSE. F

TECHNOLOGY & TRADING

Murray Ruggiero: Mastering technology

INTERVIEWED BY JAMES T. HOLTER

This issue of *Futures* does not only represent our 500th, it is also the 20-year anniversary of our Technology & Trading feature, almost exclusively written by Murray Ruggiero. Murray has been writing for *Futures* since 1994. We recently sat down with him to find out what he's learned from two decades of writing about technology in trading.

FUTURES MAGAZINE: How did you get involved in trading?

MURRAY RUGGIERO: I have an undergraduate degree in physics astronomy and computer hardware/software. My first job was conducting failure testing of jet engines. I then ended up at Olin Chemical helping out the researchers. That's when I got my introduction to artificial intelligence (AI). We would use all these databases to try to find relationships among physical properties. We were buying all these products to analyze the databases, and one of the scientists there asked, "Can't I just plug this into my damn spreadsheet?" That was the genesis of Braincell back in the late 1980s.

Braincell was originally a neural network embedded into a Lotus clone. But when it was reviewed, it was reviewed as a spreadsheet and not as a neural network. So, we pivoted our concept and made it an add-in to Excel. We were at the Windows 3 rollout in Boston in 1991. It took off and our clients were using it to trade the markets. Because of that, I had to learn the markets to help my clients use Braincell effectively. One of the early uses I found that worked was using neural nets to predict moving averages. I learned early on that you can't treat the markets as a signal-processing problem. You can't just data mine relationships and expect to find something that is robust. You must have domain expertise. I committed to learning technical analysis. My goal was to become a technician without using AI.

FM: What was your approach to get that trading education?

MR: A lot of reading. A lot of testing. I made a lot of friends whom I learned from. For example, I got to know George Pruitt over at *Futures Truth* around this time. Because of Braincell, I had a lot of notoriety—we were in *Business Week;* we were in *The Wall Street Journal* two or three times. It was easy to get people in the business to talk to me. Then in December '93 or January '94 I ended up calling Ginger Szala at *Futures* magazine and she gave me an assignment, which was basically a smoothing of data using neural nets to compress data, to filter the data to have a zero lag filter.

A lot of the early articles were on neural nets. Most of the people writing about neural nets weren't combining them with domain expertise. People were expecting too much of them. I knew this approach was doomed to failure and that I would have to incorporate traditional technical analysis to have a long career. I could give it a technology twist, but I knew neural nets on their own didn't have a long shelf life.

For more from Murray, go to **futuresmag.com/Ruggiero500**

FM: How did you develop more as a technician?

MR: In 1995, Larry Williams hired me as a consultant and I worked for him about three-and-a-half years. Larry would basically have me conduct research projects. Some of it he would keep proprietary and some he would let me disclose. But he was very instrumental in my development. Larry is one of the few people in the business who actually understands the problem solving required to make stuff that works. One of the things that came out of my research for Larry was the adaptive channel breakout concept—setting the channel length to the dominant cycle. Larry told me, "Channel breakout works, but the length has to be right. You figure out how to adapt it. That's your project."

That's how he would leave it. This is one concept that I've covered in *Futures*, and I've used it in a couple systems. If you have a 30-day cycle, the market should go up for 15 days and down for 15, ideally speaking. So my underlying concept was you have an n-day high or low where the n is approximately the dominant cycle length.

FM: In terms of analysis, where do you feel you've had the most influence?

MR: One of the things I'm most proud about is intermarket analysis. The concept of intermarket divergence is an arbitrage play. The only time you know things are mispriced is when they are moving in the wrong direction. The only time you can tell there is mispricing is when the intermarket and the market you're trading are not on the same scale. A lot of my early systems are based on this concept. In 1998, I published a system that used utility stocks to trade bonds. You can do it with currencies, you can do it with gold. It's not just end of day. I have intermarket-based systems that trade intraday. I have a gold system that trade 45-minute bars, but that's about as short as I can go. For the logistics of my trading and that of my clients, I'm looking for trades that average north of $100 per contract. I'm sure high-frequency traders can make it work on an even shorter time frame.

FM: Can you rely too much on technology?

MR: When I was working for Larry, I used genetic algorithms to create rule templates and evolve trading rules. This was back before genetic algorithms became mainstream. The articles we did for *Futures* were some of the first on this topic in trading. However, one of the issues with genetic algorithms, which I learned early on, is they can be curve-fitting machines. I had a client who had a system developed by some very high-level people. He called me in early to mid-2002, saying, "I'm down 30%, and I'm going to lose all my clients. Can you look at this system?" He gives me the output from the indicator that he says was developed with "some type of AI modeling." I dig into it and find that it's about 90% correlated with a strategy trading today the four previous days. That in and of itself isn't a bad thing. If you look at 1998, you would have made a fortune trading today minus four days. So, the system worked [perfect] for two years, but if you analyzed the system, you would have realized that something that correlated was going to be dangerous. Once the market started moving sideways, you would have to pull the plug.

TOP 10 RUGGIERO ARTICLES

While 1994 doesn't seem so long ago, the time since encompasses several generations of technology upgrades. Here are the 10 most important articles written by Murray Ruggiero over the years.

1. **Intermarket analysis is fundamentally sound** (April 1998)
2. **Using correlation analysis to predict trends** (February 1996)
3. **Debunking the drawdown myth** (January 2002)
4. **Nothing like net for intermarket analysis** (May 1995)
5. **Breeding a super trader** (January 1997)
6. **Testing the black box system that feeds you** (March 1995)
7. **Building the wave** (April 1996)
8. **Seasonality trades, a sometime thing** (July 1996)
9. **The money trilogy: Gold, interest rates and the dollar** (September 2002)
10. **Making uncertainty work for you** (September 1998)

Source: Futures Truth

One of the big things I learned with all this AI stuff is you don't want to use AI to make your system. You want to start with a system that works and use AI to improve it. That way, if the AI elements blow up, you still have a tradable system.

FM: Is a high-tech approach right for everybody?

MR: A high-tech approach can give you more juice, but you have to understand it. The biggest problem is not following the system—traders often make the mistake of pulling the plug before the system reaches the max drawdown. Then two months later the system is at a new equity peak, but by then they're out of the markets. Also, try to develop stuff on your own. I don't believe in black boxes.

FM: What is your focus now?

MR: I'm moving back toward advanced technologies, particularly what I call "bot technology" in which I create self-adaptive walk-forward trading systems. I have an algorithm that picks the best parameters dynamically in n-dimension space. This isn't necessarily a new concept, but the hardware—and software specifically designed for that hardware—is now capable of supporting it. Multicore hardware and software is opening up new possibilities. The first time I did similar work was for Larry back in '94. I developed an adaptive system that used a lot of walk-forward optimization. There was good news and bad news. The good was it was the best system I had ever seen. The bad news was if he started it at 7 p.m., he got orders by noon the next day. The hardware couldn't do its job. Those issues have gone away.

For the typical trader, he can now be more effective trading multiple trading systems with a combination of trend following and intermarket analysis. You need to understand the basics to make the technology work, and you have to understand what's going to make the technology work. There are trading systems that are profitable to marginally profitable now, but most trading systems mask those assumptions. With the relative strength index, for example, we make the assumption that the tops and bottoms are lined up and we're trading half the dominant cycle. If you're trading a fixed-length RSI, that's not true because phases shift. Now you can plug in cycle analysis and keep a certain percentage of the dominant cycle. That's going to give you a more robust solution, and it's adaptive to the market.

Using AI, we can create smart components to manage parts of the system. As computers get faster, this technology can be brought to intraday trading. F

Murray A. Ruggiero Jr. is the author of "Cybernetic Trading Strategies" (Wiley). E-mail him at ruggieroassoc@aol.com.

TRADE TRENDS

New customer protection rules have landed: Are you ready?

BY MARC NAGEL

The twin debacles of MF Global and PFG have damaged the reputation of the futures industry demanding an examination of customer protection rules. New rules are being implemented, which will add cost and complexity to FCM compliance.

In the aftermath of the MF Global disaster, the futures industry immediately recognized the need to restore confidence by implementing greater protections for commodity customers. The Commodity Customer Coalition (CCC) was formed to advance customer claims. The Futures Industry Association (FIA) studied the situation and made "Initial Recommendations for Customer Funds Protection" in February 2012. The National Futures Association (NFA) and CME Group adopted many of the recommendations that the FIA offered. They required Futures Commission Merchants (FCMs) to file daily segregation statements, regularly report on customer funds, and set limitations on the withdrawal of the firm's residual interest in the segregated account.

Residual interest on deck
Segregation rules, risk disclosure

On Oct. 30, 2013, the Commodity Futures Trading Commission (CFTC) took up where the NFA and CME left off and adopted a new rule: "Enhancing Protections Afforded Customers and Customer Funds Held by Futures Commission Merchants and Derivatives Clearing Organizations." This 604 page rule is wide ranging and comprehensive. With some slight modifications, the CFTC included the rules drafted by CME and NFA, but they went much further. The new rules not only cover the handling of customer funds, but they mandate the adoption of comprehensive risk management programs, internal monitoring and controls and required disclosures to customers.

This article cannot reduce to a few pages what the CFTC spent 604 pages discussing, but will attempt to highlight many of the rules that are scheduled to be implemented in 2014.

Customer funds

The rules that are of direct concern to customers are those that address the handling of customer funds (see "Categories of customer funds," right). If customer funds are properly "segregated" from the FCM's funds, then customers should be protected from the liabilities of the FCM. Over time the segregation regime has generally worked well; however, as we learned from MF Global and Peregrine Financial Group (PFG), the segregation process does not always function as it was designed.

An FCM cannot commingle (without

For more go to futuresmag.com/regulations

prior approval) the funds in one category with those of another, and must keep the funds in an approved depository. The FCM must caption the account at each depository with a description of the type of funds being held, and the FCM must obtain an acknowledgement from the depository that it will hold the funds for the benefit of the customers, not the FCM. The investment of customer funds is limited to U.S. government or government guaranteed obligations, the general obligations of the States or bank or money market deposits. The CFTC removed sovereign debt and intercompany transactions from the approved list of investment as it was outsized bets on sovereign debt that contributed to the MF Global bankruptcy.

Segregated account

The segregated (or secured, or cleared swaps) account is the sum total of money or other property deposited by or for customers or earned by customers from their trading activities. The FCM adds to (or tops off) the segregated account by adding their own funds to provide a cushion in the event a given customer loses more than he has deposited. The FCM addition is called the "residual interest" in the account.

The new rules require an FCM to set a targeted amount for the residual interest based on the past history of customer trading activity, customer balances and customer losses as well as market conditions and liquidity needs. The residual interest target may be a fixed dollar amount or a percentage of the segregated account. On a daily basis each FCM must report their segregated funds calculation and their residual interest to the CFTC and their Designated Self-Regulatory Organization (DSRO). A similar calculation is made and reported for secured funds and cleared swap customer funds.

Categories of customer funds

Customer Segregated Funds

These are funds held for the benefit of customers trading on domestic futures markets.

Customer Secured Funds

These are funds held for the benefit of customers trading on foreign futures markets.

Cleared Swaps Customer Collateral

These are funds held for the benefit of customers to margin swaps cleared through domestic DCO (Derivatives Clearing Organization).

Revised risk disclosure

Customer funds are not protected:

- by insurance.
- by SIPC.
- by an Exchange Guaranty Fund.
- from losses by other customers.

Customer funds are invested and the earnings belong to the FCM.

Customer funds may be deposited with an affiliate of the FCM.

Limit on withdrawals

The residual interest is the cushion protecting against a shortage in the segregated account as any shortage could put the FCM in jeopardy. Under the new rules, FCMs are prohibited from withdrawing more than 25% of their residual interest without the pre-approval of a senior officer and proper notice of the withdrawal to the CFTC and their DSRO. After a 25% withdrawal, any further withdrawals are prohibited until a new segregation statement has been filed. FCMs are permitted to make withdrawals to or for the benefit of customers without restriction.

Residual interest rule

The most contentious of the new rules is known as the "Residual Interest" rule (which isn't really a new rule but a reinterpretation of an existing rule). Traditionally it has been industry practice to allow customers up to three days to meet a margin call. The CFTC has reinterpreted the rules to require that the FCM meet all customer margin calls from its own residual interest rather than from other customer's funds. Most FCMs felt that this would present a capital and liquidity issue for themselves and an undue burden on customers who may be called on to pre-fund margins. The current rule remains in place until November. Beginning Nov. 14, 2014 the CFTC will allow a one-day grace period before requiring the FCM to reduce its residual interest to the extent that any customer account balance is under the required margin. In the absence of a rule change, the grace period will be eliminated in 2018 and the FCMs will have to reduce their residual interest as of the close of business on the day the margin deficit arose.

Risk disclosures

The CFTC has always required that prospective customers be given a generic "risk disclosure." The new rules require the distribution of a risk disclosure that has been entirely revamped. The newly revised risk disclosures make it clear that the risks to a customer's account go well beyond market risk. The purpose is to advise potential customers of the issues that came to the surface in the MF Global bankruptcy. The new risk disclosures include a warning that customer funds are not insured, not protected by the Securities Investors Protection Corporation (SIPC) or Exchange Guaranty funds, and that fellow customer risks still exist (see "revised risk disclosure," above).

Beginning in July 2014, each FCM must also make available a firm specific risk disclosure document. The firm specific disclosure must include sufficient information about the FCM's business, operations, risk profile, affiliates and any other information that would be material to a customer's decision to entrust funds to that FCM. Also included in the firm specific disclosure document is information about the FCM, its principals, business activities and litigation. The FCM must include information about its capital, proprietary trading, concentration of customers and history of write offs.

Web postings

Beginning July 2014, each FCM must post detailed financial information on its web site (see "Web postings," page 42). The idea being that a customer can make an intelligent choice among FCMs if given sufficient information. The web site postings include information on cus-

Web postings

Each FCM must post on its website:

- Daily segregation statement for segregated, secured and cleared swaps funds.
- Summary capital computation for the most recent 12 months.
- Most recent certified audit report.
- Segregation statements for segregated, secured and cleared swaps from the unaudited 1FR/Focus reports for the most recent 12 months.
- Links to the FCM financial data on the NFA and CFTC websites.

Effective dates

Early warning notices	Jan. 13, 2014
Withdrawals of residual interest	Jan. 13, 2014
Segregated funds reporting	Jan. 13, 2014
Revised risk disclosure	Apr. 14, 2014
Risk policy	July 12, 2014
Firm specific risk disclosure	July 12, 2014
Web posting of financial data	July 12, 2014
Residual interest rule	Nov. 14, 2014

tomer funds, firm capital and monthly financial statements. There will also be links to the FCM financial data posted on the CFTC and NFA websites.

Risk policy

FCMs have been required to file a Chief Compliance Officer report annually. That report is intended to highlight material deficiencies that have been detected by the FCM over the previous year. The new rules require that each FCM draft and adopt a written risk policy that covers the full spectrum of risks faced by an FCM. Typically FCMs were most concerned about trading risks, but the new rules require a consideration of legal, technological, currency, liquidity, capital and operational risks, to name just a few. FCM's must submit their new risk policies to the CFTC and create "risk exposure reports" that are presented to the firm's senior management and directors quarterly. The risk exposure reports must then be submitted to the CFTC. The goal is to obtain an early warning on issues before they develop into serious problems.

Notices

FCMs have always been required to notify the CFTC and their DSROs in the event that they encountered any capital or segregated account issues. The new rules require the filing of immediate notice when an FCM experiences any material adverse impact to its creditworthiness or its liquidity. An FCM must give notice within 24 hours whenever there is a material change in its operations or risk profile, including changes of personnel, lines of business or clearing arrangements. An FCM must also give notice if it becomes the subject of a formal investigation conducted by a regulator. The CFTC does not want to be taken by surprise in the event that another MF Global or PFG should occur.

Training

The customer protection rules require annual training of all finance, treasury, operations, regulatory, compliance, settlement, and other relevant officers and employees regarding the handling of customer funds, procedures for reporting suspected breaches of the policies and procedures and the consequences of failing to comply with the segregation requirements of the Act and regulations. The training requirement cuts across many departments and many disciplines so that every employee who might have knowledge of a possible issue will need to be educated on what, when and how to report an issue to the compliance department.

Conclusion

The protection of customers and the safeguarding of their funds is a fundamental component of the CFTC's regulatory framework. Confidence in the entire financial system was shaken in the 2008 meltdown, and confidence in the futures industry was severely damaged by the MF Global and PFG disasters. Something had to be done to assuage customer concern. These new rules are undoubtedly detailed and well intentioned and may well serve to prevent another FCM failure. These rules, however, are extremely complex and will be very costly to implement. For some FCMs this may be a burden that they can't or won't be able to bear. The Residual Interest rule in particular will stress the capital and liquidity of the smaller FCMs that service farmers and retail customers. These customers may be better informed in selecting an FCM, but the result may be fewer FCMs for these customers to choose from.

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Brooks continued from page 26 ►

lose $37.50, or five times more. He has to be right 80% of the time just to break even. And that is not just on the next three trades for the next three days. It is for the rest of his career. Yes, theoretically it's possible. Paul Rotter supposedly made millions scalping for three ticks in forex, but it is so difficult and unrealistic that traders should not try it.

Fair targets

If a three-tick goal is too small, what is reasonable? It varies with every market, but traders can quickly figure it out by looking at the price action. If there are a lot of six-tick moves in the E-mini, then a lot of traders and computers are scalping for four ticks. (If they enter on a stop one tick beyond the signal bar, the market usually has to move five more ticks to secure a four-tick move). If there are a lot of 22¢ moves on crude oil, many are scalping for 20¢. If there are a lot of 12-pip moves in the EUR/USD, then traders are scalping for 10 pips. If a trader is looking at limit order sets, everything will be one tick less. For example, if there are a lot of nine-tick moves in the E-mini, then many traders are scalping for two points (eight ticks).

Because scalping is extremely difficult to do profitably long term, most traders should look for trades where the reward is at least twice as big as the risk. If a trader thinks he needs a 20-pip stop in the EUR/JPY, he should plan to hold for a 40-pip profit. During strong breakouts, the momentum is strong, which means the probability of follow through is high. In these cases, the probability of a profitable trade is 60% or more, which means it is mathematically reasonable to scalp for a reward that is the same as the risk, instead of two times bigger. If he risks $2 in a gold breakout, he can exit with a $2 profit and still have a mathematically sensible trade.

There is a little more to this because the initial risk is not the same as the actual risk, and the profit target usually should be based on the actual risk. If a trader initially risks 50 pips in a EUR/USD trade and the market went against him for 12 pips and then quickly went his way, he now knows he had to risk only 13 pips to avoid being stopped out. This means his actual risk was only 13 pips, not 50 pips. All of the computers can detect this, and many will then adjust their profit targets based on this actual risk. This means many will take partial profits at 13 ticks, where you will often see a small pullback from the profit taking.

Why choose a reward that is two times the risk for most trades? Because most traders are never too confident about their assessment of the probability when they enter a trade. Remember, there has to be something in it for the institution taking the opposite side of your trade. It has to be able to make a profit if it structures the trade correctly, which often means it will scale in.

The institution thinks its side is good, and you think yours is good. The result is that we trade in a gray fog. However, at almost every instant in every market, the probability that the next five ticks will be up rather than down is between 40% and 60%. If you buy or sell at any time and hold for a reward that is about the same size as your risk, you will have at least a 40% chance of success. If you plug 40% into the "Trader's Equation," you will see that you will need to hold for a reward that it at least twice as big as your risk to make a reasonable profit over time. Bottom line: You are always going to be uncertain when you enter, but if you always try for a reward that is twice as big as your risk, the math is on your side.

Also, whenever you have a profit that is twice as big as your risk, you can always exit. The math always is good for this approach. If the trend is strong, the math is in your favor if you hold for a bigger profit, but it is always mathematically reasonable to exit part or all of any trade once the profit is twice the risk. Also, if the trade is a high probability trade (60% or more) it is mathematically reasonable to exit part or all of the position once the profit gets as large as the risk.

The next article will cover the folly of fundamentals and indicators as well as scaling into trades. F

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CLASSIFIEDS

Dever is no jackass

BY THOMAS DIXON

In his 32 years as CEO and founder of the futures research and trading firm Brandywine Asset Management, 26% of the markets traded with Mike Dever's strategies have lost money.

"Most people would say, 'I'm not going to trade those markets, they don't work in that strategy,'" Dever says. "Well, that's just wrong. But I'm fine with that. I don't need people to agree with me."

Dever says he'd actually prefer if people disagree with his trading methods—it's what gives him an edge.

"Other traders aren't rational players," he says. "They're just full of biases and that's what creates opportunities. They don't follow a disciplined, rational approach to trading, which for us means a systematic process."

MIKE DEVER

Brandywine's systematic process is rooted in two core concepts of Dever's: return drivers and predictive diversification.

A return driver is "the primary underlying condition that drives the price of a market," as Dever put in his 2011 best-seller, *Jackass Investing: Don't do it. Profit from it*. Sound, rational return drivers can be combined with relevant markets to create effective trading strategies. These trading strategies can be combined to create truly diversified portfolios—that's where predictive diversification comes in.

Predictive diversification, the setup for Brandywine's portfolio allocation model, is the concept of using past data to create a portfolio that will match past performance as much as possible, whether good or bad.

Dever says he first came up with this concept while working with researchers to develop the portfolio allocation model for Brandywine's Benchmark program in the late 1980s. He had initially started trading futures in 1979 after developing a computerized trading program while studying at West Chester University. His first trade was in gold options and he had to finance it by selling his car.

The researchers were given strategies and market performances that Dever had backtested, and were expected to come back with hypothetical allocations. They came back with large allocations to a few strategy combinations and no allocation at all to others.

Dever asked one researcher how he came up with those numbers. The researcher said it was the optimal allocation.

"There was a flash in my mind at the time and I realized he was right," Dever says. "All these guys had created the perfect answer to the wrong question. Everyone was trying to create the optimal portfolio, and what I realized in that instant was all I care about is creating a portfolio that's past performance is likely to persist to the future. I don't care if the performance is good or bad—if I don't have some predictability, I have nothing to evaluate."

This is why Dever continued trading the markets that lost money. To do otherwise would be to betray his systematic process.

In the Brandywine Symphony system, the Benchmark program that he updated in 2011, no one market or return driver ever dominates the portfolio's performance. There are well over 100 markets and dozens of strategies in the portfolio, so any single trade based on any market/strategy combination will impact the portfolio by less than 1%.

Because of this, the Symphony model only profits with proper capital, he says. Brandywine's minimum investment level is $5 million. "Anything less than that and you end up with a portfolio that's not truly diversified and is subject to substantial risks," Dever says.

Undercapitalization and a biased allocation approach makes for high highs and low lows, he says. The opposite, however, doesn't necessarily mean you can't make major short-term gains.

"I feel like when you're properly diversified and properly capitalized, you can make a lot more money in the short term as well," Dever says. "You can have more leverage in the portfolio because it can support more leverage when it's properly diversified."

Brandywine also employs short and long-term trend-following strategies to ensure the portfolio is correlated to trend-following traders during strongly trending periods, but uncorrelated during choppy market periods. This helps boost Brandywine's risk-adjusted rate of return.

The approach has worked as both his Symphony and Symphony Preferred (X3) programs were positive from 2011-2013 — years when the Barclay CTA Index was negative. Year-to-date the Symphony program is up 10.16% and X3 is up 34.80% through June.

For now, Dever says the best way to continue to boost the rate of return is by developing additional trading strategies based on return drivers.

"Our job is pretty simple at this point," he says, "When we made those core decisions 20 plus years ago, we were 90% of the way there. Now we just need to keep adjusting. There are all sorts of things out there that are having various impacts on the markets we're trading in and it's our job to make sure we've developed a valid trading strategy based on those return drivers."

"The more we have in the portfolio, the more diversified we are, the better the predictability of our performance and the smoother those returns will be at any given level of projected risk."

In 2011 Dever challenged many of the most egregious investment myths with his book and since has proven that he is no *jackass* investor.

PHOTO: COURTESY OF MIKE DEVER


Confidence to invest
That's what commercial lenders can achieve when they're smart about managing risk. And smart lenders can seed innovative new businesses by working with CME Group, the world's leading derivatives marketplace. Emerging growth companies and financial institutions around the world partner with us to manage virtually every kind of risk. Interest rate fluctuations, stock market movements, changing currency valuations – whatever the risk, we help the world advance beyond it. Learn more at cmegroup.com/advance.
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