



Opalesque Round Table Series '12

MANAGED FUTURES 2012

Opalesque Roundtable Series Sponsor:



Editor's Note

Dear Opalesque Reader,

Welcome to the 2012 Opalesque Managed Futures Roundtable. This is our second such event as the first one took place three years ago [in Chicago](#).

Since the end of 2008, the markets have been a little trickier for a lot of managed futures funds. The environment has been different, but this has allowed many of the fund managers to incorporate new data into their research process and adapt accordingly. And one should bear in mind it is not the first time that this has been a challenging market environment for CTAs and managed futures funds. In fact, the industry has “died” several times - and revived when the market provided opportunity. And this always happens.

So far 2012, according to the Roundtable participants, has been a very politically-driven environment with less opportunity for diversification, changing correlations. An environment in which good CTA managers can struggle.

“We got into a period where rather than seeing the usual market forces that drive market outcomes and have predictable co-moments across different variables, we have witnessed a lot of government and intervention-driven changes which do not obey those same rules. As we move in back-and-forth between market-driven and government-driven, it is pretty hard to find a strategy to rely upon,” Kevin Murphy said. But government-driven changes may be waning.

During this Roundtable, we discussed new developments, returns, risk-off moves, long term and short term strategies, artificial intelligence, assets, start-ups, CTAs vs. hedge funds, macro-economics, technology, algorithms, MF Global, CTA vehicles, price momentum, now-casting, volatility, currencies, social media, black boxes, and an investable wide-ranging CTA index coming to us soon.

More specifically, the following points were tackled:

- How managed futures strategies handle **macro-economic instability**;
- Why the **returns** have been quite flat since 2009;
- Why CTA **investors** are putting their money mostly in brand names and long-term strategies; How can one make investors comfortable with the concept of CTAs (and not just call them black box)?
- The **institutionalization** of the CTA industry;
- **Correlations** of short-term traders and long-term traders;
- What to take into consideration when looking to invest in a **new fund**;
- The **difference** between hedge funds and CTAs;
- The extent to which the managed futures business is linked to **technology**; and the difference between **research technology** and **trading technology**;
- The use of **economics** with a purely quantitative approach; and the problem of **over-fitting**;
- **Discipline**: why it is important in a trader;
- The battles of **second generation algorithms** (aka “robots”);

- Two NFA board members' take on the **MF Global** and the Peregrine Financial Group events and related regulations;
- Different **vehicles** that give investors access to CTAs, now and in the future;
- Managed futures funds **hubs**;
- **Price momentum**, the missing factor which helps understand the sources of return;
- **Nowcasting**, the real-time processing of macroeconomic data;
- How CTAs handle **volatility**;
- The difficulties of **currency** trading, opportunities in emerging market currencies, and the fate of the euro;
- Potential research using blogs and social media;
- The creation of an investable index in the managed futures space that is actively managed and will capture the core returns of the industry.

This Opalesque Managed Futures Roundtable was sponsored by Efficient Capital Management, and our 2012 series sponsor is Eurex. It took place on September 21st, 2012 at the famous Chewton Glen Hotel in Hampshire, England. The participants were:

Ernest Jaffarian, Efficient Capital Management

Grant Jaffarian, Efficient Capital Management

Sam Gover, Altiq Asset Management

Kevin Murphy, Axiom

Doug Bry, Northfield Trading

Michael Brandt, QMS Capital Management LP

About 50 people, who attended the previous day's Efficient Capital workshop, watched the Roundtable and asked their own questions at the end, helping to make our rendering of the current managed futures space even more complete.

Enjoy 'listening in' to the 2012 Opalesque Managed Futures Roundtable!

Benedicte Gravrand

gravrand@opalesque.com

Participant Profiles



(LEFT TO RIGHT)

Grant Jaffarian, Doug Bry, Sam Gover, Michael Brandt, Kevin Murphy, Benedicte Gravrand, Ernest Jaffarian

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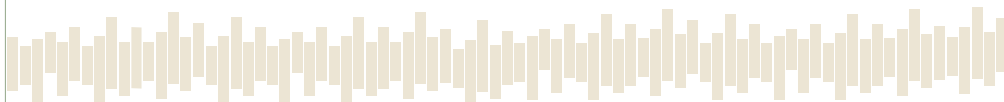
We believe every well diversified portfolio should have exposure to Managed Futures. This is a consistent theme of multiple academic papers. For this reason, Efficient Capital® dedicated itself from inception to maximizing the unique benefits of Managed Futures for the benefit of institutional investors.

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+1 630 657 6800

info@efficientcapital.com

Photo left to right: **Donna Allen**, Chief Compliance Officer; **Mike Marcey**, Managing Director of Strategic Development; **Ron Davis**, Chief Operations Officer; **Ernest Jaffarian**, President and Chief Executive Officer; **Jim Field**, Chief Financial Officer; **Grant Jaffarian**, Chief Investment Officer.



Introduction

Sam Gover
Altiq Asset Management

I co-founded Altiq Asset Management about three years ago. We are a firm specializing in relatively short term futures trading using quantitative methods and automated trading.

My business partner and I have been in the industry for around 19 years, during which time we have seen a huge growth in electronic trading, making it a very interesting space to be in.

Kevin Murphy
Axiom

I am one of the co-founders of Axiom, a firm that specializes in trading the G10 currencies. We use economics to help us build models and embed those models in a quantitative framework incorporating a mixture of short, medium and long term factors.

Ernest Jaffarian
Efficient Capital Management

I am the founder and CEO of Efficient Capital Management. Efficient is a specialist in the managed futures space. We build multi-manager portfolios, principally for institutions.

Doug Bry
Northfield Trading

I am the President and co-founder of Northfield Trading. We are a 100% systematic and disciplined CTA. We actually started as a software company, we developed all of our own technology for research and implementation, and we tend to be shorter term than most CTAs with an average holding period of about 10 to 15 days.

Michael Brandt
QMS Capital Management LP

I founded QMS Capital Management LP. Our managed futures strategy is a tactical blend of medium to longer term fundamentals based global macro models with shorter to medium term markets based trading models. The premise of our approach is that asset markets at times are driven by underlying fundamentals, such as business cycles and risk premia, and at other times are driven by market dynamics, such as sentiment and liquidity. Our quantitative approach tactically allocates risk to fundamental macro models versus markets based trading models in order to exploit this time-variation of what drives markets at a given point in time.

Grant Jaffarian
Efficient

I am the Chief Investment Officer at Efficient, and my role there is to manage and oversee both the manager selection process and the portfolio allocation process.



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Which opportunities are you pursuing in your firm and what new products are you developing?

Sam Gover

We are focussed on trading opportunities of a few hours to a few days horizon. This is still an uncrowded space in futures markets, and presents lots of opportunity for research.

We are still a relatively young firm, having launched our first product about 18 months ago, and so our future plans are mostly about growing the business, raising assets and the recruitment of additional talented individuals to join the team. It has been quite a challenging period to have started a CTA fund, so we are of course evaluating the different types of forecasting model we use to see how they fit within the current environment, and to see whether we can do things better or differently. But so far, we are happy with the way the business is going.

Kevin Murphy

We have a couple of projects underway: as always, we are continuing to update our models to reflect the changing market environment. Some of that is done automatically within the model as a way to measure the current state of the marketplace and the factors that are most important at present. This is because the relationship between our predictive variables and the currencies we are trying to predict changes as market conditions change. We have certainly seen lots of change over the last several years.



Our other major project underway is to expand our universe of traded currencies to include some of the emerging market currencies. We are pretty far along and we expect to introduce that in our trading models shortly. We also have ongoing work to improve our trading framework, an area in which we introduced a couple of new innovations in the last year.

Ernest Jaffarian

Maximizing the full diversification of the CTA space remains our core focus. We have one portfolio that we have run for many years. We are looking to take advantage of our infrastructure, database, and research team capabilities to provide customized multimanager solutions for people that have specific needs.

We are also working on a project in cooperation with one of the largest and best known providers of indexes, to create a CTA index that is representative of the entire CTA space and is investible. We will be providing the research for that index, creating a private platform for the actual managers, and providing an investable product to reflect the returns of that index.



Doug Bry

Northfield offers one product, the Northfield Diversified Program, which actually includes six separate strategies. The six strategies fall into two general categories. The first is what I call 'simple and elegant mechanical trading systems' and includes five of the six strategies in the Program. These are strategies that work across markets and are as simple as possible. The sixth strategy is an artificial intelligence system; we actually started researching it seven years ago and it took five years to get it to the point where we really thought we had something that would work in the markets.



I think people misunderstand artificial intelligence; it is really using the power of the computer to find more subtle relationships including relationships across markets and other inputs. We continue to do a lot of research both on the simple mechanical strategies and also on the artificial intelligence approach.

Michael Brandt

We built QMS as a laboratory for financial research, so modeling continues to be our primary activity. We do not have a single model or static set of models, but rather deploy a constantly changing collection of models that evolve as we learn more about how markets function and how this changes over time.

We are currently researching actively in the commodity space, particularly trying to build quantitative supply-demand based fundamental value models. This has been challenging for quants because of how heterogeneous commodity markets are.

**Grant Jaffarian**

In addition to some of the things Ernest mentioned, our focus remains predominately on our core product. We are continuing our research on manager selection, we are doing rigorous quantitative research on portfolio construction techniques, and we are being more comprehensive in our approach to allocation methodologies as well. There are several internal studies underway both on theoretical data and on our own portfolio, as we continue working on improvements.

Benedicte Gravrand

So far in 2012, we have seen good trends in commodities, energy, equities; we have seen rallies and reversals in currencies and bonds, and much volatility - especially short term volatility. What kind of trading environment is it for managed futures funds this year and what are the changing dynamics?

Doug Bry

A lot of market behavior is driven from our perspective by expansions and contractions in volatility, so some of our systems have been able to profit in this environment.



The other thing that has been going on for a couple of years is this never-ending European debt crisis. And that certainly has led to a lot of directionless volatility in the market that has caused issues for some strategies. The continued solutions of just borrowing more money that are being discussed in Europe may not solve the problem in the end. It just seems to create more debt.

I do not know what the solution is. All the different countries have to somehow come together and agree, but that does not seem to be happening.

Sam Gover: It has been a very politically-driven environment. Since the second half of last year, every other statement that has been coming out of central banks or governments has been driving markets one way or the other. There is no consensus of when we are likely to get out of the current downturn, which means that these statements become very important to people. The statements, and other data releases, have led to market moves which either reverse at the next announcement, or peter out as the market discounts them. That makes it quite challenging to trade from a momentum perspective as it really just depends on what time scale you are operating on.



We have seen positive results from models around the one-week mark, variable performance from shorter time-frames and generally poor results from longer term models.

The factor-driven nature of the environment has also made it difficult, with risk-on-risk-off dominating most market moves, leading to less opportunity for diversification. Recently we have begun to see dispersion increasing which is positive, but it is still a difficult market.



Correlations since 2007 have been very different than prior to that, particularly in active strategy returns. Portfolios which previously seemed diversified across different return drivers or factors have become more concentrated bets in recent years. These changing correlations make it critical to have a strong quantitative risk model.

Kevin Murphy

The same changing correlations have obviously changed some of the predictive relationships significantly and shifted some of what used to be predictive relationships into more contemporaneous relationships.

Essentially what has happened is we got into a period where rather than seeing the usual market forces that drive market outcomes and have predictable co-moments across different variables; we have witnessed a lot of government and intervention-driven changes which do not obey those same rules. As we move in back-and-forth between market-driven and government-driven, it is pretty hard to find a strategy to rely upon.

**Ernest Jaffarian**

As we monitor the returns of managers, we are observing that managers that have done better in the past are struggling.



But the impact of the government involvement in the manipulation of markets, from my perspective, seems to be waning. Trading is beginning to return to what was normal in the past, in which markets moved more naturally. I hope that trend continues. It seems there was a turning point sometime this year in the government's ability to meaningfully sway the markets.

Grant Jaffarian

In addition to the correlation picture, which I think is an important point, we have noticed that the absolute size of risk-off moves seems to have been muted over the last three or four years, relative to perhaps the last thirty or forty years.

It has been more difficult in the last three years to find a way for short-term strategies (for example) to take advantage of risk-off moves. Markets have tended to move in a risk-off direction for perhaps a day or two, only to snap back to a risk-on scenario, and so it has been harder to see sustainable trends there. Reasons why it might be changing would certainly include - as Ernest mentioned - the impact of quantitative easing, but it has been more difficult in general to profit from these reversals and lack of trend follow-through.

**Sam Gover**

In the case of recent interventions, people are already aware of what is going to be announced; it is just a case of when it is announced. The market is already discounting much of the intervention before it actually comes. So you have this curious feature in that bad news can become good news because it is likely to bring on the intervention sooner. That is perhaps why market reactions have been more muted recently.

Benedicte Gravrand

Just to go a little bit deeper into that, how can systematic strategies handle macro-economic instability and high volatility? Is there any true crisis alpha, for example?



Although not every single CTA would necessarily find opportunity in markets that explode directionally, most do historically. As managed futures strategies evolve, they will not evolve beyond their ability to capture divergent opportunities and strong volatility trend moves. That will be the bread and butter. You will not hear CTAs say, “Let’s become a strategy that can only take advantage of less volatility, or perhaps strong mean reversion opportunities because long volatility trends and market shocks are a thing of the past.” The trend-capture personality of managed futures is a good thing for long term returns and alpha contribution. When a well diversified portfolio needs CTAs, you want them to be there for the 2008 environment.

On the one hand, you do not want to switch everything you are doing, and I do not think the industry is doing that (we are certainly not, on that product). On the other hand, as a thoughtful manager and multi-manager allocator into managed futures, you need to be aware that this is not currently the ideal trend environment. So, articulating what that means for your strategy is something that we are seeing our managers do to some degree, while still ensuring that they will be there for the opportunity that, frankly, investors expect managed futures to be there for.

Kevin Murphy

I see a couple of things. First, one of the things you want to count on is whether your model is good at knowing when there are opportunities and when there are not. Most of the time we have been pretty light in the markets, mostly because the model is telling us that the opportunities have not been there; there have been exceptions to that at times where we have come in more strongly. Second, your risk management must be in place. Those are the two things that are critical in the model.

Michael Brandt

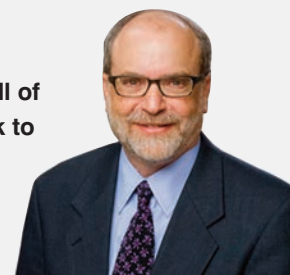
We view things somewhat differently. Roughly half of our portfolio risk is in relative value models and half is in directional models. When our directional models have difficulties picking up strong trends, as they have in recent years, our relative value models tend to see greater opportunities in global divergences of fundamentals, valuations, interest rates, etc.

Doug Bry

Since the end of 2008, the markets have been a little trickier for a lot of CTAs.

But the fact is, we now we have about three and a half years of data since that point, and have incorporated that data into our research process.

For at least the way we approach research, we look for things that hold up pretty much across all of the data. The challenge at this point becomes finding strategies that work well, really going back to the 1980s up to and including the past three-and-half years. You should always look at research results skeptically, but if we take the changes we have made and look at the recent data, our current research results do well over the past three and half years as well as the earlier data.



Kevin Murphy

I agree, it is one of the things that we have been finding as well. For example, we found that some of the equity signals that we have been using were too aggregated for the current complex marketplace, and that there is stability if you look beneath that even further than before.



The fact that we have gone through a different environment has allowed us to learn some things that were hard to separate out when the world just kept moving in the same way it did before. This is what we call in econometrics the multi-co-linearity problem. The recent changes in that environment has somewhat solved that problem. Even though it was painful to be a participant through that breaking process, it is likely to be helpful going forward.

Ernest Jaffarian

Sometimes it is good to take a step back and take a long-term, big picture view. This is not by any means the first time there have been market environments that CTAs have found challenging.

I have been in the business long enough to see the industry “die” several times. From my perspective, it is still business as usual: CTAs are continuing to research and continuing to progress. The markets will provide opportunity. We do not know exactly when and how that will happen, but we do have a lot of history that says it will happen.

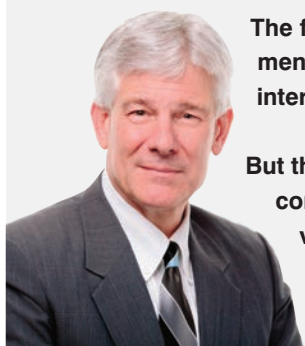


Benedicte Gravrand

The CTA industry’s returns have changed over the years. If you look back in 1980, the Barclay CTA Index returned 63%; in 1990 it was 21%; in 2008 it was 40%. It has been quite flat since. What has changed?

Ernest Jaffarian

There are two large issues that really need to be kept in mind.



The first is that we are in a close-to-zero interest rate environment. The historical returns you just mentioned have included interest earned from money not used for trading. So, when short term interest rates are low, as they have been recently, that will affect returns.

But the second, and bigger issue, is that the average volatility across the CTA space has gone down considerably. Back in the 1980s, some managers were trading programs with an annualized volatility as high as 40% or 50%. The industry has become much more institutionalized and the average volatility of the managers is down. The return relative to the volatility has not changed nearly as much as it appears on the surface.

Doug Bry

I agree with Ernest, people are not trading as aggressively as they used to and that certainly explains part of the drop-off.

But I would also contend that the markets are becoming a little more difficult and more challenging to trade. You have more people trading more strategies, and in some sense the markets have gotten a little more efficient. There are periods, and this links to what Ernest was saying, where there are more opportunities or fewer opportunities. The level of opportunities expands and contracts, but there is an overall trend toward people with more computers and more strategies, all looking for an edge; this is when it becomes a more difficult environment.

Sam Gover

I would agree with Doug. The markets do clearly change over time and more participants coming into the CTA space is going to have a big effect.

In general the most noticeable trend is the reduction in the time horizon of some of the opportunities; back in the 80s it was not uncommon to have trend-following strategies with 12-month holding periods; that has gradually shortened as the markets have developed, particularly with the advent of electronic trading – which is still relatively recent as it really only took off in most futures markets in the last 5-10 years. Electronic trading has really opened up new opportunities as it has enabled short-term strategies down to more or less any trading horizon.



Benedicte Gravrand

There are more investors in the CTA business than before. However most of them will put their money in brand names or long-term strategies (not short term). Why is that?

Grant Jaffarian

The industry has seen an evolution over the last five years in particular. Frankly, short-term trading, as measured for example by the Newedge Short Term Index, was really successful leading into 2009. Strong returns by short term traders were following on the heels of significant improvements to electronic trading and execution technology across the board, plus sharp shorter term trends. We saw that in our own product.



It does not really matter how institutional your are; investors will always be tempted to follow returns. As a result, we saw huge inflows of assets in the first quarter of 2009 in particular, on the back of this tremendous performance cycle directly into short term trend trading opportunities. After that, a perfect storm for short term trading opportunities occurred. We saw declining volumes on exchanges, which made it more difficult for short term traders to trade. They had a lot more assets under management as a group, which meant they were competing more and more with each other.

The short answer is that they did not perform very well for three years, and the assets followed suit, exiting those strategies.

Benedicte Gravrand**Assets are still coming in, are they not?****Grant Jaffarian**

They are still coming in, but certainly the spread between long-term trend following assets and short-term assets has actually widened over the last three years. As Ernest mentioned, whether the industry is dying over and over or whether certain strategies are in vogue, it is a constant cycle. Asset outflows are generally a pretty good indication that those that are losing assets are going to have their opportunities soon; we have seen that over and over again.

Sam Gover

I agree with Grant, it is a feature of the institutionalization of the business as well, we have seen the same thing happening in the hedge fund space where larger managers become larger and smaller managers struggle to make their mark. It has come a little bit later to the CTA industry, but has been very significant recently. For small managers, it just means that you have to realize that is the way the business is now. It creates opportunities in terms of the maturing of the industry, but you do have to differentiate yourself from the larger players and show why you think you deserve an allocation.

Ernest Jaffarian

There is no getting around the fact that 2008 was a critical turning point for the CTA industry. There have been academic articles for years about the value of CTAs in an institutional portfolio, but that point was driven home in 2008 because the CTA space stood out as one of the very few places that made money.

If you are a large institution, and have decided that all this academic work is compelling, and have made a decision to get involved in the space, then the concern for reputational risk is very important. You need to be sure, before making a large allocation to a manager, that the manager is actually able to handle the allocation. As a result, many large institutional investors have ended up giving their money to firms that trade with a longer time frame, who are well established, who have a recognized reputation and can handle large assets. Hence, the phenomenon that you see. In short, there have not been many strong institutional alternatives to that approach in the past, but I think the industry will respond to that as well.

**Doug Bry**

I actually do not like the term 'crisis alpha'. While there is some truth to it, that CTAs can do well during a crisis, our objective is to really try to be profitable in almost any environment.



Sam Gover: It is clear that short-term managers have much lower correlation amongst themselves, which is probably a result of it being a much more recent space; short term trading has really only developed and become significant in the last five years or so. There are more opportunities for doing different things within the space, you have got more data to work with, so you have got more opportunity for novel research.

The one thing that links most short-term managers is short-term momentum or break out over one to three to five days, something of that order. That is why you get the correlations in the 20-30% range that you do, and similarly with the long-term managers, but around that, you have got opportunities around how you trade those models, and transaction costs become much more important. The actual execution process can differentiate you from your peers and also there is opportunity for reversion within short term markets and so on.

If you take individual short-term managers that appear to have very little correlation to each other and very little correlation to the CTA industry at large, and put, let's say, ten of them together in one portfolio, what you find is that collectively the correlation goes up significantly. So really, by combining a group of shorter-term managers together, you develop a more sophisticated composite momentum trading program with higher correlations.



Ernest Jaffarian

There is an interesting phenomenon in the short-term manager space.

Kevin Murphy

I agree with the empirical result, but as you push them together, you are naturally going to raise the correlation; that is because there is a common component there between them that drives part of the return. But that does not mean you have not also accumulated some positive alpha from all those individuals strategies that are being combined together as well, because they are not necessarily taking offsetting positions.

There actually is some additional alpha that can be gained by the different strategies that different short-term managers are engaged in. There are just lots of different frequencies you can operate at and different relationships that can be exploited. Those do not necessarily cancel out when you add them together.

Doug Bry

People use the phrase 'shorter-term' in many different ways to mean different things. For us shorter-term is meant to describe holding periods of maybe 10 to 15 days on average, maybe a little bit less, five to ten days.

More recently there has been the advent of high frequency trading, which can also sometimes be described as short-term. But I would put high frequency trading in a separate category. The correlations that are most important are the correlations of the shorter-term traders to the longer-term traders.

A lot of the money that comes into the CTA space goes to the longer-term traders; people that are allocating longer-term would benefit from also including allocations to the shorter-term traders, because that creates a more balanced CTA portfolio.



When you are dealing with a manager that is that fresh, you need to make sure you do your homework. Of course you need to know the history of the principals, that there has been trading experience in past. As is always the case, but especially with new managers, you must carefully view the operational infrastructure. For example, if managers have not thought through well how they want to handle their operational challenges (for example, daily proofing their trades), there are likely going to be issues on the trading side or the research side as well.

There is only so much you can tell from data when you only have a year's worth of it to work with, so again it demands a lot more energy in trying to evaluate whether what they are doing is sustainable. It is certainly not the time to cut corners so it demands extra rigor.

Benedicte Gravrand

What is the difference of the risk return profile between CTAs and hedge funds?

Ernest Jaffarian: To talk about them as broad categories is difficult, but among some of the characteristics of the hedge fund space, close to 90% of hedge fund exposure is in some combination of fixed income or equities and strategies around those. Generally speaking, there is high beta exposure in hedge fund strategies. A primary source of return comes from convergence trading strategies.

CTAs on the other hand are only in liquid, non-directional markets. They are dominated by a desire to achieve a return by divergence, markets going from point A to point B, and not earning any return from factors like liquidity premium or a credit premium.



So in my mind there is a very strong difference. Simply assigning CTAs to the alternative world and calling them a form of hedge fund really blurs the distinction between the two investment approaches.



Michael Brandt: Some people think of CTA/macro managers as traders. I like to think of them instead as tactical beta timers -- beta being a more general term here representing factors, so equity market exposure, interest rate duration, carry exposure, and other risk factors. Traditional hedge funds, in contrast, tend to deliver fairly stable beta exposures over time.

Sam Gover: What you generally find is that CTAs have lower Sharpe ratios than hedge funds. This has historically put off investors because they see much smoother returns in some hedge fund styles; this leads to the perception that CTAs' returns are of lower quality or more risky in some way. But what they do not see really is, long-term, in some of these types of hedge funds every now and then during a crisis event, there will be a massive sell-off in that particular style, particularly when they have big exposures to certain types of factors like value, credit, or liquidity for example. We have seen that many times over the last couple of decades, with sell offs in Carry in 2007/2008, fundamentally driven long/short equity in August 2007, LTCM in 1998.



So sometimes investors fail to see that those kinds of risks exist in certain styles of hedge fund trading, whereas in the CTA space, things are much more transparent; what you see is what you get. Perhaps it does not look as good, but you can believe it.

Kevin Murphy

Anecdotally, I was on a panel one time and a presentation was being made about the character and value of hedge fund investments, and this statement was made: "If you look at the last ten years apart from five days, the returns are phenomenal." I said "Well, I am here to talk about the five days." CTAs and hedge funds have very different return distributions.

Doug Bry

You have to distinguish hedge fund styles as Ernest is saying, but in general a lot of hedge fund styles are correlated to the overall direction of the stock market, whereas CTAs have a much lower correlation to the stock market. Maybe sometimes negative.

Benedicte Gravrand

To what extent has the CTA business become a technology business and how does one evaluate a CTA's technology?

Grant Jaffarian

Among our managers, there is a wide spectrum of significance placed on technology.



The reality is, there are some very good traders for whom technology is not a major player in their business model. These traders are a minority among managed futures, but some of our traders are doing essentially what they have done for decades, and they continue to do it successfully. In general, they are trading with more macro factors and they have tremendous discretionary experience.

The shorter the duration of your trading and the more technical-systematic you get, the greater the need to be aggressive in your use of technology. It really can become a very technology-driven industry, and we have seen the evolution of expertise in those areas explode in the last ten years.

Grant Jaffarian

Many of our managers are doing very clever things, offloading a lot of their IT to server-farms or collocating servers at the exchange level. These are things that are becoming more the norm than the exception. That used to be the case with prop trading groups who were doing extremely high frequency trading; now it is almost a rite of passage for a lot of short-term traders. So that is definitely happening, but it remains just a function of extremes in our industry which I find fascinating, because both can meet with success.

One last point, we have not found the right answer per se on the technology piece, especially on the execution side. Some of our managers do very well by still employing some of their own discretionary traders. So there is no right answer. I think any trader needs to be aware of what is out there and understand what they need to meet their own needs.

Ernest Jaffarian

On the other hand, there is no denying that technology has radically changed the managed futures industry. If you think about things on the exchange level, electronic trading now has opened up timeframes to traders that were not in the past financially feasible; it has substantially increased the transactional volume; it has decreased execution and clearing costs. It has really added a lot of breadth to the industry. Technology doesn't just influence things on the trader level; it affects the whole development of the industry at large.

Doug Bry

We started 26 years ago as a software company. We view being 100% systematic and 100% disciplined as enhanced by our ability to create our own tools, develop our own software and to stay ahead of the competition and what is commercially available by doing it ourselves. So from our perspective technology is a big key component of what we think of as our edge in the markets.

Kevin Murphy

We use technology and certainly technology plays a role.

Kevin Murphy: But I really think there is a whole spectrum here that is not even just the two extremes; you should try to take advantage of what you are good at. That is really the key, and if you are really great at technology you should push that.

On the other hand, if you mostly rely on economics or on good ways to process data from a statistical standpoint, you can go in that direction. You see the full variety out there.



Success is going to be more determined by whether people are doing the aspect of it that they are good at. The one way that works is the way that is good for your skill set. In our case we try to take advantage of economics and we think we have a high quality way to process and analyze data. It is a very heterogeneous industry.

Benedicte Gravrand

Kevin, can you tell us a bit more about how you do your processing of macro-economics data?



Kevin Murphy: We use economics and yet we have a purely quantitative approach. So even though we rely on economics a lot, it is more to guide the building of the model. One of the key things you have to avoid in this business is over-fitting; you have to correctly process the information that is available, and economics is a great guide because it tells you what things you ought to look at, what you ought to measure and you should measure them. Economics identifies the underlying concepts and drivers of changes in values. The data itself is always much more messy than you would like or than how the textbooks lay it out. So one of the other things we stress is we should process the data in a very coherent way.

One of the things you have to take account of is, we trade currencies which trade throughout the day and night. But while it is a 24-hour marketplace, it is not 100% active everywhere in the world at the same time. So one of the big variables that we try to deal with is how we take account of that. How do we take account of the fact that a movement in the interest rates or the futures price or something means something different when Europe is open and the US is closed, or when both are open. Or maybe it is in the evening in the U.S. when Asia is the primary active region. That processing of the data is critical and part of the reason is - Ernest talked about it - transaction costs. If you are making enough to cover the transaction costs then small improvements can make a big difference. For example, if transactions costs are 1 basis points and you are making 1.1 basis points gross then you are ending up with 0.1 basis points. If you could just make that 10% better by improving your signals, you are going to double your profit. The big part of this business, particularly when it comes to the shorter-term trading side of things, is really getting the data right.

Ernest Jaffarian

We can talk about technology sophistication; we can talk about intellectual horsepower; we can recognize that some people are just brilliant.

But the common denominator of the successful trader is really something quite different. Doug has referred to this: successful traders are disciplined. In addition, experience is critical and often undervalued, but real-time experience in many market environments is critically important.

Experience, discipline and common sense: traders who have those three things as an underlying support for everything they do will have a much greater probability of success, regardless of how technologically sophisticated or brilliant they may be.



Kevin Murphy

I would say, coming out of academics, you just really have to be willing to get your hands dirty. That is really the key thing and that is one of the things that separates this business from much of what is done in academics. It is just the detail with which you go through and make sure all the i's are dotted and t's are crossed and that you understand everything that is there. Certainly relative to academics, the biggest thing is attention to detail.



Michael Brandt: Coming back to the technology issue, it is important to differentiate between research technology and trading technology, because they are different and the resources becoming available now are different. While we have a great trading infrastructure, we focus on innovating in research technology. The rise of cloud computing has completely changed our technology landscape, where CPU power is now readily available and almost infinitely scalable. We extensively use cloud computing. It facilitates a back-testing infrastructure that 10 years ago would have required an in-house supercomputer.

Benedicte Gravrand

Doug, you mentioned that in the financial markets, opponents have moved from person versus person to algorithm versus algorithm (second generation). Can you tell us more about it?

Doug Bry

This is really about the evolution of people using computers. If you go back to the beginning of systematic trading, people were actually recording prices by hand and looking for patterns – really using just their eyes and common sense to develop trading strategies.

At the beginning of computers, calculators were computational tools that people used to improve their ability to work with numbers. When we started with PCs, it was a realm I would call first generation; this is where you could program a trading idea, you could back-test it, you could look at it and understand results and move your research along pretty quickly. For most of the history over the past 20 years or so, we have been at the first generation level where people are still driving the research process, but they are using the computer as a computational tool.

Second generation really takes it to the next level, where you are still using a computer, but you design a piece of software where the computer itself will go off and design the trading strategy.

There are a lot of pitfalls with second generation. The first is the risk of over-fitting the data. Among the second generation tools, people talk about genetic algorithms and neural networks. These tools have so many internal parameters that they could theoretically over-fit anything. From the research standpoint, the challenge is to be able to use these tools in a way where you are not over-fitting the data. If you succeed at this, the benefit is that you can find more subtle relationships across markets and different input series that are not traditionally used. You could imagine a portfolio of 50 markets with currencies, interest rates, stock indexes and energy markets. All the interactions across these markets and changing relationships over time can actually be detected and understood by some of these second generation tools. Part of the idea is that the relationships across these various input series might be missed with a simple correlation measure, but with a more sophisticated tool, you can actually detect a complex relationship that is evolving and changing over time.



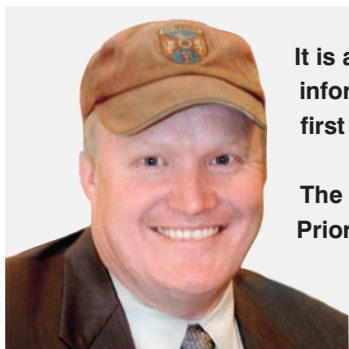
More people are using these techniques and more market behavior is actually driven by these technologies. So as you get a more complex market environment you have a mix of discretionary traders plus first generation strategies where people are using the computer as a computational tool. Now we have second generation computer designed strategies. So the market becomes more complex over time as all these strategies are deployed in the market.

Ideally, if the second generation approach has merit and if it is working, it can start to decipher what is going on in this more complex environment and take advantage of it. We talk about these things as algorithms, but I tend to think of them as robots. I think it helps to have a metaphor. We think of it as something physical because really these are robots that are doing battle with each other in the market and fighting each other for profits. So the idea is to have a robot that can try to really understand the current market environment and profit in it.

You can only imagine 20 years from now what the competition for profit is going to look like in the markets.

Kevin Murphy

We are constantly plagued by the problem of short-time series and short histories that we are trying to make inferences from. That is where some understanding and some input of what structures theory tells us should be there and what kinds of relationships you would expect to see comes in. That is where we bring in economics and macro economics.



It is another way to help you avoid over-fitting. Good statistics is a combination of prior information and information gathered from the data, and regardless of whether you are using a first generation or second generation algorithm, the value of that prior information remains.

The fact is we are always dealing with limited experience of the current market environment. Prior information comes out of an understanding of the underlying structure of markets and the way in which prices are determined. That kind of knowledge can be very helpful.

Michael Brandt

I agree with Kevin that for some models a prior that is soundly rooted in economics is critical.

The real issue for us is the timeframe over which returns are realized or the amount of data we have to evaluate ideas. Higher frequency models generate a lot of statistical feedback that allows us to evaluate them in even relatively short samples. Lower frequency models, like our fundamentals based macro models that operate over months and quarters, cannot be evaluated the same way because we simply don't have enough data. Instead, we have to rely on economic structure as well as secondary implications of this structure to gain confidence in these ideas.



Sam Gover

The more controversial aspect of the question arises when you think about what is going on at the execution level, when you think about how markets are traded these days by computer against computer. There have been a lot of stories in the press recently about unscrupulous practices by high-frequency traders, about traders trying to reverse engineer the execution algorithms of other traders and regulators are rightly becoming very interested.



Basically if you are a speculator and you want to put on a position, you have to go to the market and ask for liquidity. One thing you want to try to avoid is telling the other side exactly what you want to do – as obviously you could then be taken advantage of. But that has always been a feature of the market. Some floor traders would try to hunt for stops by pushing the price around to feel out where liquidity might be; if you dealt with a broker, they may try to guess which way you would trade in order to shade the quote. It was hoped electronic trading would level the playing field, but it has created its own set of problems. The implication is that you must be very careful in how you design your trading algorithms, so as not to be picked off by other traders. Regulators are now starting to focus on these practices, looking at people putting in buy orders when they want to sell, or placing very large orders to try to distort prices. This should be positive for the market overall, however it's a very complex system.

It will be difficult for regulators to really control it when sometimes only the person that writes an algorithm can really understand what it's trying to achieve. I fear that some regulations rushed out may have unintended consequences that will actually do that opposite of what they're trying to achieve. So it's a big challenge.

Benedicte Gravrand

Speaking of regulation, my Chicago-based colleague Mark Melin, editor of the Opalesque Futures Intelligence Report (OFI) said in his last report; "if one were to look at Mr. Corzine's MF Global adventure from the perspective of managed futures program, the intra-day leverage usage and downside diffusion of this trade were one for the industry books." What do you think of that view?

Doug Bry

Both Ernest and I are on the Board of the NFA; we were in part motivated to run for election because of MF Global and the way we felt the industry had really not responded to it as effectively as it might have.

For people that do not know the facts as we delved into them, it appears that Jon Corzine, using company capital, took a 40 to 1 leverage position in European sovereign debt. Even though he would tell you that this trade ultimately worked out, there were points while he had this position on when the market moved against him enough that he got big margin calls to keep the position on. In fact it was those margin calls that put MF Global under. There is still some controversy as to whether or not a crime was committed. From my perspective it appears a crime was committed. It is a felony under the Commodity Exchange Act to misuse customer funds. The bankruptcy was declared on a Monday morning and all the evidence at this point indicates that at least as of the Wednesday before, customer money was being used to cover the daily obligations of the firm.



Jon Corzine got away with taking too much risk because there were people all along as he kept building up his leverage in the European sovereign debt position who did not stand up to him, and this includes people on his own board as well as the regulators. It was a crazy trade and he had a reputation of taking big risks in some of his prior jobs. In this case he took a crazy risk that destroyed a firm and really destroyed the livelihoods of a lot of people; that is my take on it.



Ernest Jaffarian: The press has often criticized the use of leverage of the CTA space, which is a crazy fallacy. The CTA trading in general is very controlled, volatility is very predictable and the distribution curve is understandable.

Specifically with MF Global: I very much agree with Doug's assessment but I also think that there needs to be better education on what leverage really means, when it is being misused and when it is appropriate.

Grant Jaffarian

Internally, we are cognizant of manager risks, that there is always the potential that managers can lose money, perhaps great deal of money. But our counterparty risk is the risk that catches our attention more than any other. We know precisely where our money is segregated, when it is in cash, who we are working with, why we are working with them, what their own internal balance sheets look like; we put a lot of focus on that counterparty risk.

With regard to MF Global and other situations, when we have talked to investors recently, they talk about manager risk and of course we are delighted to talk about what we do to control it, and in the same breath we often say that what we are really worried about is the counterparty risk.

Sam Gover

This has become a feature of the industry as well, not just since MF Global, but of course with the collapse of Lehman as well. There is a much higher focus from our investors and clients on where – especially in offshore funds – the money is, which custodians you are using, whether you are using multiple prime brokers, where the cash is and what risks you are taking with it.

It probably means slightly higher costs for the industry as you have to diversify to more custodians, look for people with high credit ratings, which means you probably have to pay more for your financing. And of course regulation will increase on the back of it. So that will push up costs as well. But it is just a feature of the industry today.

Benedicte Gravrand

What are the different vehicles that would allow investors to have access to CTAs and how have those changed of late?

Grant Jaffarian: There are huge changes. In the US, the mutual fund environment has really exploded, not necessarily in terms of assets (in fact it is very small from an asset standpoint for managed futures). But there are several multi-manager products that have passive trend-following index products. Our own product is included in a mutual fund offering. The mutual fund market offers significant opportunity, we are starting to see some actively managed ETFs – there is maybe one currently active ETF in the US.

The UCITS environment is of major importance to investors in Europe as we all know, and managed futures is starting to play a more active role there. In a fund structure, there is a level of trust that is required that institutions really would prefer not to have, and so we have seen a lot of investors moving away from funds and into managed accounts. Transparency has always been our philosophy at Efficient. You want to know where your money is, with which custodian, where it is segregated, and you cannot do that in a fund structure. But the spectrum of opportunity is expanding rapidly, which is exciting.



Ernest Jaffarian

It is true that there has been an increasing number of ways to access managed futures. But there has also been a contraction. People forget that when interest rates were higher, because of the cash efficiency in the managed futures space, there was a lot of flexibility. But in this current environment it is much more difficult or even impossible to offer creative solutions like customized product structuring and principal guarantees. New product opportunities that have hit the market are going to continue to grow, but a change in the interest rate regime will result in products that existed in the past coming back to the marketplace. Then there will be an ever expanding access in the CTA space.

Sam Gover

Most of our assets have come through the managed account route, which is obviously very common within the futures industry and more so for newer managers. We have an offshore Cayman fund which has a small asset base.



We see lots of other onshore vehicles being created within Europe, but the landscape is still a little bit uncertain, rules are still changing. Quite a number of UCITS vehicles have been launched within the managed futures space and some have managed to gather assets. Others have opened and stayed open with relatively small amounts of inflow. But rules have changed recently to throw some doubt over whether they are really going to be viable in the long-term for this type of strategy. But then with all the regulation coming out of Europe, we now have the onshore funds in Ireland, Luxembourg and elsewhere to think about.

For us as a newer manager, it is hard really to know which vehicle to pick. There is a tendency to sit back and let the dust settle before we really decide where we are going to launch vehicles, because it is very expensive to launch these types of funds.

Grant Jaffarian: The two hubs are clearly New York and London. Chicago has several very good managers but not to the extent of those two other cities. But frankly the managed futures landscape has shifted from a manager perspective towards New York, which makes sense, as there is a lot of traffic there. Europe has accelerated towards managed futures a little more quickly than North America has. So it makes sense to set up shop somewhere that is closer to Europe. London in many ways is a European hub.

But managed futures are expanding beyond that right now. We for example have a manager in Japan that we are working with, and we have looked at managers in Korea, Hong Kong, mainland China, and even India. We have managers that work in Australia and Singapore, and we have visited managers in South America. We also work with managers in Canada, the West Coast, Colorado, and various other places in the United States.



The distribution is significant actually and growing, which has been exciting. And of course you can trade from anywhere, which means that we end up visiting managers anywhere.

Grant Jaffarian

No you really do not. If you are fully automated, you can set up your software at the exchange level so the signals are actually generated there. If you are remote, even there the frequency with which you can get data and get signals is on a millisecond level. Technology has come a long way in that regard.

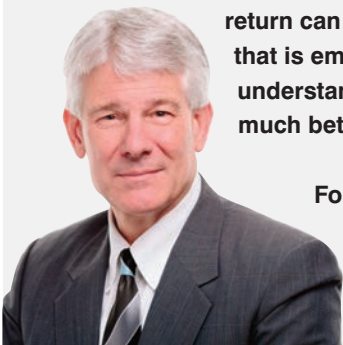
Ernest Jaffarian

Managed futures is truly a worldwide business. I do not think there is any question about that. Its presence is growing and expanding at a rapid pace.

Ernest Jaffarian

There have been a number of academic articles over the last few years focused on price momentum and using it to analyze sources of return from various types of investments. What is interesting is that this can be utilized to analyze the factor sources of return from various types of investments.

Price momentum can be measured with very simple and clear momentum models - and that has a strong explanatory factor relative to the managed futures industry. Arguably, depending on what you are looking at, 50% to 70% of the return can be accounted for by a momentum factor. And this momentum factor is based on something that is empirical, that shows people are not completely logical and rational, that can help people understand the source of return for many managed futures traders. And this helps investors have a much better idea of how managed futures fits into their overall asset allocation model.



For years academics have written about the benefits of managed futures in institutional portfolios, without describing the actual sources of return. This simple concept of momentum can strengthen the academic's arguments by providing a better understanding of the sources of return.

Doug Bry: I would add that academics are way behind on this. There is a famous quote from the 1920s; somebody asked Bernard Baruch what he thought the markets were going to do. He said they are going to fluctuate. Really, that is the basis for momentum; that is the basis for CTAs and a lot of trading strategies.



It is strange to me that people needed an academic foundation in order to call what we do an asset class, but I am glad that the work is being done and it is out there now.

Michael Brandt

It is actually quite shocking how little academic work there was on managed futures, commodities, and price based momentum models until very recently, really 2008. There is now a growing literature involving some top-notch academics.

Benedicte Gravrand

Talking of research, Michael, could you tell us a little bit about your current research on now-casting?



Michael Brandt: Nowcasting refers to the real-time processing of macroeconomic data. In contrast to relatively timely and clean market data, which we use for our shorter-term technical models, the economic data that is fed into our longer term macro models is notoriously messy and difficult to handle. Data is delayed, overlapping, staggered over the month, restated, and in some cases even erroneously recorded by Bloomberg or Reuters. We have developed technology to optimally filter information from this messy data to form a best point-in-time prediction of the current levels of key economic factors, such as output, inflation, and sentiment. We implement this process for all developed countries and then use the resulting factor forecast as inputs to our global macro models.

Benedicte Gravrand

How do CTAs handle volatility? You already touched on that but I would like us to expand. Maybe Sam could talk to us about it?

Sam Gover

You can look at it from a number of perspectives. In the extreme case you are worried about shocks in markets which are by definition unexpectedly large. It is more significant in the CTA industry where you are holding a relatively small portfolio of instruments. Even if you have 50 plus markets which are fairly liquid, many of them are correlated, so you are actually holding a fairly small portfolio of global risks.

But by definition you cannot do anything about unexpected shocks because you do not know when they are going to arrive. All you can do really is try to make sure that your portfolio is as diversified as possible so that when they do hit, they do not have an outsized effect on the portfolio. Even if you trade a relatively small number of instruments, you can still try to do that, by limiting position sizes, by keeping the portfolio balanced across instruments.

From a short-term trader's perspective, it is very helpful that we have a lot of different types of model within the portfolio, which means we generally have some forecast for everything we are looking at all the time, so we can take a position in almost everything all the time, obviously varying the sizes but you end up with a reasonably well balanced portfolio.

Other than that, in dealing with normal rises and falls in volatility, you have to generally



declare a risk target to investors; they want to know roughly what risk they are expecting within the portfolio. We run our fund for example with a target of around 12-15% annualized volatility. And we try to target that by varying the portfolio based on our estimate of where volatility is going to be.

Sam Gover

We do that in a number of ways; by looking at say short term market vol versus long term market vol, trying to estimate where we think it is today. This estimate is then built into the portfolio, and we then monitor where the actual portfolio volatility appears to be, against where the risk model says it should be. We can use any deviations to try to spot when the risk model might be breaking down. Again being a short-term trader is useful here, as it means we can measure these things with higher frequency data and hopefully get better estimates.



Kevin Murphy: Volatility is a very important input in three different ways. For our model, volatility is a signal in itself; changes in volatility are primary drivers of changes in asset prices generally. So it is a predictor.

Secondly, volatility is important for changing the relationship between other variables, the relationship between some of the other predictor variables and the expected returns on various assets change with volatility. So volatility is important as a conditioning variable for the structure of the model.

And number three, volatility comes into your risk management and as was just mentioned, we combine implied volatility with our estimates of historical volatility.

In our portfolio we trade a very limited number of assets so risk management is a critical element. We spend a lot of effort on exactly how we measure the level of volatility for our assets and use that to help control volatility. Volatility is key driver and in today's environment it is an extremely important driver of prices.

Ernest Jaffarian

One of the great things about the CTA space is the diversity. There is diversity on every level: diversity of personalities, diversity of approaches, diversity of instruments traded. As Grant said, you see the full range, from people that are highly technology-driven to people that are actually still in their heart, discretionary managers. You see an amazing range of response to the volatility question.

The managers at this table would probably be somewhat similar in their approach to trading volatility, but there are managers who approach it differently. For instance, I am thinking of a short-term manager, with average trades between one and three days who would say, "I do not change my positions, because my model says that the more volatility, the better my return expectation. So I want to have bigger size when there is higher volatility, and an easy way to do that is to keep a constant size."



If you talked to a hundred managers, you would find a full range of responses. The one thing that would be consistent is they are all very cognizant of and concerned about volatility and they trade appropriately within volatility. But how that is approached would be very different.



Doug Bry: We have spent many years researching different ways to measure and quantify volatility. We find that markets go through expansions and contractions in volatility in different time frames. In fact a lot of our trading signals are generated from keying off expansions and contractions in volatility. The way we measure volatility has a directional component. The idea is, if you get in at a low point in volatility, you are often likely to see an expansion in volatility follow, and that can drive the profits from a strategy.

Doug Bry

The other thing we have found, and this applies to a lot of our research, is that when markets get above a certain level of volatility, we will stop taking new trades. We will stay with an open position but it is much harder and riskier to enter the market when the volatility is high. Our basic approach is, do not take new trades when the markets are riskier.

Michael Brandt: One issue with volatility is actually the volatility of volatility, meaning the rate at which the volatility of a market can change suddenly. We observe that the volatility of volatility is quite different across sectors and can itself also change over time.



Currencies and commodities, for example, stand out as sectors that are much harder to manage risk for because the volatility of volatility is so much higher there. You need to rely on much faster risk models and techniques that exploit high frequency data to measure and manage risk in these sectors effectively.

Grant Jaffarian

Volatility affects us in a way similar to what Kevin was speaking of; it can take multiple roles. For example, it is very difficult in the allocation process to isolate volatility as a risk factor alone. If you want to allocate based on risk, how you define that risk in effect becomes an allocation in itself. If you are aggressive in how you assign risk, you may penalize managers perhaps unjustly, or vice-versa.



Isolating the volatility influence into purely risk management or purely allocation is not quite adequate. And yet at the same time you want to isolate and try to understand whether are not you are benefiting from a risk standpoint or an allocation perspective. So it is a very useful exercise from an allocation perspective as well, in that sense.

Benedicte Gravrand

Now the audience would like to put some questions forward.

Audience

I have a question on MF Global. When customer money is with prime brokers, why does the exchange do nothing to ensure that things like that do not happen?

Ernest Jaffarian

I am of the opinion that there was nothing really wrong on the regulatory front. The problem is that there was criminal activity. You can have a lock-box at the bank and you can go put your gold coins in that box and lock it up. But if an executive of the bank has access to that box and goes and takes your gold coins, you do not say all the banking regulations have failed. No, there was theft, criminal activity.

What is so distressing to many of us in the industry is that this was something about which we really did not need to be concerned. The regulations are in place, the rules regarding segregated funds are clear, we know what is criminal. What can be done and what cannot be done was clearly defined. As Grant pointed out, now we have to take steps that are extraordinary. You cannot solve the problem with regulations. We have to take a further step to be certain that investors are safe.

Audience

If it had happened to the bank, there is insurance and the bank does not lose money. So why is it not something similarly done at the exchange level?

Doug Bry

I would like to add a little bit first to what Ernest mentioned. The regulatory structure in the futures industry is that every FCM, futures broker, has what is called a DSRO, a Designated Self Regulatory Organization, which is the auditor responsible for making sure that the money is safe.

Doug Bry: In the case of MF Global, the DSRO was CME Group, a huge exchange clearing organization. And in the days preceding the bankruptcy, the CME Group was in constant contact with MF Global, trying to make sure that customer money was safe. With hindsight, they clearly should have gone further; they had the power to go in, shut things down or take over the operations. As Ernest indicated, we think it was theft and we ended up in a situation where Terry Duffy, the chairman of CME Group, testified before Congress that he felt he was lied to during the few days before the bankruptcy.



In terms of insurance, that is a proposal that people are considering. While I don't have all the numbers, it may be too big a risk to insure since the amount of money you would have to charge per transaction would not be acceptable to almost any market player.

Audience

So what have changed in the specs?

Doug Bry

A few things have changed, and I think the changes are good. You could call them changes on paper.



We are at the point now where NFA and all the organizations responsible are going to be able to monitor the customer accounts pretty much in real time. The NFA is going to have a website where customers can check and see what the customer balances are, and where the customer money is invested. All these things are in process, there will be online verification of balances and other features.

However, improving what's on paper is not enough - in the end it is going to take people who are willing to look outside what they are shown and question things.

We have not mentioned the Peregrine situation; this is another fraud where \$200 million of customer money appears to have disappeared. And this fraud went on for many years during which the NFA was apparently fed false bank statements that they believed and never independently checked or verified. While we don't have all the facts yet, it appears that if people had been a little more diligent, a little more skeptical, they could have prevented the fraud or detected it sooner. In the end, it is going to take people who really question and are more aggressive in making sure the customer money is safe.

Ernest Jaffarian

Insurance often is not what it seems. One big problem with insurance in the futures industry is simple fairness: even if you required a certain amount of insurance per contract, the high frequency traders who trade millions and millions of contracts, and really don't need or want the insurance, would be the ones' footing the bill for the entire industry. But even then, the second problem is that there would be limits of protection. It does not seem that insurance is going to be a practical solution.

A practical solution is to make sure that the regulations are upheld. As Doug said, transparency can lead to insight to make sure that that happens.

Doug Bry

In the wake of these two events, MF Global and Peregrine Financial Group, the NFA did check every FCM and every customer account to make sure the funds were there and secure. And as of this check having been performed in the past few months, there are no other undetected frauds out there. So I think at least for the time being we can have some confidence that there is not going to be any more bad news and that people will hopefully be more diligent going forward.

In the Peregrine situation, an outside consultant has been retained to fully investigate the case. The report which is supposed to be made available to the public should be submitted by the middle of November.

Audience Kevin, why is it that currency trading has been so difficult and has had so low returns over the last few years?

Kevin Murphy: It is about the changing frequency in which things have been taking place. We have always felt that there was a mixture of momentum and, for lack of a better term, mean reversion. The market overreacts in some cases and under-reacts in others.

What happened is, the mixture of those two things changed a lot as governments got more involved. Areas where we traditionally saw under-reaction and therefore momentum take place, have switched. Even some places where we used to see mean reversion have switched as well.



It really was that change in the mixture of signals. There are forces that tend to generate momentum and forces that tend to generate mean reversion and there was a constant battle between the two of them to determine what ultimately showed up in the prices. As the mixture of those two forces change, you are going to switch from one to the other. This gets to what I talked about earlier; you have to disaggregate a little further so that you do not just rely on simply mean reversion or momentum. You must really understand each of the two fundamental components which can be much more stable; that is the effort we are engaged in currently and other people are as well.

I think that is really the question; it was a change in the drivers that really changed the degree to which and the timeframe over which momentum carries itself out.

Audience It would appear that in the emerging market currencies there are more opportunities, probably also more risks. Would you say that on a risk adjusted basis, the opportunity is higher (compared to other currencies) or does it vary?

Kevin Murphy

We see it as a big advantage because we currently trade around nine assets, but if you really look at it is not really nine assets because there is a lot of correlation among them. We can pick up fair amount of independence that comes in with the emerging markets, so it is not even so much a risk/reward, but it is a diversification benefit that we get from getting into the emerging markets. If you took a measure, the risk/reward is probably better there, so this is one of the reasons we want to move there as well.

The other reason is we are finding there is a lot of commonality in terms of the structures. The structure we have estimated for the major currencies carries over with a few adjustments that you know upfront are needed to be made. The emerging currencies differ in projectable ways from the existing currencies that we trade, but I have actually been surprised at how much of the structure actually carries over. That is always reassuring when you look at models, to see a model that operates and performs well for one group of assets, carries over well to the other ones. We have found that they fit very well into that framework, which is why we are hoping to expand in that direction.

Audience Can I get a comment from the panel about the future of the Euro as a currency? I think it will not survive in the long-term, but the question is how long?

Kevin Murphy

Three to five year period.

Ernest Jaffarian

I think it is a coin toss. There is a substantial chance that not all countries will continue to use the Euro. That is my current feeling at the moment.

Kevin Murphy: If you mean, survive as a currency, who knows. There are certainly some issues that might cause some of the current countries in the Euro zone to leave the currency. Greece is the most obvious example. I saw George Will put up a chart showing the amount of time over the past 200 years that various countries have been in default or restructuring; Greece was at the top of the list and his numbers indicated that for half of the past 200 years Greece has been either in default or restructuring. I think people miss the historical perspective that the sorts of things that are happening today have happened throughout financial history.



There is a credit crisis and the problem with the Euro is that Greece cannot devalue. Until they devalue they really will have a very hard time competing or dealing with any of their economic problems. That is what is causing the more wealthy countries, the so-called Northern European countries, to have to come to their rescue. But the fundamental problem is, they cannot control their own fate and ultimately the answer for Greece, like Iceland, is to default. The bond holders may have to suffer. Then Greece can start with a clean slate and a cheaper currency.

This kind of default would be very different since Greece is in the Euro, but the same basic thing would happen; they would default on their bonds and debts and re-establish the drachma.

Audience With regards to blogs and social media on the internet, what are view on potential research in this area?

Doug Bry We have not done that yet, but I think it is fertile ground; it would have to be explored.

Michael Brandt: We are constantly on the lookout for new and interesting data sets, particularly as it pertains to sentiment. The challenge for us is to get our hands on long enough and reliable enough historical samples to be able to rigorously back-test models with that data. Take something that has a year worth of data like social media feeds. If the data is daily or even hourly, that is not enough for our research process. So for now we are just collecting and storing as much data as we can get our hands on.



Kevin Murphy There is tremendous potential there. You look at the behavior of individuals and they often seem to possess collectively a lot of information that professional forecasters, economists and other people do not have.



So as we get a history with that type of data and those types of data become more available, that is going to become a key component of many forecasting models. Michael talked about now-casting, an alternative method of forecasting the weather; it is looking at how many people are taking umbrellas to work on a given day and that might turn out be better than all the consensus forecasts out there.

It just seems to me that it is inevitable; they are going to get there. Now people are going to charge for that too, because there is going to be a whole industry out there of people gathering data and providing it. It seems to me it is going to be a great source of information, because economics is fundamentally about what people do and those data really measure the people. That is the key ingredient in all outcomes.

Ernest Jaffarian I know quite a number of proprietary trading firms that are trading for their own account. Those firms have systems built in that monitor all sorts of electronic data sources. They typically monitor

for key words and the models are designed to respond. This can add value, both from a risk standpoint, but also from an opportunity standpoint.

This will be a growing area of research.

Audience

What if there were a real shock to the Euro?

Kevin Murphy

It will be a tremendous opportunity for the currency traders; you would have a lot more assets that you could trade. The ex-post world would really be very beneficial from a trading standpoint. It would also be good for a lot of the countries, particularly countries like Greece and other countries that really need to do some reevaluation in order to help their prospects. While they could default under the current regime, that does not necessarily generate the reevaluation that they really need, which is one of the reasons why there should be a substantial incentive for them to move out.

When I talked about a break up of the Euro, what I mean by a breakup is any significant change in its constituency, not necessarily a complete disintegration, because there is a number of countries that very well could stay together.

Audience

So you can have a strong Euro, a new Euro? How would that play out in the existing contracts?

Kevin Murphy: If we are talking about a formal strong-Euro versus weak Euro split it could well be announced in advance and that announcement would be the event. An individual country dropping out would likely be very different. In either case there will be a quick shift in prices when the program is announced even if that announcement is coincident with the change. The details of how that program would look and who would remain in the Euro would determine how prices would move on that day. That is one of the risks you have. It is not just whether the Euro breaks up, but what is the process by which it breaks up, because different processes would generate different results.



Doug Bry

I have a different view from Kevin. I do not think there would be any forewarning. In fact the countries that are going to leave the Euro would want to keep that secret up until the last minute. From what I have read, certain countries have contingency plans. The approach they would take is: wait until the close of business on Friday, announce the fact that they are leaving the Euro.

They'd presumably have vaults full of new currency that they would issue and would scramble over the weekend to deal with handling the balances and the deposits, and come Monday morning, that country would be out of the Euro.

Audience

So how about Christmas?

Doug Bry

Do it over Christmas, yes.

Audience

So how would you model that in a quant way?

Doug Bry

There might be some anticipation in the markets so that as the Friday approaches, maybe some people know or forecast what is happening and there is enough of a price movement ahead of time to give you a trading signal. Other than that, you are just going to be caught on the wrong or

right side of it. If you have a good risk model, you are never going to really get above a certain level of exposure and it will be like any other situation where there is a gap against you and your model reacts to it.

Audience

Do you think that there is any limit to short-term trading or would it literally continue to the shortest possible timeframe?

Ernest Jaffarian: I have a fairly strong view on this, particularly on what I call “ultra high frequency trading”, trading that is measured in seconds.

This is a sector of the CTA space where it is difficult to know your competition. Big investment firms as well as large proprietary trading companies are in that space, and the people that are really good at it are not going to manage outside money.

The ability to manage money for others and compete with the proprietary firms is very limited, I believe.



Audience

Many institutional investors do not have a strong quant background, and tend to think of systematic strategies as black-boxes. How do you make investors comfortable with the concept of CTAs?

Michael Brandt

We do not consider ourselves a black box and are very clear with potential investors that we are not. Our models are based on economic principles that we are more than happy to identify and discuss. To us, “quant” is simply a tool for making decisions based on rigorous scientific evidence and for systematic implementation. At the end of the day, in our portfolio at least, every model originates with any idea, and that idea is easy to communicate and, more importantly, we are happy to do so.

Sam Gover: Black box is often a short-hand for saying: “well, we do not really understand what you do and so we are not going to invest.” That was certainly the case 10 or 15 years ago, when most early investors into quant strategies were other quant traders. But as the industry has matured, investors have got a better understanding of what sort of approaches people use. Many investors we meet today understand the strategy very well and they talk to many managers in the space. They compare and contrast how different managers are running their strategies. They can see the common elements and it does not take long before they start to understand which are the right approaches for doing things and which are the wrong approaches.



So it is not that they have to look at every line of code in your algorithms or the mathematics underlying it, but they like to get an understanding that you know what you are doing and you approach things in the right way. This reassures them and has made the so-called black box a little bit more transparent today than it used to be.

Ernest Jaffarian: The black box question is analogous to the leverage question. It is often just misunderstanding. For instance, suppose you talk to a fundamental and discretionary manager and he spends an afternoon explaining why he believes he should be long in the Euro; and then you discover the next day that he took a short position in the Euro. When you ask him about it he says, “There was some new information, I have changed my view.” That’s a gray box, to my thinking. In some ways, I can be a lot more comfortable with a black box than a gray box. So it really is a lot about perception. People want to know the fundamental source of return that you are seeking to capture and how you are going about that.



Audience

Ernest, you had mentioned something about an index in your introduction. Can you just tell us briefly a little more about that and what some of the CTAs think about the opportunities if they look out two years in indexation coming to the managed futures industry?

Ernest Jaffarian

First, I believe there has been a fundamental shift in how investors are thinking about CTA investments since 2008. Investors are looking at CTA investments as a strategic part of portfolio asset allocation. I think that is only going to gain momentum in the future. Second, I'm seeing a growing trend among large institutions that are interested in capturing the core return of various asset classes. Mechanical systems are becoming very attractive for many strategies – but CTA managers are unique in still having an edge as active managers over a mechanical systems approach.



So, the idea of having an index in the managed futures space that is actively managed and will capture the core returns of the industry, as opposed to a mechanical system, is a powerful idea. It will allow institutional investors the opportunity to access managed futures and find whatever capacity is needed, at a very low cost.

It is composed of active management to capture the core returns of the industry as opposed to a mechanical system is going to provide institutional investors much more of an opportunity to access the space with the realization that there is capacity available. I think it is an idea whose time has come and will grow significantly in the years to come.

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