

## So Many Options

# Learning The Ropes With Stan Freifeld

*Stan Freifeld traded options on the floor of the American Stock Exchange for his own account from 1994–2001. He was a market maker for options on several popular equities including Dupont, Schering Plough, Walgreen's, CBS, US Surgical, and Biovail. He graduated from the State University of New York at Stony Brook as a double major in pure and applied mathematics. As managing director of McMillan Analysis Corporate Services Division, he now teaches option trading and risk management to students ranging from complete novices to advanced professionals and academics. In his spare time, he plays squash to relieve stress, competes in road rallies with his Ferrari Cabriolet, and tutors local students for the SATs. He is a long-time MENSA member.*

*STOCKS & COMMODITIES Editor Jayanthi Gopalakrishnan spoke with Freifeld on December 6, 2013 about what it was like on the trading floor, what the greek variables are all about, how implied volatility figures into option trading, and how he approaches option trading today.*

**Stan, how did you get interested in trading and what attracted you to trading options?**

I've always been interested in math and was pretty good at it. I was an actuary and ended up becoming a principal of a pension consulting company. I liked being an actuary, but I was working long days and sometimes on weekends. I felt like I was spending too much of my time working and not enough time enjoying life and being with my family. I was fortunate in that we were able to sell the consulting company to a British firm that was anxious to get into the US pension market, so they overpaid us a little bit. Because of that, I didn't have to work right away. I had time to figure out what I wanted to do next.

I knew very little about trading but I wondered what it would be like to be a floor trader. It seemed like being a floor trader meant that I didn't have to work long hours, since the market is only open from 9:30 am till 4:00 pm. You couldn't come in early, and you couldn't stay late. You don't have to work on the weekends and you are off every holiday. If I traded with my own money and could make a living doing it, I wouldn't even have a

boss. I wanted to be a trader!

I had to figure out what kind of trading I wanted to do. Since I was a mathematician, the idea of having the added dimensions of volatility and time, the different rates of change, and how the price of an option changes when one of its defining variables changes really appealed to me. I decided I wanted to go into trading options.

**What happened after you made the decision to trade options?**

I didn't know any traders. So I went down to the floor of the American Stock Exchange (AMEX) and found the membership office and said, "I'd like to be a trader here" and they laughed and said, "Sure, like everyone else who comes by. Who's your clearing firm?" and I said, "Clearing firm? What's a clearing firm? Do I need one of those?" and they said, "Yeah, you need one." They said, "Okay, you can get a clearing firm but who is your sponsor?" and I said, "Oh, I didn't know I needed a sponsor either." They laughed again and said, "When you get those things, come back." I'm sure they didn't expect to see me ever again.

I found out what a clearing firm was



**Once you have trading in your blood, it's hard to stop.**

and contacted one called First Options of Chicago. I told them that I was a math guy and I had some money to either lease a seat or to use for trading. They explained it all to me and I said, "I also need a sponsor." The guy who ran the office called one of the traders and asked him if he would mind being my sponsor. The trader must have asked him something along the lines of, "Is he normal or is he a crazy?" because I heard the guy in the office say, "He seems pretty straightforward and normal to me." I now had a clearing firm and sponsor. I went back to the exchange and they said I could become a floor trader.

**That's an interesting story. Most people I speak with have a family member or close friend already working on the floor. How was your experience as a "newcomer" on the floor?**

I didn't know anybody, apart from this one guy who was now my sponsor. On the floor, you had to pick a crowd to stand

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in. I picked US Surgical for no particular reason, except that it had a lot of activity. So I walked into the crowd. I wanted to be a nice guy and shake everybody's hand and introduce myself, but nobody wanted to talk to me. They don't really want another person coming in because that's more people to split the pie with. So I was ignored. I was standing among this crowd and people would talk right through me. It was very strange, I was intimidated, and I didn't say anything on my first day.

On the second day, I stood on the floor all day long and nobody said anything to me and I didn't say anything to anyone else. By the third day, I told myself that I had to start speaking up or else I would never make any trades and I was just wasting money being on the floor. So I decided that the next time a broker came running into the crowd with what he says is the most important trade of the day, which might be some 10 lot, I'm going to shout out my market louder and clearer and faster than anybody else.

***Is that what happened?***

That's exactly what happened. A broker came in and asked for some market and I shouted out what my market was, but I said "up 10" instead of "10 up," and all of a sudden the crowd just stopped. It was one of those magical moments when you hear all this activity and then all of a sudden it becomes quiet and you can hear a pin drop. They all looked at me and started laughing. I felt so small because I was the "up 10" guy instead of the "10 up" guy. But that's what it took to break into the crowd. After that, the guys would talk to me and I blended right in. I became a regular.

***So that mistake opened the door for you. You're not trading on the floor anymore, so what are you doing now?***

I left the floor on 9-11 [September 11, 2001]. I was planning to leave anyway. It was during the time when the markets had gone to multiple listings. All the options started trading on most of the exchanges, and that narrowed the spreads. As a market maker, I would make money on the spread between the bid & offer or the bid & ask price.

For example, let's say I had a market of \$3.00 offered at \$3.25. If you came in and wanted to buy, you'd have to pay \$3.25. If, one second later, you changed your mind and wanted to sell, you could only sell it for \$3.00. So you'd be losing that quarter, but on the other side of that would be some market maker, perhaps me, making that quarter. So the spread was important to us. But once they opened the options to all the different exchanges, the spreads became narrower.

My market on the AMEX might be one price and the one on the CBOE might be another price, and the national market would be the highest bid and lowest offer. It became a bit of a problem.

The other problem was they went to penny pricing. I had spent a lot of time getting good at adding fractions. I made up index cards so that on the subway, I could practice adding fractions together very quickly. Then they changed the units to nickels and pennies. Of course, most people can add nickels and pennies without practicing with index cards. So I was planning to leave anyway, but once 9-11 happened, I decided not to go back to AMEX.

***What did you do after that?***

I started trading off-floor. A number of years later, I contacted Larry McMillan. I didn't know him personally but I knew of Larry. He wrote a number of terrific option books, he published newsletters, and he had a great reputation. I told him about my idea of starting a mentoring program. So we started working together and for the last seven years I've been running a mentoring program with Larry, teaching people how to trade. It's a one-on-one type program. I also trade, although I do a lot less trading now than

I did before. Once you have trading in your blood, it's hard to stop. It is a great way to make a living if you understand how to trade.

***You said your mentoring program is a one-on-one program. Do you teach people over the phone, online, or in person?***

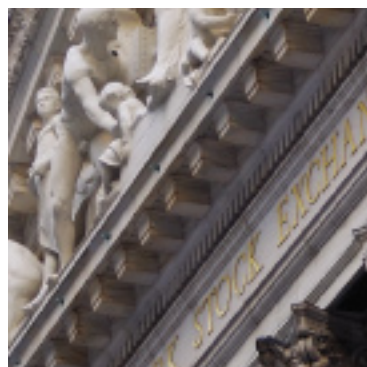
When we started out, it was a two-day in-person program. We would meet at an office and work solidly from early in the morning until the end of the day for two days. We did that for about six months and found that it was too intense for most people. We thought a better way to deliver the product was to do it over the Internet. We use an online meeting program that makes it possible for us to see each other's screens and communicate.

Before you start trading, you really have to understand how to trade. This is a very competitive business. The truth is that most people who trade options lose money. It's a zero-sum game, and to make money doing this, you have to work a little harder. You have to be a little bit more motivated and you have to understand options a little better than your competition. So I spend a lot of time educating people before they start trading.

***What are some misconceptions people have or mistakes people make when it comes to trading options?***

The biggest misconception is that people think trading options is too risky and that it's speculative. The beauty of options, the way I see it, is that options are so flexible that they could be used in almost any way. If you want them to be speculative, then yes, they can be speculative. There's a trader I know who goes for what he calls the "ten-bangers." He's looking to make 10 times his money on every option. He doesn't do it often, but when he does, he hits a home run. He strikes out often. That's not how most people want to allocate their capital.

Options can also be conservative. They can protect a portfolio; that is, they can provide a kind of insurance. Most people have life insurance, homeowner's insurance, auto insurance, health insur-



ance, and so on. But they don't think of having any insurance for their portfolio, which may be their second-largest asset. Options can provide insurance for your portfolio.

Or you could use options to generate weekly or monthly income, if that's what you need. They are so flexible. If you have a prediction about what will happen in the market, options give you a way to take advantage of that prediction.

One mistake I've seen a lot of option traders make is overusing adjustments. Option traders like to make a lot of adjustments when they are trading options. My way of thinking is that you put a trade on for a particular reason. Once that reason has passed, then you take the trade off. There's no need to turn every trade into a winner, yet many traders try. The most successful traders don't think that way. Many traders overuse adjustments to a large degree.

Another mistake is that traders like to buy long-term options, which are called LEAPS [long-term equity anticipation securities], and they sell a near-term option against it. When that near-term option expires, they sell the next month and the next month and continue doing that for the life of the LEAPS. The theory is that eventually, when you get to that LEAPS' expiration, you own it for free. But realistically, it doesn't work that way. That strategy is really a calendar spread, where you are selling a near-term option and buying a far-term one — in this case, a *very* far-term option. We have criteria we follow when we put a calendar spread on. You want a certain amount of skew between the option you are selling and the one you are buying, and you want the stock price to be within a certain range relative to where the strike is. Say you meet the criteria when you put on the position originally. Then, when that near-term option expires, there is no reason to automatically sell the next month without regard to what the volatility or stock price is at that point — I call that the lazy man's way of trading. The only reason you're doing it is because you already have the LEAPS on. I would encourage them to pay the few bucks to take the LEAPS off and then determine what the best trade is from that point forward. Oftentimes,

something would have happened, that is, the stock would have moved or the volatility would have changed, and the trade would no longer be a good one. To do that on a regular basis doesn't make a lot of sense to me.

#### ***How is trading options different from trading stocks?***

Most people would never buy a stock unless they thought it was going up. Similarly, they'd never sell a stock or short a stock unless they thought it was going down. Options are a little different. I might buy an option with the expectation it's going to go down in value. Why would anyone ever do that? Because you're doing something against it. In other words, you're selling another option against the one that you're buying with the expectation that the sold one is going to go down even more in value and the net of the two will be profitable to you. So you may lose on one, but you'll make more on the one that you're going to gain on.

I'm a spread trader and most of the time I think in terms of putting on spreads. I don't buy a call if I think a stock is going up or a put because I think a stock is going down. That's a stock-trader's mentality, because all you're doing is using options to gain additional leverage. Most professional option traders will think in terms of spreading out the risk and thinking more in terms of volatility than direction.

#### ***But there are a lot of other things to look at when you trade options, such as the delta, theta, and so on. Why are those important, and what are the most important variables to look at?***

They're all important. The greeks — there are five of them — are sensitivities. They tell you what should happen, on a theoretical basis, to the value of your option when a change in one of the variables that define the option takes place.

There's *delta*, which relates to the price of the underlying. (I'll refer to the underlying as stock.) Delta refers to the change in the option price relative to a \$1.00 change in the stock price. Then there is *theta*, which measures the time to expiration, and *theta* measures the

decrease in the value of an option as one day goes by. Then you have *vega*, which measures a change in the option price relative to a change in volatility, which is a key variable. And then there's *rho*, which represents the change in the option price relative to a change in the risk-free interest rate. The fifth one is called *gamma*, which represents the change in one of the other greeks, namely delta.

Gamma is a little different; it determines the change in delta relative to price. Some people look at delta and gamma and use the analogy of speed and acceleration, delta being speed and gamma being acceleration. That's a fair analogy of what they are.

The greeks are very important. Just like you wouldn't drive a car without a speedometer, gas gauge, oil light indicator, and so on, to get from point A to point B. The greeks are your gauges and you need them to get from point A to point B.

As far as their importance, they're all important. The one that's probably the least important, in today's environment, is *rho*, which represents a change in interest rates. Right now, the risk-free rate is so low and it's not constantly changing, which is why *rho* is currently not important. When I was trading on the floor, interest rates were generally in the 5–6% range, but at one point, they went up to around 12%. At that time, the *rho* was critical. Traders would keep an eye on *rho*, especially if they had longer-term options. The impact of interest was more important for longer-term options than shorter-term options.

I remember when reporters would look at [former Federal Reserve chairman] Alan Greenspan's briefcase before a Fed meeting and try and anticipate whether interest rates would change based on the thickness of his briefcase. At that time, interest rates were critical.

Some traders think that gamma isn't important, which drives me crazy because I think gamma is a critical greek to be familiar with. In fact, sometimes I'll design a position around my gamma: Do I want a long gamma position or a short gamma position?

In general terms, a long gamma position is one that benefits when the stock

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price moves. A short gamma position is one that benefits when the stock price doesn't move. I will often ask people when they're enrolling in our program if they understand the greeks. Most know what they are, but when I ask how they're used, they usually say they don't use them.

***Do you look at all those variables simultaneously to decide whether to place a trade?***

I tend to trade based on earnings, and the reason for that is I've come to the conclusion that there are very few things we know for sure about trading. How many times could you say, "When A happens, it will cause B to happen after A"? When earnings are released and they're good, the stock could go up or it could go down. It depends on a lot of other things. The only thing that we know — and even this isn't 100% — is that after earnings come out, the volatility of the options will decrease.

If the stock goes up a little or stays where it is, it'll happen almost immediately, and if it goes down significantly, it might take a day or two. But the bottom line is that after earnings come out, the volatility in the options will get sucked out. People refer to it as the *volatility crush*, and it's one of the few things we can rely on. I've based a lot of my personal trading on volatility decreasing after earnings. I trade based on other things as well, but trading on earnings is something I feel very comfortable with. And earnings are a recurring thing, since all public US companies have to report earnings quarterly. So I can look at history for some guidance.

***You brought up volatility and I wanted to talk a little bit about what implied volatility is, the importance of it, and how to apply it to your trading.***

I'm a volatility and spread trader. Traders will usually say something like, "I bought something for \$3.00 and sold it for \$5.00." Everyone understands that. When I was on the floor and talking with other professional traders there, the conversation would be more like, "I bought the 33 vol and sold a 38 vol." That's how important volatility is to traders.

Historical volatility is what has hap-

pened in the past. We can measure it in different periods. We can have a 10-day historical, a 50-day, a 100-day, 200, and so on. You can measure it over any time period and then annualize it so you can compare different historical volatilities. But even if options were never invented, we would still have historical volatility. It's not directly related to the options.

There are two types of volatility that I'd like to explain. First we have what I call the *future predicted volatility*. That's the volatility that you have to put into an option pricing model such as the Black-Scholes. There are six variables that define the theoretical value of an option: stock price, strike price, time to expiration, future predicted volatility, the risk-free interest rate, and dividends.

Of these six variables that I mentioned, the future predicted volatility is the only one that's difficult to figure out. We know where the stock price is, we know what strike we're looking at, we know the time to expiration, we know what the risk-free rate is, and we know what the company tells us they're going to be paying out in dividends. We know five of the six variables. Volatility is the prediction that we really don't know. Your value may be different from someone else's.

Then there's the all-important implied volatility. For any particular option, you might not know what the theoretical value is because you have to put in a predicted volatility. But on the other hand, you know where an option is trading. So you have this model, which is really a mathematical formula or function, which requires six inputs. You know five of the six inputs and you know the price of the option. The volatility that you have to input into the formula now to make the actual price of the option match up with the predicted price of the option is what is called the *implied volatility*. You can solve for the implied volatility and there are several ways to come up with that number.

It's a way of pricing options and determining if one option is cheap or expensive relative to another option. For instance, a \$5.00 option might be cheap and a \$2.00 option might be expensive in volatility terms. This concept of implied volatility gives us a way of measuring that. There are some issues with it. Based

on what I just said, if you look at a particular time to expiration, let's say one month to expiration, and you look at the at-the-money option, you come up with an implied volatility. If you then look at, say, a strike just a little bit in-the-money and another strike a little bit out-of-the-money, you'll probably come up with different implied volatilities. All three of these implied volatilities are predicting what the volatility of the stock will be between now and expiration.

By using three or any number of different strike prices, you get three or more different predictions for the same thing. You'll hear people refer to this as *skew* or *volatility smile*. On a theoretical basis, you would think that they should be the same because they are predicting the same thing. Skew can be a little bit of an issue, but it's good for those who understand it and know how to take advantage of it or properly utilize it.

***How do you manage risk when things go in a different direction than what you anticipated? It seems like with options, it's a lot more complicated than in stock trading, where you can just use stops for risk-management.***

Let's say you have a spread on. Then the stock moves more and you would lose less because you have protection on your position. In other words, if you're buying something and selling something else against it, then if the stock moves, you might be losing on the one that you bought, but you're gaining on the one that you sold. You mitigate the risk a little that way.

There are other types of trades such as a short straddle, which I tend to like but I'm not recommending to others because it can be very risky. There are two ways to mitigate risk with a short straddle. You can trade a small size or you can buy protection on both the downside



and upside. That would turn the position into a butterfly. Of course, you pay for insurance, so it's ultimately decreasing the rate of return on that trade. You have to be careful how much insurance you buy — you can overdo it.

***What tools do you use in your trading?***

There are a lot of good tools available. Some to mention include thinkorswim, TradeMonster, TradeStation, and other trading platforms. I use OptionView in my trading. My most-used tools are the

ones I have created in Excel spreadsheets, plus Option Workbench (OWB), which was developed by a former student of mine.

***Any words of wisdom for aspiring traders?***

People underestimate the competitive nature of trading options. You need to be prepared. It is very easy to become a trader. You don't need any special training like you do with most other professions — all you need to do is open an account to become a trader.

Another thing is that I've seen people start making money when they start trading. When people have a few really good trades at the beginning, they tend to think they know more than they probably do. This could become expensive later on. Option trading is not rocket science, but it's not arithmetic either. It's somewhere in the middle of the two. It takes a while to understand the concepts, and you have to be patient and well-prepared to become a trader.

***Thank you for talking with us, Stan.***

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