Don’t fear volatility, invest in it

From Alan Kohler - June 20, 2017

- **When the market goes down, volatility goes up**
- **An investment in volatility can offset losses on long investments**
- **Volatility has not gone forever, Simon believes it will come back aggressively**

While most investors see volatility purely as risk, Simon Ho and the team at Triple 3 see it as an opportunity – a big opportunity!

In addition to investing in options to capitalise on volatility, they’re investing in the S&P 500 Volatility Index itself. It’s not just different rules, it’s a different dimension.

Triple 3 have a team of quantitative analysts with PhDs in physics and maths. In fact, one of them represented Russia in the Russian Maths Olympiad team.

Simon Ho tells James Brandis that he discovered options while working in Target at uni and that's all he's been interested in ever since.

Simon, can we start with a couple of definitions before we get into what you do? Can you explain what volatility is and how it becomes an investment?

Certainly. Up until about 10 years ago, it was actually quite difficult for it to be an investment. Volatility is essentially the variance or the distribution of returns. This sounds a little bit esoteric no doubt, but the fact is this can actually be traded nowadays, as most things can. One of the most obvious benchmarks for this is an index known as the VIX index. It stands for volatility index, and what this is, is an index of the expected volatility on the S&P 500 Index in the United States. This is derived from option prices, index options on the S&P 500 Index and they're used to determine how much movement the market expects in the index over the coming month.

To trade in volatility are you buying or selling options in a share at a price that you expect to be different when the option is called? Is that it?

Yes. That is essentially what we do. Now, we actually take it one step further. Rather than just trading the index options – so let's just say for example the S&P 500, you can buy a put option or buy a call option. You can buy and sell these, like you can for any other security, based on relative value expectations. If we think that one of those options looks particularly cheap, then we might go and buy that, and conversely, we would sell. One of the things that we engage in is actually trading VIX options. Now, this is quite esoteric for people who probably aren't used to this particular space, but what a VIX option is, is an option on the actual volatility.

Whereas, in the sense that we talked about before, an S&P option has an implied volatility, but that's a directional bit. This is a movement in the spot price of the index, the underlying S&P 500. Whereas, the VIX is actually options and futures on volatility itself, and hence that's how come we can arrive at the concept of trading volatility as an asset.

On your website, I think the very first line is, "Most investors view it as risk," but you've got a process to make it a less risky option. When you explain it to people, do they often just consider it gambling?

[Laughs] No, we hope that we after we've finished speaking with them, that isn't the case, certainly. I guess a lot of people who are not familiar with it might at this point in the conversation be wondering, "Why the heck is he involved in this?" There's a very obvious reason and one that is actually quite compelling for a normal investor, a standard investor. Essentially, volatility moves in the opposite direction to the stock market. Typically, when markets go down, they tend to go down more quickly than they will rise. When your market goes down, people become fearful. Everybody in the world mostly, are long of equities, and so when they go down, people tend to panic.

There's a very strong relationship between the direction of the movement in stock markets and the level of implied volatility or fear as they like to refer to it. There's more fear when the market goes down than when the market goes up. Now, if you can trade that, that is an excellent thing to put into a standard portfolio that has a lot of equity beta. Because it moves in the opposite direction. It's what we call a "causally negatively correlated asset," [which] means that it moves in the opposite direction to stocks. Now, if you can put some of that into your portfolio, then that will help to inoculate your portfolio against losses when markets fall.

Do any of the usual investing rules, such as understanding the company, management and industry come into your process? Or, are you playing with a different set of rules entirely?

Yeah. We're playing in a different dimension, if you like. We're not looking at fundamental values in the stocks, not at all. What we're doing is we're analysing volatility and we're saying, "Well, what is priced into the market now? Is that a fair representation of how volatile we estimate the underlying index to be over the coming period?" If you like, we have to specialise in forecasting. It's not very different actually to weather forecasting or prediction of earthquakes. We predict levels of volatility – let's go back to the original example, we're looking at S&P index options. We will look at those and say, "Well, there's a fair bit of action going on in the market," statistically let's call it "perturbations" in the market and, we expect, our forecasts tell us that it's not sunny skies for the future, but rather essentially, rain clouds are coming.

We will then determine what options we can buy and sell on the basis of that forecast to profit from that. It's kind of a different realm or different dimension than taking a position in an individual company.

What sort of tools do you use to do that forecasting?

This is a business that is highly mathematical and it's very sophisticated. Our team here at Triple 3 is comprised mainly of quantitative strategists, so people who have PhDs in physics and mathematics. In fact, one of our colleagues has represented Russia in the Russian Maths Olympiad team. You need people with that kind of skillset to be able to develop models that can forecast anything, frankly, and that's certainly the case with volatility.

Are there key indicators of volatility that you look for? If you wake up one day, is it a tweet from President Trump that puts a smile on your face? What are the key indicators?

Well, when it comes to volatility forecasting, typically it's a very numerically based exercise. We wouldn't tend to look at things like Donald Trump's tweets, although they happen to be fairly good for volatility. It's very, very hard to determine what impact a particular tweet might have. Typically, what is done – the standard approaches include analysing the variability in the time series. If we look at the closing price for an index or for a stock, for example, on a daily basis, we can work out what's called the "realised vol," how volatile has the thing actually been over the last one month, two months, or whatever the period?

Now, we take that data and analyse that and typically that's independent of any fundamental stuff, and certainly independent of Donald Trump's tweets.

You've got three areas of your business. Can you give us a quick summary of what they are?

Sure. Because we dedicate ourselves solely to volatility, it opens up quite a number of opportunities for us, so we sell volatility research to large investment banks and large global hedge funds who are professional volatility traders. For those people, that's very useful information. We can give them a forecast distribution of what we think volatility will be like in a coming period. The second thing that we do is we run funds for Australians, as well as foreign investors, and we have a couple of approaches. One of them, I mentioned earlier the VIX index, the volatility index is a very handy tool to have in your portfolio if you have a long equity exposure, because it moves in the opposite direction.

We actually have a fund called the "volatility advantage fund," which we partner with Grant Samuel on here locally, and that tries to achieve those aims. It tries to generate most of its alpha when markets are going down. It tries to limit the drag when markets are going up, and it also has what's called a "deterministic loss function," meaning that there's only a certain amount that could be ever lost under any scenario in any given month, because a lot of people are typically wary of options trading. We put that failsafe in place to give people the comfort that they can sleep at night, knowing that there is a fixed potential maximum loss with this particular strategy.

We also provide what's called "volatility overlay services," and this is more for institutional clients like superfunds and so on. These are people who are long equities and they want us to provide an overlay that mitigates the draw downs in the most cost effective manner. The third line of business that we're in is a subsidiary called "T3 Index" and the remit here is we want to become the preeminent player in the development of options and volatility based indices and benchmarks. We have had a fair bit of success in that in the last few years, with people like the New York Stock Exchange, a very large futures exchange in the US, and so on.

Where can you trade in volatility? Is it just in the US market?

There was a proliferation of volatility indices around the world once the VIX established itself. However, to be honest, really the only index that has really attracted the attention of the world has been the S&P 500. One of the reasons for this is that equity volatility in particular tends to be highly correlated to one another. There is a contract here in Australia, for example, there is one in Europe, one on the Hong Kong exchange, but the issue here is that typically when markets go down, they go down together. People assume the basis risk that you might assume by protecting an Aussie portfolio with US volatility, because of liquidity that comes with that, and because at times when markets go down, the indices and the volatility of those indices tend to be very highly correlated.

And Triple 3 was established in 2009, which must have been around the height or the depths of the GFC. Was that a good time to be in volatility?

[Laughs] Absolutely, yes. For a firm like ours, we prosper from volatility and that's not to say we are merchants of doom. I mean, we're not always short the market. It's not the way it works, but the point is when markets are volatile, it creates lots of opportunities for everybody. The last three years has been particularly tough with quantitative easing, because essentially nobody believes markets are going down. And every time volatility has a minor spike, it gets whacked down by people who are looking to sell it. It's been very challenging, but the period that you're talking about, 2009 and again, in 2011, those are exceptionally good periods for a company like ours that specialises in trying to take advantage of volatility.

Alan Kohler's been watching the VIX index, usually as an indication of fear in the market, but he's commented a couple of times that since Trump came in and the effects of Brexit and I guess the other European elections recently, there just hasn't been that much volatility in the market (https://theconstantinvestor.com/alan-kohlers-overview-22102016/?hilite=%22volatility%22#Volatility) **that you might have expected. Has it been a difficult time recently for volatility?**

Oh yes it has. The last year and a half has been exasperatingly difficult for people like ourselves. As I mentioned in the earlier comment, quantitative easing is mostly to blame for that, because basically money is free, people are searching for yield because yields have come down, as bond prices have gone down and there's no inflation. One of the areas that it has manifested itself has been in trading of volatility exchange traded funds. Many of your listeners and your readers may not know, but there are more than 24 exchange traded products, exchange traded funds, exchanged traded notes et cetera, listed in the US that track the VIX. What happens is it gives retail people a great opportunity to invest in volatility in a very easy way.

One of the most popular things to do recently has been to sell volatility as soon as it spikes, because it can make a tremendous amount. To give you an example, the futures curve for VIX is highly upward sloping. It looks a bit like a normal interest rate curve, so the longer the maturity, the higher the level of vol. What that means is, if you are prepared to take the risk that volatility blows up, then what you can do is you can actually earn a lot of carry for that. What that means is that you'll sell say the two month contract, and as time passes, it rolls down to the one month contract which is lower than the two month contract.

If volatility doesn't spike greatly, you can actually make quite a lot of money. In fact, we're talking ridiculous amounts of carry. In a single month, it's not uncommon for the VIX futures to offer as much as 15% carry in a single month. That's a very, very good return, very handsome return, and it's very alluring for a lot of people. That's also been exacerbating the low levels of volatility, because every time something happens, a lot of people are happy to get in and go short volatility, because they want to earn that carry.

At this point in the interview, I often ask our asset managers if they can tell us about some of the companies they're invested in, which I don't think you can do, but can you give us a forecast of volatility? What are you looking forward to?

Well, I'm not going to use my models in this case, because our models typically train the forecasts and our sights are set much shorter term. But I think that one thing is clear and that is that as rates normalise, as inflation starts coming back, we have a plethora of other risks that exist in the market. Volatility has not gone forever, this is not a new paradigm, and at some point it will come back, and it will come back aggressively. We're biding our time but the point is that the longer this goes on, the more of a disruption it is going to be when it finally happens. That's our opinion.

I mean, we have so many things to consider, whether it's geopolitical, whether it's the state of the Chinese economy and the debt that they're accumulating, when the Bundesbank wants to think about unwinding the quantitative easing program. There's a lot of potential catalysts out there to cause mayhem, and we certainly think that volatility is not dead. It is just hibernating.

Now, how should we position volatility in our portfolio? You mentioned that it's great to have in there as a hedge, really. What portion of a balanced portfolio should we think about volatility?

I think realistically 10-12% is an allocation that can have meaningful implications, positively speaking, for your portfolio. Of course, it won't mitigate downside completely, but it'll have enough of an impact that you'll say, "Well, that'll be worth it." That's what our analysis reveals.

Yeah, it sounds like a nice buffer to have.

Simon, tell us a bit about yourself. Where did your investing career begin?

Funnily enough, I started trading options when I was at university and I had a part time job at Target. I remember that I had a stockbroker back in those days. There was no electronic trading platforms, and I used to go into the back of the pottery section and trade options on Westpac and ANZ and stuff. I really got a taste for it before I left university, and it's the only thing I've done since and the only thing I want to do until I stop stuff.

Wow. That sounds like an unusual place to start with options. How did you get bitten by the options bug?

I'm very passionate about options. I think they're so interesting because there's a whole other dimension. This is an asset that changes through time and changes on the basis of the level of the actual underlying asset itself. It's so intriguing to me and it's always been the case. I've worked for many of the investment banks in Singapore during the Asian crisis, doing exotic derivatives in New York, and also been the Senior Trader at Goldman Sachs in London for a number of years on the FX Options Desk. I don't know, I was just bitten by the bug early and started, as I said, whilst I was working at Target.

I don't know. I was doing economics at university, so I got introduced to the concept, and I discovered the old Australian options market that was in Bond Street at that time. I was very much taken by that whole open outcry, and people yelling and screaming. Options in particular were just so fascinating to me, because as I said, it's got this extra dimension that you can play with, that you can't get by trading something like a stock. Yeah, I just discovered it from there and then developed a passion for it.

Have you got a favourite book on volatility or options that you recommend to others to get a better understanding of this environment?

The first one I ever got was actually a publication that I bought at the Australian Stock Exchange, called I think it was, "Option Basics" or something like that. You can't go to bed reading an options book typically. It's not that kind of a book. But I would encourage anybody who is interested in financial markets to take a close look at options because they are such a fascinating product and these days, I mean, as I said, volatility as an asset class through VIX is one of the most popularly traded derivatives on the face of the planet. Obviously, when I first started out in my career, trading options was a bit of an oddity, specialisation. Whereas these days, it's front and centre to the conversation that people have around the world in financial markets every single day.

What's your daily reading list? What are you looking at to keep on top of the volatility?

There are a number of websites that we track. Obviously a lot of banks publish information about the VIX as well, so we get those, but a fascinating website that we look at and often addresses the issue of volatility is called Zero Hedge (http://www.zerohedge.com/) . That's a very interesting read, and I would say that mostly we read publications from firms that actually are involved in it, so that would be bank reports, obviously that's not available to everybody, but typically in the mass media there's usually a story or two on volatility as well.

We also subscribe to a free journal called the "JLN Journal (http://www.johnlothiannews.com/c/topics/john-lothian-newsletter/) ." It's an options focused thing. Anybody can subscribe to that, and it's got all of the options and volatility related news that happened over the last 24 hours. That's actually quite a good summary of the market in general.

What do you do in your spare time, Simon? Is it adventure sports like skydiving or are you more risk averse after watching the VIX all week?

Actually, my favourite sport is swimming, so I've done that since I was small and I find that it's easiest, my go-to. A thing when I want to relax. It's the only time I find during the day that I can actually clear my mind of anything, options and markets related, to be honest, so that's what I like to do.

June 24th, 2017 : Blockchain + AI, Inflation + Tech + Bonds, SA Bank Tax and US$ Earners

(https://theconstantinvestor.com/blockchain-ai-inflation-tech-bonds-sa-bank-tax-us-earners/)

June 17th, 2017 : Aus jobs, US inflation, Grant's view, 2 x MacKenzie, Finkel & Amazon's new stores

(https://theconstantinvestor.com/aus-jobs-us-inflation-grants-view-2-x-mackenzie-finkel-amazons-new-stores/) June 10th, 2017 : Finkel May Comey, Productivity Paradox, Alibaba, BHP, Remembering 2008 & Banks

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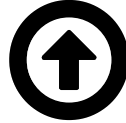

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