

*diffusetap*  
Virtual Event Series

# How to Surf the Volatility in 2022

*Guest Speaker:*



**Cem Karsan**

Founder  
Kai Volatility Advisors

*Hosts:*



**Kenny Estes**

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COO & Co-Founder  
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## DiffuseTap: How to Surf the Volatility in 2022

Last time on DiffuseTap, Cem Karsan, Founder and Senior Managing Partner of Kai Volatility Advisors, talked to us about why volume in the options space is one of the most important key market indicators, the reasons behind the significant increase in options trading volume, and how seasonality plays a vital role in market volatility.

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### DiffuseTap

This networking session is part of our weekly virtual events series. Networking (you'll bump into at least a dozen high caliber fund managers) meets purposeful (you'll tap into brand-new sources of ideas)... straight from your armchair like a boss.

### Meet the Speaker



Cem is a veteran market maker and strategist in the equity index vol space. After over a decade of building industry-leading derivatives businesses, he founded [Kai Volatility Advisors](#), where he serves as Senior Managing Partner as well as Head of Research and Risk Management. Prior to founding Kai, Cem was the Founder and Managing Partner of [Precision Capital](#), which he led from 2006 to 2011. LinkedIn: [@cem-karsan](#)

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**KENNY ESTES:** Our speaker for today is Cem Karsan. Cem, do you want to kick things off by telling us a little bit about your background and what you're doing over at Kai Volatility?

**CEM KARSAN:** Thanks for having me. My name is Cem Karsan. I was one of the biggest market makers in the equity index vol space during the great financial crisis. I sold that business in 2010 and started a small family office. I realized through that process that typical asset allocation was not for me. And so, I started running a couple of proprietary strategies in-house that eventually evolved to strategies. We then co-invested with others, and eventually offered for external investment. We now have three funds.

One is Volatility Neutral Alphagen, which essentially tries to mimic a market making-type flow, relative value, using our market making models in the equity vol space. That is a negatively correlated, annual basis product, but it kicks off a nice yield. So it's kind of a "have your cake and eat it too" strategy in that sense. We also have a Long Vol strategy, which is very much convexity driven. Essentially, it has a relative value wrapper on it, so we fund the long convexity risk premia with the relative value piece.

Our newest fund, which is about two years old, is our Dealer Positioning fund. It's market agnostic. But since you're looking at dealer positioning in the vol space, and its effects on broad equity markets, this has been a growing and more profitable part of the business. It's also something that we've used discretionarily in our other strategies for some time now. We just rolled it out as a separate market timing mechanism.

Those are our three funds. They're all non-correlated, or rather inversely correlated. In this day and age, I think we all know that that is something that everybody's trying to find. It all fits into diversifying the portfolio.

**AYLA KREMB:** Awesome. Thank you Cem. I'll hop straight into the questions with you. If we take a few steps back and look at the world, it's changed a lot in the last three months. What has happened from a volatility perspective within the last three months in the markets overall? What do you think are the main drivers? What has changed?

**CEM:** Yeah. I'll step back a little bit and go back a year, instead of the last three months if you don't mind. In the last couple of years, as most of us know, there has been a massive increase in volume in the options space. Notional volumes of options are now bigger than underlying equity volumes. It's mind blowing. People have a hard time getting their heads around it. Why has that happened? Well, that has happened for several reasons.

One, we live in an increasingly non-linear world. Markets are not trading just up and down anymore. The speed and size of moves is bigger. Number two is access. We all know Robinhood and all these platforms. These have led to more access, more education, etc. Once you look at the notional volume that is coming in, we're not talking anymore about stocks and bonds, or assets. These are, again, non-linear. They have a



time duration to them. They have convexity to them. The effects of time and size of movements have dramatic effects that you can predict, and that you can look at to see the effect on the underlying assets.

These effects are having a feedback loop into the whole market, and they always have been relative to volume these days in a significant way. You've heard the whole "tail wagging the dog." Our view is that it's not the tail wagging the dog, but it's the dog that is becoming the dog, in a sense. A lot of people think that derivatives, because of its name, are derivatives of the underlying. Our view is that options are a strike and a part of the distribution of any underlying asset, both in time and in "muddiness".

The reality is, instead of betting on up or down in markets (which is what people generally think of in assets), options allow people to bet on any part of the distribution. A stock, bond, or commodity is essentially the summary. It's the expected value of that distribution. So, our view is that the distribution is the underlying. It's a series of probabilities that underlie the assets.

To give an example, let's say you have two stocks that have the exact same market cap, and are in the exact same industry. From the outside, you may think they're the same stock if you didn't have a name on them. The reality is, they might have very different distributions of underlying probabilities and risks associated with them. That underlying distribution is represented in the options chains of these products.

Ultimately, the changes in those distributions over time, whether it's on the put side, the call side, or further on the duration, ultimately have a significant effect on that underlying price. Understanding that connection is more critical than ever, and that's a big secular trend. We see options as a technology, not just as a separate product. Vol is not a separate asset class, but really, it is the asset class. Obviously, that seems strange to a lot of people. But so do a lot of things. We're reaching a tipping point in that technology, in terms of access and network effects, that are really driving exponential growth in that space.

**KENNY:** That's fascinating. You talked about how there's a trend, and the three main reasons behind that. So in some sense, do you think that the options pricing is correct? Do you think that volatility is actually reflective of changing underlying values? And is that part of your thesis? When you're thinking about how to look at the vol curve and things like that, does that present profit opportunities for you?

**CEM:** I would say it's no more correct or incorrect than an asset value's price is to begin with. An asset price is ultimately a summary of those prices. By arbitrage, it has to be. But more importantly, what an option's pricing does tell you is what people believe to be the probabilities of different events. It also tells you the risk profile of that market. And I think at the end of the day, the balance of supply and demand is more important than what is the truth, or what it should be.

I'm not here to make a prediction of where it should be. But understanding what that underlying distribution is saying, and how it's changing, and how it's likely to change based on supply and demand can give you great insight into what is likely to happen to the underlying as well.



If there is a reduction of the put side, if there is a lot of selling that's happening, if there is a certain short put exposure that's decaying because of a time limit, or if perceived risk is coming off the table, then all of that has effects on the underlying. Looking forward in time based on that distribution can give you insights on what's going to happen.

This happens all the time. At the index level, people have become quite familiar with it. I'll give you a very recent example. March OpEx is a big quarterly OpEx at the index level. We just went through them, and we saw a 8% to 9% rally in the global markets from a standstill. And it's not because of some positive news. Quite the contrary, actually. Powell came out and gave an accelerated view on what they'd be doing to interest rates. We didn't get any good news out of Russia or Ukraine either. But we rallied 9% in broad global markets in a week.

Why did that happen? It's very much tied to the March OpEx. The world had short puts in that March OpEx because it was also the Fed meeting. It was also a big quarterly expiration. There was lots of open interest. That short interest by dealers that are hedging had to come off the table in that week, as it did. The world was decaying longer puts, and shorter delta.

That simple fact means that there has to be a rebalancing of vol levels and underlying market levels, and of buyers in the market and sellers of vol. That is what kicked off this feedback loop. It's not the only thing, but it often is one of the most important factors to understand when you're looking at underlying prices. In March 2020, the low in markets during the big COVID crash started on the day of the March OpEx. That's not a coincidence.

There was a lot of liquidation of short puts. That had to happen before the market could turn around and start that V back up. These quarterly expirations at particular times when there's big open interest can have massive effects on markets.

**AYLA:** When you're talking about the rally that happened over the last couple of weeks, someone in the audience is asking, what's the relationship between volume and volatility? If there's more volume, is there more volatility? Do the prices go up? What is the connection there?

**CEM:** Well, it has to do with what kind of volume we are talking about. If we're talking about options volume, options volume of certain strikes can cause volatility. That's because if there's open interest there, that means dealers, which are the banks, the market makers, and the ones who are taking on that liquidity have to hedge those positions. And if that's near the At The Money, that creates gamma effects. If the dealers are short, they have to re-hedge quickly.

If there's short gamma positioning, either broadly short vol or implied vol in the market, that could enlarge volume at those points, and that can lead to significant moves and even greater volatility. There is a reflexive effect when dealers are short vol that leads to more volatility. So in that sense, volume is connected to vol. I'll give an example.



This is an interesting one. 2017, to most people, is a year that doesn't seem to be an important year. But it was a historic year in 200 years of market history. It was the lowest realized volatility of global index indexes ever, by 30%, which is completely out of line with any other year in hundreds of years of market history. Why did that happen? That happened because there was a massive volume of options, and massive vol selling at the index level.

That pinned the market. It had the opposite effect. There was lots of volume, and it ultimately caused buying when the market went down, and selling when the market went up. It ended up pitting and compressing the vol at the index level. We know that because single list stocks had regular, fairly standard volatility, and they weren't options.

They weren't the center of options in vol volume. And that led to the biggest correlation breakdown of underlying stocks in 200 years of history, by 25%. It's a complicated answer to a simple question, I apologize. But basically the answer is, volume in the options market begets more volatility or less volatility. It exacerbates the volatility in markets.

**KENNY:** That makes total sense. I'm going to give you a softball. In your funds, obviously, you shoot for non-correlated. What type of returns are you seeing? It's kind of a buy-in question for you, so I'm sure you'll love this.

**CEM:** My compliance would kill me if I came here and talked about returns. I am not allowed to do that, unfortunately. But I can tell you that we use absolute return strategies that make double digit returns historically. That's over the long run. We've had more than that, sometimes less than that, but our dealer flow has done better than that in the last few years. Significantly better. It's non-correlated with a 0.13 beta.

But again, I can't really talk about the specifics on that. Our long vol did very well. It did 50% plus numbers during all the major crises, and has had a positive expected return historically as well. Long vol wins sporadically, but when it does, it wins really big.

**KENNY:** Fair enough. Another one from the chat I'm going to pick up. It's more of a theme that's coming across consistently in the questions as well. How is the news about Russia and Ukraine affecting volatility in the markets? And a little bit on the prognostication side, do you think we're out of the woods? Do you see the vols telling a story? Looking at options, can you say that things are coming down a little bit, and that there's less uncertainty in the space? Where's your head around that?



**CEM:** Yeah, it reflects it. Reflexivity is really something that comes to the market via the option space often. Because of all of the concern that we've had, even going back to before the Russia-Ukraine crisis, and because of all the fear, you have massive hedging in the vol space. All of that hedging is leading to elevated implied volatility and reflexively, and that's dampening the downside in markets.

Why? If people are long puts out of the money, that means that the dealers, market makers, and banks are short on those puts and shorting stock. Ultimately, as the market sits as time goes by, that leads to a lot of buyback, especially as you reach these important OpEx's like the March OpEx that we did, and that might lead to massive flows of supportive market effects.

That has led to surprising results. If you're looking at your average person, you have to wonder, how are we still here given all the inflationary effects, given that the Fed is accelerating the rise in interest rates, given that inflation is picking up dramatically and that we're having the potential risk of world war three, and all these other things? You'd be shocked to see that we haven't really moved all that much in about three months.

To a great extent, that is because of this massive buyback and feedback loop that exists in options markets. We believe that that will continue for the relative future, and that there is a compressing effect to vol, particularly on the downside. When you have that compressing effect of vol on the downside, it doesn't mean we're not going down. But it means that that vol will be much more subdued into a decline. That's also paired with the macro effects of rising interest rates, and the Fed writing calls now. What I mean by that is, as the market goes up and as the economy continues to do well, they're going to continue to raise interest rates. They're going to continue to try and dampen the upside in the markets.

There's an overhead call being written on the market by the Fed, which should dampen upside volatility. That also goes for all the risks that we have of a potential China incursion in Taiwan. Who knows if that will happen or not, but the risks of it are important to the distribution and the supply. You get these two effects, and you really get this vol dampening, almost wedge effect.

We can see that a real vol dampening is going to happen in May, which is a seasonally strong time driven by a lot of these flows. And then in the back half of the year, we believe that a lot of people will not be able to continue to pay money to hedge, and therefore will get rid of some of their hedges. That's also due in part to the poor seasonality and other flows.

We see that there is a much bigger increase geopolitically of themes such as the election cycle, inflation, and other things which we'll be seeing at the back half of the year. There is going to be a lot of risk at the back half of the year to an extended, and maybe even secular decline. There is going to be vol compressing in the short term, and more risk in the back half of the year starting in May.

**AYLA:** We're diving really deep. Awesome. We're getting some clever questions from the audience as well. One of them is around seasonality. Are we seasonally on track for how one would perform



throughout the year? Or are we surprisingly off track? How is it going to relate to presidential elections? Give us your thoughts on that.

**CEM:** Yeah, seasonality is a weird thing. To most people out there, it seems like a magical construct. It's hard for people to believe that markets can have some seasonal effects. But the more you dig in and understand what causes these seasonal effects, the more you understand how real they are. A lot of them are very much tied in the options space.

There are periods of lower volume, and periods of greater volume. As we saw here in March, there are effects from big OpEx's that can drive real positive flows to kick off a short squeeze, and to get some of these things going. We're opening up right now, which makes seasonality even more important. We have record earnings and buybacks happening. We still have a very accommodative Fed, believe it or not. Even though they're starting to pull it back in, they're still increasing their balance sheet as of now. We're seeing a massive increase in earnings and flows at the business level.

Capital markets and individual balance sheets are better than they ever have been, based on the fiscal accommodation that we've seen. We've had almost the size of a new deal in terms of size, economy, and fiscal measures. There is a lot of money in people's pockets and in corporate balance sheets. Those are structurally positive flows. That also comes with the hedging flows that we've seen in broadly poor positioning.

For the most part, people are under invested because of all the fear. We're seeing that they're hedged with long vol. All of these things in this spring window cause a big structural supply-demand imbalance in the markets. And this year in particular, we believe that's the case. That said, there are a bunch of big macro overhanging factors that are in play,, such as the reduction in this liquidity that's coming from the Fed, as well as the likely increase in the reduction because of the inflationary impulse. That's exacerbated by the Russia-Ukraine issue as well.

In short, we believe the markets are on track, maybe even more than usual. The seasonality has tracked incredibly well in the last six to nine months. Again, it's because equities were up big last year, which led to a lot of positive December and January flows, and led to reinvestment at the beginning of the year. There was lower volume than usual at the back half of the year, which has led to more effects.

We had a big push up at the end of the year, which we might have expected from the Santa Claus-January effect. And then, we're getting the give back that you usually get in February, which is the second worst month of the year, and that's tied to the opposite effect of that positive flow that we saw in late December, early January. And now, we're getting the opposite effect in March for that give back. That was a bit more exacerbated because of the Ukraine-Russia issue as well.

So, seasonality has worked very well this year, and will probably continue to do so throughout May. If anything, it's more exacerbated than usual. Again, we believe that there will be a large risk at the back half of the year, and that people are going to sell in May. We do think the overhang is real, and that we're facing big secular headwinds. If there is anything that these structural positive flows give away, it's that we're likely to see a continuation of that decline into the summer and into the fall.





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Corporate Director, CME Group

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CEO & Founder, LionShare Media

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VP/Global Head of Tax, Binance.US

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