INTERVIEW

How are Zero Days to Expiration options changing markets?

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Interviewed by

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Jamie: Rob, thanks for joining us today.

Rob: Thanks for having me. Excited to be here today.

Jamie: So, Rob, the last time we chatted you were, I think, more specifically involved with product innovation in equity options. What's your role now within the company? And just talk a little bit about what are the main themes you're seeing in the world of options.

Rob: Sure, well, we recently introduced a new initiative for Cboe called Cboe Labs. It's our innovation hub for the exchange where, I like to call it, where the wacky scientists that go in and invent tradable products for people to use. And so, we've kind of expanded our mandate, broadening it from not just equities to more products, platforms, really anything of the like that involves tradable product. And then we really, you know, speak closely with the customers now. We have a little bit more of an externally-facing role to where we go out, sit down with customers, talk to asset managers, talk to portfolio managers, find out where there's gaps in maybe our offering for products where they want to manage risk where they can't fine tune risk today, and then we go back to the lab and we try to create product that, you know, suits their needs. So that's been an exciting kind of development since the last time we talked.

Jamie: So it sounds like product innovation is driven mainly by client demand, but do you also sit back in your lab and just think, "You know what would be a cool product is if we, you know, got this straddle or whatever it is," and do you do some of that sort of innovative thinking yourself?

Rob: Absolutely. There's a huge balance between the two. Answering the customer demand, which is always first and foremost, but then a lot of times maybe a customer doesn't know exactly what they want. They see, you know, maybe a gap to fill, but don't know exactly how to do it. So, to your point there, we sit back and we kind of analyse the landscape. The people that make up the lab have a very diverse background, different product sets. Some have been lifelong exchange members, some have run their own companies, some have sat on big desks at banks. And so, we kind of take that collective knowledge and try to think up the product, think up the solution, and then go back to that customer and say, "What do you think? This is kind of what we came up with in the lab." And where the customer's willing, we involve them in the process the whole way. Some don't necessarily want to take that time off the desk and just kind of say, "Hey, bring me a solution." Others will go lockstep with you.

Jamie: Get a dialogue going?

Rob: Right. And that can be fun.

Jamie: So, Rob, I don't want to do a very long history of options, but I want to do a bit of a history of options because a lot of the area of options trading is changing particularly in terms of duration. I mean people are trading almost zero days to expiry options. But also, I want to talk about the rise of the retail trader because I think options were always such a scary product for so many people. It was always institutions and corporates trading. Are you seeing more retail traders trading options, and how is that sort of duration changing?

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Rob: It's a great question. I think we've ebbed and flowed. You talked a little bit about the history, so, and the duration side of it.

Jamie: So, can you take us back like 10, 15 years. What were options trading like then?

Rob: So over time, you know, we started with, you go all the way back, Cboe had just celebrated a 50th anniversary, which is exciting. So, you know, 50 years of options trading. Along that way, we started with, you know, basic options, introduced broad-based index options. Then we, as to your point, started messing with duration and where did people want to trade, how near dated did people want to trade? In 2005, we introduced weekly options. So now that brought kind of the expiries down to weekly. In 2016, within weekly options, we introduced Monday and Wednesday expiries. So now, once again, even more granularity. We got Monday, Wednesday, and Friday every week. Then in the beginning of, or I guess April, May of 2022, we introduced Tuesday, Thursdays. Now you have daily expiries every day of the week out to four or five weeks. So, you can trade every little piece of granularity. That introduction of daily options really kind of changed the face of how people were using them to manage macro and volatility risk. If you think about before, if you had a weekly option and let's say you wanted to pinpoint an event on a Wednesday, you would have the option that expired on the Friday before that Wednesday and the option that would expire after that event on the Friday. And so, you would do some form of buying the one, selling the other to try to minimise and pinpoint that risk.

Jamie: But you still had a few days gap?

Rob: But you still had a few days gap, and with optionality, you had to pay for that extra optionality. Think of it like an insurance policy. You own a one-day insurance policy, it'll cost you very little amount of money. If you own a year-long insurance policy and you have that optionality every day of the week, now it costs more. So, by trading that Friday to Friday, you were getting closer and closer. Before we had third Friday of the month, so you had month to month, now you have week to week. We kept getting closer, but you still had extra optionality that you didn't necessarily want or need. So now you introduce dailies. And let's say that event's happening on a Wednesday, you can now buy the Wednesday that expires that evening, and you have the exact event risk that you want and you can hedge out that macro volatility risk of that event on that day.

Jamie: And what's driving that reduction in expiries? It's almost sounds like options are becoming stocks. I mean they're trading very lightly underlying. If you get out the money options with very little days to expiry, it's almost like you're moving almost one to one with a stock.

Rob: There's some of that for sure. I think people just enjoy the granularity. Even if you look at, I don't want to get too broad here, but you look at just average consumer habits, and it's like people like knowing things right away.

Jamie: Instant gratification.

Rob: Instant gratification. Exactly. And so, making short term trades, knowing the results of those trades immediately, and being able to reposition has become something that the market has taken to and really enjoys kind of that granularity, and understanding, and repositioning. It also allows, you know, if you get something wrong, now you can quickly reposition, that option expires, and you're left with a clean slate so you can reposition the next day and look to change your portfolio or however you want to balance your portfolio.

Jamie: For those who are not trading options yet, but want to get into it, is there a better market environment for trading options and, you know, what level should the VIX be if they're wanting to trade or is there always a good time to be trading?

Rob: It depends on the strategy with the options. Really, that's the beauty of the optionality, is that there's so many different strategies you can use at any given point, any different market condition. We always talk about when we're designing a lot of our products, like think of it as a toolkit. We have various products, whether it's VIX options, futures, whether they're mini VIX futures. You look at the broader set and you have Russell 2K options, like when you break all of that down and you look at the toolkit, really there should be a product for any market environment or at least that's what our goal is. And so, I don't think we look at necessarily, per se, a VIX level, but obviously some strategies are more predominant in high vol environments, some are more predominant in low vol environments, but really our goal is to always have the products available so that you can trade through any environment.

Jamie: If you don't mind me asking about, I'm not going to ask you to predict the markets, Rob, but.

Rob: Please don't.

Jamie: A kind of market view right now. I mean the VIX is, I don’t know where it is now, 14, 15, somewhere around there. Are you kind of surprised coming into 2023 that it has got that low? I mean over the past few years, we're all expecting a lot of disruption, and even now there's so many macro headwinds and uncertainties out there. Are you a little bit surprised where the VIX is?

Rob: It's a great question. It does appear on the lower side just from where sentiment has been set for now a few years since the pandemic. At the same point, a lot of the unknowns I think are becoming more known. And so, if you think of the rise in inflation and the rise in rates, well, when you're starting at such a low base, you have no idea where that end is going to be. And so now we've had a series of rate hikes, inflation is high, people are making adjustments to those type of new regimes, well, you're also running out of runway to where they're just not going to keep raising rates forever. So, some of the unknowns are becoming more capped, so to speak. And then you start to look at just day-to-day environments, and you realise like, okay, the debt ceiling looks like we have a solution there. And now the horizon we're hitting summer. Things tend to be a little slower in summer. So, a 14, 14 and a half VIX level I think is not out of the question and definitely makes sense.

Some of the things that we're excited about is obviously with this influx of zero DTE options, we just recently introduced a one-day VIX. So, it takes a lot of the VIX methodology of the 30-day number. And just as a reminder, like 30-day VIX looks at, it's a forward implied number. It doesn't deal with anything in the rear-view mirror. It's purely forward looking, but it tells you what's the market's expectation for volatility 30 days from now. Well, obviously, I think we're north of 40% of our volume now in SPX trading in the zero data expiry.

Jamie: 40%?

Rob: 40%. That much volume trading near term. The market was asking for like, well, what's a volatility indicator that captures that piece? Because the VIX uses options that are about basically 23 to 37 days to expiry. So, if you're trading 42% of your volume in same-day options, the VIX isn't capturing it, and so then Cboe gave us something that does capture it. And so, we used the VIX methodology and introduced a one-day number that looks at the zero-day options and one-day options, and kind of has a rolling business time calculation that just pulls in what's the market's expectation for that next business day. And it's been kind of exciting to watch. It has some nuances. It obviously has more volatility to it both on the low end and the high end depending on when an event hits, but it's just kind of of that natural evolution of trying to pull in some of the data points of this near-term trading.

Jamie: And what is that effect going to have on markets, if any, if that percentage of zero days to expiry options goes from 40 to 60, 70, 80, what kind of effect could that have on the market?

Rob: Well, it's a great question 'because I think where we're most excited is the traditional volume that you saw on maybe that third Friday or, you know, three-month options, six-month options, those longer-term hedging that you saw a lot of institutions doing, that volume's remained very constant. It hasn't gone down. It's just almost this introduction of a new asset class, in a way, which is this very short-dated option trading has been where we've seen just explosive growth. So, you know, if we had, let's say a ADV of around 1.3 million options before this whole phenomenon started, now we're at, call it 2.6, that doubling of volume didn't come at the expense of the options that used to trade. Those are still trading. It's just it came in a completely new area.

Jamie: I've got a two-part question about positioning. GameStop seems like a long time ago now, here we are in 2023, but a lot of the moves in those meme stocks were driven by huge out of the money call options. People having to cover their positions. So, from where you're sitting, can you spot something like that happening before it actually happens because you can see where positioning is and set options? And then a second part is how can people who don't know too much about options, how can they use information to read about options to show how the market's positioned in certain securities?

Rob: So, with the meme stock, that's a great question. I think the trading is very different.

Jamie: Right. Sorry, that's single stock?

Rob: Yes, in the single stock, there was concentration risk. Everybody would kind of pile into a one-way position all based on this idea of everybody communicating, and seeing, and highlighting, and then everybody piling in. What we're seeing with the very short-dated trading is there's no concentration risk. And that's actually something we're very excited about, is the nature of so many different strategies using it in various different ways, is some people are coming in and buying, you know, a one-way directional trade in buying a put, so they benefit if the market, you know, goes down. We see upside call buying. Somebody just thinks, "Oh, we're going to see a one-day rally, so I'm going to buy some cheap calls to the upside. Try to take advantage of that." Another area we're seeing, which is almost completely different, is spread trading. And in that spread trading, I think about 55% of that zero DTE volume is found in spreads, and predominantly credit spreads. So, people are just selling spreads. They're capped risk. They know their max loss going in, but they're collecting that kind of daily yield. It's a yield overlay type of strategy. So, between all of those different strategies, and there's others, that you're seeing this kind of diversification of strike exposure and with that you're seeing a lot of what I like to call, it's a good two-way market. A lot of different opinions coming in and out and people saying like, "Oh, I want to buy, I want to sell," which is creating a very robust, very, very liquid market.

Jamie: So, Rob, just before we wrap up, and thanks again for your time, this has been great, any kind of products you're working on in the future that we can look out for?

Well, there continues to be demand for obviously in this short dated, short duration timeframe. We're targeting Q4 to introduce this daily option expiries to other products. Russell 2K being a big one. It really works well with cash-settled index products, so Russell made sense as kind of that next step. And from there, we'll continue to look and answer that demand. I think another piece, as you mentioned, retail getting more involved in the product set. The idea of introducing simpler products, to your point, like options can be intimidating, and so the idea of developing products that provide confidence to users and kind of bring them along the product journey. Start simple, get confidence, understand the products, educate them along the way. We have the Options Institute, which is solely dedicated to educating investors, both retail, institutional, around different strategies, different products, and bring them along the journey so that they're comfortable and you actually build an investor for the long term and not just one that comes in and out of the market.

Jamie: So, there's hope for me yet in options trading?

Rob: There's absolutely hope. We'll get you out there.

Jamie: Thank you. Rob, it's been so great chatting with you. Thanks for your time.

Rob: Absolutely. Thanks for having me.

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