Mike:	**00:01:45**	All right. Happy Friday.
Adam:	**00:01:49**	Happy Friday.
Mike:	**00:01:50**	I just heard we're filling gaps in the ad. Filling gaps in people's portfolios, that's what we're doing. Anyway, happy Friday, everybody.
Adam:	**00:01:59**	Cheers, guys.
Mike:	**00:02:00**	Cheers.
Kris:	**00:02:01**	Cheers.
Adam:	**00:02:02**	And welcome. Welcome, Kris.
Kris:	**00:02:03**	Thank you guys, for having me.
Adam:	**00:02:06**	Yeah. I think Rodrigo's going to join us but he's got some technical difficulties or …
Mike:	**00:02:10**	Inter web issues. Well, I guess we can get started by just telling everybody that this is not investment advice of any kind. And you shouldn't get investment advice on YouTube, on Friday afternoon from three guys, soon to be four guys. And yeah, go get real advice from real people, not the people on this show. Anyway, but we're going to have a good conversation. I'm just, yeah, getting out there further and further. I think it's going to be a fun conversation. A lot of …
Adam:	**00:02:40**	Oh, yeah, definitely.
Mike:	**00:02:41**	A lot of reality coming into this. So, you want to introduce Kris or Kris, you want to introduce yourself?
Adam:	**00:02:46**	Yeah, Kris, you better introduce yourself then. You've got a pretty interesting career arc, and I don't think I'd do anywhere near it justice. So, go for it.

Backgrounder

Kris:	**00:02:54**	Oh, yeah. So, my name is Kris Abdelmessih. Mostly you guys probably all know me from hanging out on Twitter and writing *Moontower*, which is a weekly email that I send out every Sunday. And otherwise, writing on my blog, where I mostly talk about trading and options, kinds of material. But yeah, I started trading in 2000. I came out of college and I went straight into Susquehanna, which is a large options derivatives trading firm. And I spent between Susquehanna and then going out on my own, I spent 12 years on the floor in New York, pretty much all the floors in New York. I started on the AMEX, went to the NYSE, went to the NYMEX, went to the -- then got

memberships. While I was on the NYMEX, I was in that building and I'd gotten memberships on the ICE, I got one of the NY-- sorry, the COMEX. And the ICE was the NYBOT before that, kind of over there.

And then after 12 years of being in New York and being on the floor, I moved to San Francisco where I joined a hedge fund where I built their commodity derivatives platform. And that was -- spent nine years there. I left the business or I left trading a year ago. And right now I'm just kind of hanging out, which is why do you see me on Twitter more often and I have extra free time and all that. And so that's kind of who I am. And yeah, basically did one thing for my entire career, I traded options. So, I was telling Adam and Mike before this, the reason I even went online, went to Twitter and all that was to learn. I didn't know anything about investing. And I probably popped on Twitter about sort of lurking, probably six years ago or so or five years ago, and I really didn't know anything about investing.

I only knew a very narrow thing, which was trading options which was basically a game, the way I kind of saw it and didn't really do a great job of linking it back to thinking about investing in general. And then as I started learning, from all people, like people like yourselves, all these awesome people on Twitter that are full of knowledge, I started listening to podcasts, and then started connecting dots. And that was what kind of got me into writing. And then once I started writing, I realized, oh, people thought this was a different perspective. So, it seemed useful, so I kept doing it.

Adam: **00:05:41** Yeah, it's jarring to hear you say that you spent, was it, going on 18 years or so, 16 years or so trading options and derivatives. And then you went to Twitter to learn about investing. That's a jarring thing to hear. And obviously, you were successful enough to be able to press pause on that career trajectory, and take a step back and kind of quasi retire and take stock and figure out what you want to do next, and do some thinking, do some writing. So, maybe, what do you mean by I spent 16 years in markets. And then I stopped and went to Twitter to learn about investing. People would be curious to hear about that.

Knowing Nothing About Investing

Kris: **00:06:29** Oh, my God. It's super embarrassing, actually. So, other than, like, my only exposure to stocks for most of the last 20 years was I had put, or at least until I started learning about investing, was I would, whatever was in my 401K. So, I would max my 401K, and SIG would give us a match and all that. And I would just plow that all into the stock market. But otherwise, in my mind, I graduated in 2000, and started right into trading. And I also said let me buy a place. That seemed like what you're supposed to do with money. So, I bought an apartment that was the first thing I did. First of all, I didn't really think -- I never thought about investing, because it wasn't a pressing problem, because I know, I want to buy a place. So…

Adam: 00:07:23

So, I want to press pause here because it's this difference between trading and investing. So, maybe what needs to happen here is you need to define what you mean by investing, right? Because investing can take so many different forms. And yes, 12 different people who act in markets … how is it that you spent 16 years trading, but that's not what you've described as investing? So, what is investing?

Kris: 00:07:49

Yeah. So, investing in my mind is called -- it's this thing that happens once you have savings, or that's like, first of all, that's how I think of it. Kind of now is, investing is I have this corpus of money, I want it to grow. And your time horizon is basically longer. Trading to me is this transactional game. It's like everything I traded had an expiration. So, it has got an endpoint. It's almost like, if all you did was invest in catalyst driven stuff, that's what trading sort of is. It's just I'm going to -- I know that there's an endpoint to this, there's going to be some convergence to this. The entire concept of a PE that could get really large or something that can like -- something that would diverge a bunch from intrinsic value, it's like in options, we're going to find out what the value of this thing is going to expire, there's going to be a realized vol, and we're going to know the outcome.

And with a future, it's the same thing. Like, a future cannot just trade wherever it wants to. Eventually, it has to converge with the spot market, which is a physical market where people are making actual decisions about, am I actually willing to buy this barrel of oil and I got to use this barrel of oil and how much can I -- when I go to refine it, how much could I sell it for? There's real economic decisions that have to happen there and there's expirations. So, when I think of trading, it's shorter term in nature, more transactional, it's everything's a catalyst. Whereas investing, investing is almost in my mind now like, re -- I almost think it sounds stupid, but reinvesting is probably the better word for it, because something could be cheap. But what's opaque to you when you go to buy it is what really matters is the internal rate of return on their projects and how they can deploy capital, is that going to be true?

So, sometimes when I think of -- today, if I think of a stock, hey, that stock looks cheap, I would actually might flip that in my head and be like, actually, that's an implied low forward rate of return on capital. That's all it is. Like, a stock that looks cheap, is one that has an implied low return in the future. So, in investing, you really can, the future is like a big part of that payment. I guess, if you were to do a discounted cash flow, it's like, what -- those balloon payments at the end or whatever that value is, at the end, carries a ton of weight in that computation. So, it's a completely long-term sort of thinking, and I didn't think like that. I just think of everything as a game. Also, again, I was really naive. I mean, like, again, it's embarrassing. I was really naive. I really would think, like, why would anybody do this?

In my mind, like, I'm looking at getting edge. I'm like this thing's worth two and a quarter and I'm selling it for two and a half. I know this is a good trade, I know -- I just got to manage the risk on this thing. But I know what the edge is. I'm like the house in a casino. I thought everybody that's out there investing, like, why would you do that? I said, this is like, you're a customer. And that in my world is the biggest -- not that it's an insult. But a customer is my counter party and I don't want to be them. So, for the most part, I thought of it, I didn't really understand -- I didn't connect all the dots. It wasn't until appreciating alpha or edge and capacity, I didn't realize the guys that were running my firm, they were just plowing all their money, probably right back into building the firm.

But there was never -- nobody ever talked about what those guys or those guys never talked about what they did with their own money. So, when I looked out at the rest of the investing world, and I said, people are out there trying to earn 10%, like, they're suckers. What the heck are you going to do with 10%? What good is that? So, it's just super, super naive. I mean, again, it sounds absolutely ridiculous. But I survived like this for a long time, like just not understanding. And I'm not -- I wasn't a person who went and read, like, I didn't read a ton of investment books or anything like that. I was more concerned with trying to understand how the game was played.

Mike: **00:12:23** Yeah.

Adam: **00:12:22** Mike, you're going to have to chime in here, buddy. Because …

Mike: **00:12:25** Yeah. No, no, I mean, it's -- I think of trading as a business, right? You were running a business. And you're running through the steps to run the business, whatever they are, you've got an opportunity set in front of you, you're trading in that opportunity set. And it's an ongoing daily thing. And it's not investing per se, where it's, I'm going to leave the capital of somebody else to do something else with it in some sort of business form, or they're going to do the reinvesting. I mean, it's sort of like, the difference between the active business aspect of it, versus a passive business aspect of it. You're a passive investor, so to speak, leaving activism out. But you're passive to somebody else to doing things for you with the capital you've provided them. And you're really not having any influence on that business.

But the business of trading is a business in and of itself. That is, you open the store every morning, you got stuff to do, you might have some inventory that you've collected, that you've got to clear that you think you're buying lower and selling higher or the opposite in a profitable direction. So, to me, it's an interesting thing. And then you get into such narrow knowledge in that space and providing liquidity to markets. And something I'm interested in, like your cohort of 2000. I mean, you were coming into NASDAQ 5000 the first time, right, and so how was that? Who survived? And how did you survive, right? You come into 2000, I imagine everybody around you is -- there's all kinds of cohorts that are making lots of money trading, I'm assuming. So, you come into this business, why did it attract you at that point and then how the hell did you survive? Like, how did you twist -- did you just have good mentorship, good coaching? Like, how did you make it through? Because I imagine if you looked at your cohort from that year, there wouldn't be -- were that many surviving traders that started in 2000 with you?

Kris: **00:14:20** So, oh man, that's such a good question. First of all, your analogy of trading is a business, it's 100% spot-on. I should have just said that right from the beginning. It's exactly -- I mean, there's no better description of it than trading is a business so it's the kind of thing that one would invest in, but it's not investing, it is a business. Yeah. So, the going back to my cohort, so if we go back -- okay, if we go back to that, that's really amusing because here, I have no worldliness about me whatsoever, right? I'm going into this job, I show up one morning, and I get my fingerprints done, there's the bathroom, go down to the floor and go stand next to somebody.

Like, that was day one, like, go stand next to somebody. I go stand next to this trader and he's got all these fancy spreadsheets. By the way, I have never seen Excel at this point. I don't have any skills whatsoever. I know nothing about anything. So, I don't even know how Excel works. He's got all these workbooks open, there's 20 tabs on each one of them and a million calculations on pricing models and all this stuff. I don't know what's going on. He's like, the booth is this tiny little thing, stinks like man. And he's just like, "Dude, get out of my way." It's like the most uncomfortable -- I wanted to quit after the first day. It was absolutely terrible. And I didn't know what was going on around me, which was like this was a bonanza.

I mean, this was like they were -- I was at SIG in 2000. They were probably -- you know, the queues pit was, I was on the mezzanine of the AMEX. So, the queues, I was in this one corner and the queues pit where they traded just the ETF, that was a big product back -- that was a new product**.** Yeah. And that was rocking. I mean, rocking. I don't know how many people were standing in that pit and you're making queues market. These guys are making queues market 15 cents wide, right? It's like a totally different game. And so this place is rocking. The first guy they assigned me to actually go work for, like, I stand there like an ass for a couple of days, don't know anything. And then finally, like, you know what, why don't you go with Reggie Brown, Reggie …

Mike: **00:16:55** No way.

Kris: **00:16:56** Hell, yeah. For real. So, they're like, Reggie will take you. So, I'm like so I basically go to clerk for Reggie. So, Reggie's standing in the spot and the SPDR's. So, Spear Leeds is the specialist, still that's a rocking pit too, SPDR's a big deal. So, I'm standing -- Reggie's in the pit, he's the biggest dude in the pit, absolute monster. He's got six capital and he's a monster himself, and like just he's the man right? And so I'm standing like six feet from Reggie. I got my own booth. I got a spreadsheet.

Again, I don't know anything about Excel. At this point, I'm just putting in trades. Like Reggie is giving me his trade pads. He's like million trades a second writing them down, throwing the paper at me. I screw up. You know, eventually as I sort of learned the business, I got the point clerk in Chicago. We had the point clerk in Chicago to do the futures hedges for us, and I remember -- Reggie, maybe will kill me for saying this. But I remember one time missing a hedge and Reggie came by like literally, like took the phone, was angry, like smacked it against the side. And Reggie's a big dude, he vaporized the phone. There was nothing, like nothing left, dust. And I'm like, how do I get a new phone? Like, I need a phone to do my job. Where am I going to get a phone?

Mike: **00:18:15** Dude pops out of the floor with a phone because, you know, this happens on a trading floor.

Kris: **00:18:20** I literally don't even remember how we got the phone. They did -- I still don't even remember how we did it. Anyway, we ended up -- so, I'm learning Excel. I'm like, literally learning how the sells work. I don't know shit. This is really kind of pathetic. But the point was at the time business was amazing. So, how did I survive? It was almost like how could I not survive? They were crushing it. And we were learn -- like, so I got -- and I was part of the largest cohort. Joke around all the time, it's like if I tried to get hired today out of college, I probably don't get hired. Because they were like, we need warm bodies. We're going to train you and you're going to stand in a pit, you're going to say me too. Just put your hand up, say me too -- I mean, they really did train us but they could have gotten away with that. There were other firms that were basically just putting anybody with a pulse in the pit. Stand there and just do what everybody else does. And you could have made a great living doing that. So…

Mike: **00:19:20** For about six months.

Kris: **00:19:23** For about six -- Well, I mean, it was kind of like because you're delta neutral, right? So, you don't really care. And so we were …

Mike: **00:10:33** So, you just wanted the volume there.

Kris: **00:19:34** We just wanted the volume, right? Like, you just want the volume and edge ,market width. So, in a sense my survival, yes, my survival was rare, but it wasn't because of the time. My survival was rare is because the natural rate of attrition in the business is so high I even -- I mean, every year of my career, I always thought there was -- the end is soon, the end is soon. I mean, for 21 years the end was always soon. Maybe not at the very, very beginning, but I mean 2003 was a really -- was not a very fun market in options that year, I remember. And we were starting to see -- I had ended up, I ended up -- I got very lucky. I clerked for a very illustrious cast of characters. Everybody that I rotated with, I mean, some of the partners of Jane Street were people that I clerked for, people that are big shots now that I got a chance to learn from.

And in 2000, we were starting to get -- there was more exodus to Jane Street. There was a lot of stuff kind of getting scattered, around this period of time. And I didn't know anything. All I knew was that the people that were older than me, they were making tons of money for you know. It was like they're 24, and they're making lots of money and I just thought that this was normal. And I think the big thing I ended up learning over the next few years, I witnessed a lot of changes in the market firsthand. When I first got down there, we're still in fractions. So, I watched decimalization happen. When we got down there, it was just when options went multi-list. And that meant go into four exchanges, right? Before that everything was a single list.

And then the ISC came around a few years later. And that was sort of like a big, that was kind of a big disruption when the ICE kind of came online. But the -- so, I kind of witnessed that. And then in 2003, I ended up moving over to the New York Stock Exchange where I was a specialist -- well, I was a broker for a year. So, we did this thing, where at SIG, where they had a broker's unit that they had acquired a couple years earlier and had this idea of like, hey, let's take people that we've properly trained, and like decision making and trading and expectancy. Let's take people with that mindset, and bring them over to the New York Stock Exchange and see if we can trade underlying, because we're a derivatives trading firm, but can we go there and trade underlying? So, we would do it on behalf of clients.

So, we would have clients and you'd go in and you try to make better decisions for the clients, like if they gave you a not held order. Some clients would never do that. They were like limit order, you know, give you very strict instructions, I want to be, you know, common kind of orders back then. I want to be 10% of the volume. You know, I'll buy more on a print, that kind of thing. But they would -- but on a not held order it was like okay, let's see if we can do better. I learned a lot about brokerages that, what I learned is that you can't win. That's what I learned about that business is that you're basically short an option. Like if I do better for you. you're like marginally happy. But you only remember when I miss it. So, like over the long run, I think I'm doing better for you, but you don't remember that. So, that's a losing proposition to be a broker or I don't like the way that felt.

And then I spent a couple months being a specialist in ETFs. At the time FEZ was the big -- was a kind of a -- the FEZ, FEZ was the hot thing. There was FEZ and FOO was the other one. But FOO didn't get that much volume, but FEZ was kind of hot. And FEZ was a pretty complicated one to price, I remember that was -- and I kind of got thrown into that. I took over for another trader, got kind of thrown into the fire on that one. Did that -- I did that for about six months. And that was before I went over to the -- and then I went over the NYMEX. That was another crazy, like it was just like my career was like one thing after the other as far as like being right in the middle of disruption in a way, because when I went to the NYMEX, when I first got over there, I was -- we kind of figure things out a little bit like get set up, go into options pit, get a clerk in the futures pit that you're going to hand signal your order to and like I have to learn the hand signals. And that was a total mess of another kind because now I'm in this pit and all the guys around me and there's 100 -- I'm shoulder to shoulder with a bunch of dude. I'm 6"1 one I'm an average to small guy in there.

I mean, I'd be, a guy next to me with an offensive lineman for Nebraska. Like, I'm around huge dudes and you're trying to, and their buddies are ready with the guys and they're going to be doing the futures order. So, I'm like the new guy and also you're this firm Susquehanna, and you're going into this place where most of the people are locals, meaning they're trading their own money, the locals are trading their own money. So, you were going over there, and they were not especially happy to see a large firm kind of go in there. So, you kind of, you've got everything going against you in a way. And people are still trading on paper sheets.

So, basically we get run over on every options trade I did. Everything I got filled on was like, mostly what other people didn't really want, or I wasn't going to get my futures off, or I was the last -- the brokers hint -- broker comes in, he's like, I got 1,000 of these for sale, he divvies them up, whatever. Maybe, I get a 30 lot out of the 1,000 or something like that. I go to hedge it. I'm the last person in the queue to get hedged because the future's guy is buddies with everybody else. So, it was right at the cusp of things going electronic. And we were built for that, because we were built like, we got -- we were some of the early guys that had got tablets in the pit. We were ready -- we had partnered with -- we were using this vendor, you know, I kind of -- I even helped them, like, trouble -- I noticed their gamma calculations were wrong on the software.

I was like, hey, I think you guys should actually do it like this. And we were sort of early adopters of the technology. And between that and things going electronic, which would level the playing field, we were able to sort of break in. So, it was kind of -- and it was a good deal to go over there, because they were kind of like, look, we've tried to go over there twice in the past, it's never worked. This time, this was the beginning of the commodity super-cycle stuff, oil was on its way to -- This was 2005. So, oil was probably maybe 30-40 bucks at the time on its way up. And we were able to sort of break in this time. And Susq was like, they were super cool about it, go over there, try not to lose a ton of money. Just try to get some traction. You know, in the long run, we think this would be a good place to be. And you know, we figured it out. You know, probably within a year we figured it out. My other guy that I went over there with, he went into nat gas, I went into oil, that's how we split the duties. And then we started expanding the business after that. So, that was …

Adam: **00:27:21** But the transition was from call to electronic and you guys were like, you guys were kind of built for electronic. Right? That was where -- that was where the new edge was. And so you were primed for that and you went from the guys who had the edge being those were who were in the pit, who were big, who

		were aggressive, who had the relationships, who got the first order fills, etc., to being the guys who were the smartest, the fastest with the analytics, had the pricing edges, et cetera, right? That's kind of the transition that you're describing.
Kris:	**00:27:57**	Ultimately, ultimately. I mean, it took time to characterize it like that. And everybody -- a lot of firms were going down there, and they were co-evolving while we were evolving. So, it was -- things were -- it's the story of this business, things were going to more institutional. When I came in there, you know, this was a -- when I was on that -- when I first started on there, I remember, there was a lot of misfits. When I was out on the floor there was a lot of misfits. The guys, really interesting characters. I mean, you're talking about the best chess player in the United States, like some of the best backgammon players. I mean, you were talking about people with eidetic memories. Like, there was a lot of X Men down there, but were kind of misfits in a way. Like, they were not the kind of people that would be able to hold down sort of probably a regular job or -- And the floor kind of welcomed this, it was open to it. It was really no -- honestly, if you were fast and had like enough, and you were honest, in the sense that you would stand up to your markets, the brokers could trust that when they traded with you, you were good for it, you didn't flake on trades, you just didn't play a lot of games with them. If you were a stand up kind of trader, and you were fast, you were able to break in. And nothing else mattered about you. I mean, that was it. It was super egalitarian in that sense. But the story was things were getting more institutional, everything about the markets became more institutional. The banks really started paying attention to the options business after 2000. I mean, SIG probably made four or 5X what they thought their expectancy was for the year going into 2000. It was transformative and transformed everything as far as -- I mean, if you remember, it was only a little while later that Spear Leeds got bought like 5 billion by Goldman, right? Like, they had already -- there was already -- they'd already bought Hull. And then they bought Spear Leeds for 5 billion, which was an insane, insane print, like unheard of at that time for businesses like this, I mean. So, that was -- as things -- as the banks got into it, everything got more competitive. The bank traders started putting up options flow themselves, the banks started taking risks. They said, you know what, I don't want to be just a middleman anymore, taking my order …
Adam:	**00:30:33**	Yeah, they were putting their balance sheets to work. Yeah.
Kris:	**00:30:36**	Right. All that changed. I was in the middle of all those things changing but I was -- I didn't fully understand it all at the time, I was too green, so I didn't understand it. So, it was like, I feel like my first like, lots of years was me just being naive, and just being in the middle of it and having an inkling that things are changing, not fully understanding it.

Coming of Age

Mike: **00:31:00**

So, when did you come of age and start to actually see the puzzle pieces move around? Actually kind of -- the varnish is off a little bit, you're in the game and you're actually seeing -- you're seeing the moving pieces. When did that sort of revelation occur? And I know that's a process so I don't expect a date, but when did you start sort of seeing a broader picture?

Kris: **00:31:21**

Yeah. So, if we go back to -- so, in 08 -- I left SIG in 08. And 2007 was like a bonkers year for us. Our NYMEX building initiative that we had started, had done really well. She's -- actually another public person, Tina, who has more protein bars on Twitter, she was also part of that team, but she was on the NYBOT floor at the time and we're all part of this team. And we had really taken that business from don't go losing a lot of money to like, we're onto something here. What happened was in 08, standing next to -- you're standing next to all these guys that are on deals where they're getting 80% of their P&L. It's like they don't get salaries or whatever, and they're trading way smaller than me. But you know, you could get 70 or 80% of your P&L. And I said, you know what, that sounds pretty good to me, rather than making very -- compared to our P&L, like my pay wasn't that high even though it was like pretty high for a 27 year old kid or whatever, guy at the time, but the guys next to me, they were crushing life. So, I said, okay, I want to -- I should go be an entrepreneur here and go get a backer and all that. So, that happened.

I took six months off in 08, got engaged, kind of got healthier, all this stuff. And then I went over, I had a non-compete with SIG, and all SIG traders get this non-compete, so I couldn't trade oil. So, I went over and started to trade natural gas. I convinced the backer that I was steady hands. I said, look, I know this thing's a beast. We were trading nat gas, my partner was trading nat gas. I know what this thing looks like. I know it's a widow-maker and a nightmare and all that stuff. They never had anybody trade nat gas for them. And I convinced them that I was steady enough to let me do it. So, I traded gas. I started trading gas for them and I ended up -- we kind of -- I built that, I brought on a partner that would end up -- that was my former colleague at SIG who ended up being my partner all the way. I mean, he's still at the hedge fund that I just left but he ended up being my partner for my whole career from that point.

We hired another guy, we traded gas, I was the floor guy. My partner was the upstairs guy. We had a clerk on the screens, we were basically making markets everywhere. Like, all that we had, we were covering all the voice brokers upstairs. I was covering the pit and then our clerk was making mark-- was streaming. So, between us, we kind of had all those aspects of that business kind of covered. The problem was is natural gas decided it was going to be a crappy thing to trade, because the shale boom starts happening. And this ultimately killed volatility in the marketplace. And we were finding interesting little niches. I started trading gas versus UNG. I actually got myself turned upside down on that pretty badly because right when UNG, I don't know if you guys remember, like 2011, there was all this stuff about -- sorry, I'm being kind of long-winded about this. You asked a question --

Adam: **00:34:54** No, man, you're right on track.

Kris: **00:34:57** All right. So, in 2011 that was when commodities, people were starting to get upset. Like, hey, if you're going to let all this speculation in commodities -- we're going to screw up the price of food and all these things, and it's going to be bad for the economy and regular people and get these investors out. And kind of of the same thing we see with real estate today, right? Like get these investors out of these markets. So, in UNG, what had happened was the trust decided that they were going to cap the creations. And what I was doing at the time was, this was when I had a backer, so we were arbing UNG vol versus gas futures vol. And what happened was, when they cap the creations, UNG went to a premium over its NAV, because now you know, the supply's restricted.

By the way, I think a very, very, very large and smart arbitrage shop, who I think I know who it is, anticipated all this and created all the shares. So, they basically lifted the entire market. I think it was like multi 100 million dollars, kind of thing. And so the irony of it, of it all being where I had been. So, anyway, what happened was, I was long UNG vol, short gas vol. And every time -- and gas was still kind of volatile at this time. Every time gas would drop in price, the premium to NAV would just like basically -- sorry, every time it rallied, the ETF basically would converge back to its NAV, and every time it's sold off, it would widen. So, what happened was, I was long, something that stopped moving. And the thing I was short, was doing this.

So, this is normally a trade, it's like okay, maybe there's like two vols in this thing, one vol in it back then, whatever. Nowadays, things like that, it's like zero vols are in it, but like back, like when I'm doing it, it was like one or two vols might be in the thing. This thing went to like 20 vols wide. And it's like, you can't really get out of the trade and the realized vol is chopping you to pieces. So, anyway, gas made me -- you know, having a backer it's like mostly my own money in there. So, I was like this sucks, I'm getting pretty annoyed. And then after all that, gas vol starts to basically drop and I'm like, you know what, we got to find other ways to make money. This gas stuff's not working. So, that was when I went into the gold and silver pit. Caught that, just got lucky on that because then silver went -- that was when silver went to 50 bucks. Happened to already like have a membership on the COMEX and could trade it from the pit. We were built …

Adam: **00:38:02** So, were you arbing silver and SLV at the time then or what was the trade in silver?

Kris: **00:38:09** We were doing that too. Buy the way, our backers were like we were the only people at the -- they backed 100 traders. We're the only guys; me, my partner, we're the only guys doing ETF to futures because we're the only ones doing like the SEC products. Everyone is doing FTC. So, we're like this giant headache because we kept being like, you got to let us do this, you got to let us do this. To their credit, they did all the red tape to make it happen so that we could build -- so we can do these things. So, we ended up trading silver, SLV versus silver futures but also the trading and silver was just bananas. So, just making markets like on that run. So, and -- oh, the other thing is because we were so, that was the big thing, because we were active streamers in *natty*, we were like the only streamers at silver in the beginning or one of the only …

Adam: **00:39:07** Hold on. What does that mean, *active streamers*? Can you define that?

Kris: **00:39:09** So, we were making markets on the screen, basically. So, we had software that allowed us to make like bid -- So, we would set vol curves, and then those vol curves we would generate bid/ask prices around those vol curves and then we would just pilot the vol curves and you're basically automated trading in a way, right. So, you have some logic and you know, you're just making markets. But --

Adam: **00:39:34** When you say you set vol curves you had your models interpolated, you had your vol curves, you knew you know where the dispersion was against your models and this is the futures the markets were making.

Kris: **00:39:46** And a lot of that process is mostly taking -- it's taking information from the market. So, like in the voice market if somebody's like I'm 32 vol -- if I see the straddle is like 32 vol bid in the voice market, I'm going to raise my curve. I'm going to make sure that my curve is 31.8 vol bid or 32 vol bid, even if I want to lean. If I think that person, if I anticipated that that 32 vol bid in the voice market is (A), big, like if I think it's big, or if I think he has got room, and maybe he's going to go up and pay 33 vol, I'm 33 bid on screen all day, trying to accumulate what I can get knowing that I'm going to -- maybe there's a 40% chance I'm going to be able to sell 33 vol, maybe there's a 30% chance I'm going to sell 32 and a half vol. So, you're just constantly all day back and forth between arbing, like, between voice and screens and pit. That's every …

Adam: **00:40:47** So, what were the edges there, Kris? Like was it having tentacles or you know, information flow from those three domains? Was it having better models? Was it having better, you know, faster computers, better access? What were the edges that you were -- what made you better than the other people that were trying to do the similar things?

Kris: **00:41:11** Yeah. So, it was communication and being in -- looking at being in with all the places, being able to access the brokers, like having rapport. I mean, a lot of it's relationships because brokers got to trust you that you're going to be able to stand on, especially in the voice markets, because, I mean, we were trading on

Yahoo Messenger, I'm like, every second, every single second of the day, I mean, I'm not even joking. It's like constant barrage of -- I've got a chat thing up, I've got 50 blinking tabs on it. And you're like scrolling through them all to like, make sure you're like, you know what the most recent bids and offers are.

Adam: **00:41:52** And this is point and click, right? You're like adjusting things in your model manually, you're punching numbers in and watching the other numbers change?

Kris: **00:42:00** Totally. And you also got the phone like the upstairs has got the phone turret. So, you're getting IM, you're getting shouted out, it's like, it'd be like how many times a day that it's like, hold on, hold on, hold on, you're getting talked over, it's like there's 30 voices at the same time. It's like you're in a blender, man. That's what it is. You're just in to blender. So, you're flipping between tabs, you're listening to all the brokers, and then you're on the floor, and then I'm yelling up, I'm on a headset in the pit. And I'm like, yo, yo, so and so is this bid for these call spreads. They're bidding for 500. I think he's got 1,500 behind. Is there anything you can go, like -- so, basically like he's going to do that. So, he's going to kill the skew. Are there any call bids on voice? Are there any call bids on the IM?

Adam: **00:42:53** So, you're looking for a lead?

Kris: **00:42:54** Yeah, to smoke those. Like, what's the best bid out there in the 20 delta call and go wax those bids and I'll sell these call spreads in the pit. And then we'll buy a straddle back somewhere else. And we're basically, what we're doing is legging everything, right. So, it's like, in the pit, I sold the call spread outright. And upstairs, I bought the straddle, which is like basically buying the money leg back. And then we sold the calls to somebody that was just bidding for call. So, maybe there's some customer just wants to punt or whatever, they're buying calls for whatever reason. Like, everybody's got -- all the customers have different motivations for what they're doing. Some are delta traders, some are vol traders, some are -- everybody's got different motivation. One guy's just like, periodically, he does this every month, whatever it is.

So, you're trying to match us all up. And in the meantime, you have to decide, I mean, you'd like to be flat, but you kind of have to have a position. I mean, there's no-- the amount of line items that I always have, I would have like literally thousands of line items on my book, like just strikes, and every month and all over the place. And I got a six lot there and I got a 1,500 lot over here, like everything. So, between all that stuff, you're trying to figure out what do I want my position to be? So, in the middle of all this, who's smart? Like, what flow out here is actually vol smart, so that I can figure out how I want to lean this book, right?

So, in the middle, so what's making you better is like you are accessing everything, your tech is good enough to not -- I mean, you didn't necessarily have to be the fastest, that'd be great if you were but you just needed to be good enough, mostly to not get picked off all the time. And then you're -- and you had to basically cover all the markets. And now if you're doing all that, that was enough to have an edge. You could trade like one product, if you had all your bases covered, you had relationships with the brokers and you had coverage everywhere, you can make money, you had a business. And if you were clever enough to position the book the right way, you could survive, you'd be pretty –

Building Skillsets

Adam: **00:45:07** What's remarkable to me, right, I mean, all of our stuff is systematic and there's obviously lots of different inputs and lots going on and the models are interesting. But what is fascinating to me is that you are managing so much of those dimensions manually, right? Like there's, as you say, there's hundreds or thousands of line items, you're getting information from all these different sources, you're consolidating that, synthesizing it, you're and plugging it into models, you're making sure you're not making errors. And a lot of that is like point and click or typing numbers and talking to people on the phone. How did you build a skill set to manage that cognitively? I mean, it's a very different skill set nowadays. Right? So, how did you do that then?

Kris: **00:45:52** It was just training and reps. I mean one of the -- it's just kind of -- it's a funny thing, first of all, it's training and reps. There's no real magic to it. It's just doing it. If you do this a lot, like you get better at it. So, it's nothing mystical about it. But it is -- there's a lot to be said, and I'm kind of big on this point, in general. There's a lot to be said for experience. To give you an idea. Like, I've traded -- I traded about at least for the last decade, I've traded close to 100,000 equity options a day. Okay. When my Friday would come, my expiration, like the contras, like just how many contra orders you need to like decide whether I want to exercise or not exercise because it's like right on the bubble, right on the strike or whatever. It's like, that's like a process right? You're managing so many things that it becomes absolutely second nature. I used to dream in options all the time, constantly. Like I was -- the way some people like see Tetris at night, it's like, option trains and orders -- I would dream like that. And there's nothing magical about it other than immersion. It's utter immersion.

Like, I was speaking to a guy who was asking me about how do you learn this stuff? I said, let me tell you what my training was like. I spent -- you'd go to the floor, you'd be immersed all day long with these options. You know the floors of the exchanges, they had all those boards up above you with all the prices and what the S&P is doing and whatever. All day long, with the guy I'm clerking for, we're making markets on what the end of the day volume is going to be. We're trading options on what the end of the day volume is going to be, like paper trading, and we're going to settle this up. We're making markets on what various prices are going to be. I remember getting -- losing so much money, being stubborn and shorting Krispy Kreme to the guys that I was -- back in the day, to the guys that I was working for, that I had to take four guys out for like a $2,000 dinner at Nobu when I was 22 years old and that was three times my rent, okay? Like, you were, and then you'd finish your day, and you'd be like, okay, I'm done with my trading day.

Then I'm going to go to mock trading. I'm going to spend 90 minutes in mock trading with a bunch of guys that are all competing, and gals, all competing to get to Susquehanna's training class to spend 10 weeks in … Pennsylvania. That's a big deal, because on average, it takes nine months to two years to go to that class. I get hired, I was making $37,000 a year. Your pay was going to jump to 50 grand when you went into the class, and then it was going to jump to like 90 when you came out of that class. And we're broke, like, I want to get the class, right? So, you're doing call parity games, you're trying to get fast. I remember my mental math skills at that time, was -- you're just constantly working on it because you got to be fast. You're in the pit, you're in the pit, you need to remember, you might be in a post on the AMEX, and you're trading a list of 30 stocks. Okay.

There's 30 stocks in there, they all have option chains. And there's resting call offers and call bids and put offers and put bids all over the chain. As soon as the stock moves, do you know what you're going to yell out to the specialists to say I want to buy Microsoft Gen 40 calls, take those. I'll take what's on the screen now. I'll take those. Sell those puts. Like as soon as the stock rips, what are all the put bids I'm going to hit, what are all the call offers I'm going to lift in everything that I trade? And I need to keep track of all this all the time. As a clerk we would keep a spreadsheet, on a single listing, I knew what every position was. I said, if this broker comes into the pit, I know he's long 450 of these calls. I know he bought them for this price on this day.

And when he comes in, I'm going to be like, which way am I going to lean that market, okay. He comes in, I think the thing's worth seven, he comes in, but I think he's a buyer or he's short them, and he's actually coming to buy them back. Because I know that the market has dropped from when he bought these two weeks ago. And he's probably looking to take his profit. So, he comes in quoting these calls. He's short 450 of them. Okay, I think it's worth seven. What's my market? I'm 12.18. Show me a 14 bid. That's -- okay. All day, millions of times.

Rodrigo: **00:50:54** Can I just pause there because you are dealing with a lot of information. I'm sure when you first began, you're talking about experience, right, when you first began, you must have been terrified. So, I do eventually want to ask you that. But you're dreaming in option chains. There's a lot of information coming at you. You talked a little bit, you hinted at the fact that you took some time off in 08 to get healthy. How's a trader's lifestyle, like sleep wise, stress wise, or do you get to a point where you can actually be a trader, process all that information, maybe in perfect health, and everything's peachy -- hunky dory? Like, how do you deal with the mental stress of it all?

Kris: **00:51:34** You're a little bit of a crackhead. I mean, it's like -- not like literally, but like, yeah, you're -- I was a different man, I was a different person in my 20s. Right? Like, being on the floor and all that, it was -- man, no, you didn't sleep well, and you didn't work very long hours, especially when I went over to commodities, the hours are pretty short. But -- and the other thing too is this, I should say this, there is actually a lot of boredom in the job. There's a ton of boredom. Poker's a great analogy for it is you're trolling a lot of hands. But if the market wasn't busy, I mean, you guys know now, I mean, even on a quiet day, it feels like there's not a whole lot to do and you would have plenty of days, like summers felt like that, summers are boring. It's like the maybe the open and the close are busy. But you're just shooting the shit all day, like with the guys around you, right? It's very -- it's not so high strung all the time.

So, you, what you had to do is -- the analogy people used to use, I think it's pretty fair. It's like your firemen, right? It's like that bell goes off and you go into fight or flight mode, you got to get up for --you got to get fired up. You go into that pit in the morning, it's like, you know, every morning we're a team. It's like fist bumps all around. All right, huddle up, let's go. Like, we're going to get after today. And then you hit the sort of slow part in the day and like everyone's sitting on the stairs in the pit and kind of chilling out. So, it's sprints and rests and it's always stressful because even when -- actually, because the rest is usually coinciding with losing money. Resting is usually bad, you're sad. It's like being an actor, and you don't have a gig. Right? So, I would say that the boredom can be difficult, the losing money can be difficult. Again, as a market maker, your positions are oftentimes not things that you chose. So, you're hoping that you don't give up all the edge that you made trying to manage the position and hedging position. So, the stress is fairly constant. But it is -- when it's rocking and rolling, although it's all this information and all this stimulus, it's fun. It's a lot of fun. So…

Adam: **00:54:12** You're also probably not making the best decisions after trading hours either, right? Like, you're not going directly from the pit to the gym, and then from the gym to get your protein and veggies and then to bed by 09:00 AM, right?

Kris: **00:54:26** No, I mean, honestly I was pretty good, I was pretty disciplined. I was not a guy that was going to go drink at the bar sort of afterwards, every day. Like, I actually didn't do that.

Adam: **00:54:38** It's why you look rad and I look like this and we're the same age.

Kris: **00:54:44** It was -- you would go out with brokers, that was a common -- that's part of your workflow, you're going out with brokers a lot, but I was never -- and honestly I was like, even as young as sort of 30, I was already -- I'd go out with brokers because it was fun, and some of them would become your friends. And also is a great way to get information. But I don't need you to take me out to three o'clock in the morning and like, I'm not, I don't need that. So, and I was never really that big into all that at the time. So, I kind of managed to keep some semblance of balance there. I mean, your -- brokers have really, really -- I mean, I think brokers' lives were extra crazy, especially the young guys that they have to hire who are in charge of entertaining, their existence is nuts, in my mind. Looks way -- like to me, I'm like it's way harder existence than my existence. They have to always be on, they always have to make the customer happy. Like, it's just different. I couldn't, that wouldn't -- I wouldn't be able to do that. But all of this was a game and it was fun.

But what happened was in, like I said, the gas thing fizzled out, I got into silver, and then I went into cotton and cotton in 2011 went into a short squeeze. I went, got a membership there and went into that pit. It was like one thing to the other. It was like silver went nuts, I'm going to do that. Cotton got nuts, I'm going to do that. Then to go all the way back and answer Adam's question from a half hour ago, that was when I realized, my partner and I had sat down and talked about it and said, look, we have now traded a lot of markets. I went into coffee, we started trading different things. We were doing the ETFs versus the futures. And that was when the matrix started to appear to us. We said, listen, let's go get a kid that knows how to code. And let's build a spider web, like a database, and we can see the web. And let's see if we can trade all this stuff as a book, as a portfolio. That happened then. At the same time, he started, my partners started incubating or building a trend following a model. That was like our first, by the way.

Adam:	**00:57:16**	What year would that have been?
Kris:	**00:57:18**	What's that?
Adam:	**00:57:19**	What year would that have been, like, 06? 11, oh, okay.

Building Trend Following Models

Kris:	**00:57:23**	11, yeah. So, this was 2011. So, I spent like 10 years in the dark about, like, how finance actually works, right? Like, just -- I'm just playing my game, right? Around 11, he starts building this trend following model. He reads the turtle book, I forget which one, but he reads like the original turtle book. He starts …
Adam:	**00:57:43**	It was a really interesting time to start building trend following models.
Kris:	**00:57:48**	Yeah, yeah. It's funny. I mean, I probably shouldn't speak on their behalf. But it's like, that thing has turned into something extremely successful, 10 years later, it's been ..
Adam:	**00:57:57**	Exactly, yeah.
Rodrigo:	**00:57:59**	Been a rocky decade, but paying off now.
Kris:	**00:58:01**	Yeah. But in any case, he started doing that. We hire this kid, he builds us this database in Java or something like that. And that was when we started to say,

listen, I think there's more to all this. I think that if we took what we understood about how to transact in markets, and then now started to like, learn about how to construct a portfolio and all that, we think that there's something more scalable here. And being on the floor is not going to be the future anyway. So, this is -- we started to see the light at the end of the tunnel. That was when I got the call from the guy that runs the fund that I was just at, also was the guy that recruited me at SIG, I went to college with him. And he reached out to me out of the blue in late 2011 and said, so we are ramping up a bunch and we don't -- we're out here punting on USO we don't really know commodities. I know you've been over there for seven years doing commodities now. Do you want to come and build that business?

And I remember I got the text message, my wife and I were -- my wife is from the Bay Area. We were going to visit her family in the Bay Area. And I got the text message before we got on the plane for Thanksgiving. And by the time we had -- and all it was, that's all it said. Would you be willing -- do you think you'd move to California and build this business? And you know, that was it, one text message. And by the time we landed in San Francisco and got into a cab to go to her sister's place, we get there and we're like, we're going to move to California. Like, I didn't even have a conversation with them. We're just like we're going to come home. And so that ended up being the ticket to come and do -- all this stuff that this young guy had built with us, this fund was going to throw real resources behind this, and let me build it.

I ended up trying to convince my partner to come. He had gotten into some really cool stuff, trading Brent crude -- Brent options versus Crude options. He was crushing life. I can't walk away from this. I said, man, you know this ain't the future. This is like -- this is going to run its course. He's like I know, but I got to do what I got to do, no problem. I managed to get him to join, I joined the fund, built it, built the infrastructure out. I mean, with the team, I guided the team that built the infrastructure out, started trading that stuff, got him to join three years later, he ended up joining the fund. And yeah, and we just did our -- we did the thing that we wanted to do that we envisioned in 2011. But it was all luck as far as, I just went from one market to the other, I got one membership here, a membership there. And then I just started to see it all. And then I said, you know what, there's more to this than just playing this little game. There's a giant dashboard heat map of the world, and do it all.

Transitioning

Mike: **01:01:19** And so now you make the transition from prop trading to OPM, right, Other People's Money. And so what was that transition like? We talked a little bit about it pre the call. So, that was a bit of fun. How did your mindset have to shift going from smashing phones in the pit to now having to talk to investors?

Kris: **01:01:41** Yeah. So, lots of fun stuff here. So, the first thing I would say is, it was jarring to me to go up to a desk, and it was very, very quiet compared to what it was. I mentioned this because it was extremely salient to me, it was very disturbing to me. Being on the floor, you can tell when things start to happen. Because there's a din, there's a noise, and you can feel it. You can absolutely feel when the market's starting to do weird stuff, you can hear certain pits start to get loud, and I didn't realize how tuned I was to that, until it was taken away from me. And then I'm off the floor and I'm like, I don't know what the hell's going on. I don't even -- I don't know how to -- I had a big problem of like, how do I direct my attention? It was, again, sounds ridiculous. But it's one of the things that really stood out to me in that transition. So, that was one.

The other thing is I had to improve my skills, because you need a little bit more self-reliance in that setting. So, I had to kind of up my skills a little bit, because I can't just keep asking for developer cycles on every last little thing I need. So, I needed to get at least better, and we're talking about Excel here, like getting really good at Excel, that kind of had to happen. And then the big thing was starting to appreciate that I cannot think like a market maker all the time. Like, I can't sell this thing just because I think it's a good -- because in two minutes, it's going to be a good trade. It's like I'm going to be -- I need to trade bigger. Yeah, I need to trade bigger and I need to hold -- I'm more inventorying and warehousing, than I am churning. This was really hard. It was very hard to switch that mindset. That basically sliding down the risk/reward scale. I'm now moving into a business where I'm trying to make like a 50% return on capital instead of a 200% return on capital. I mean, it's a completely different game.

So, that sort of adoption to kind of, I was more -- I was like getting less gun shy and getting more conviction in what I was doing. I had to think more about gauging liquidity became -- market makers always gauge liquidity. It's actually the job. The job ultimately is to gauge liquidity. It's like I'm going to sell you this because I think that I can cover 70% of the risk by going out and lifting all these related things and then I'm willing to just let the other 30% ride. And so a book edge, hold some risk, manage the residuals, that's the business. Here, I had to really, it was very difficult for me to do that. But after years, took years to get better and better at it, to where I was a better allocator of sort of capital and thinking in this much more opinionated way, you know.

Rodrigo: **01:05:10** You had to have a position, you had to have an opinion.

Kris: **01:05:13** I had to have a position, I had to have opinions. I really didn't have -- up until this point, I really didn't have opinions. I didn't -- Yeah.

Rodrigo: **01:05:22** Yeah, it's a crucial point, right, that I think people need to understand when they talk, when they hear you say how much money you were making in the pits, and you knew if there was money to be made because the spread was in a certain way you needed to take this position, you got that position, it was an arbitrage that you were able to lift. That is, that is a tangible, physical thing that you can -- that you know, as a trader, you can do. But when you start managing other people's money, you start getting into size, all of a sudden, you have to start taking positions, you can no longer -- you're not looking at pure arbitrage necessarily. There's too much money. So, I guess -- …

Adam: **01:06:00** What's the size difference?

Rodrigo: **01:06:01** What size shift from what you were doing independently to when you had to manage other people's money? Like, how many X more were you managing at that time?

Kris: **01:06:11** Let's see. I mean, I would think about it in terms of Greeks, oftentimes. So, like, how big of a vega I would carry. And you were, how many dollar deltas you're carrying a position? I mean, we're always going from a situation where if I was carrying $10 million deltas, that was a big deal to, that's a rounding error on what I was doing at the fund, right? So, it was -- and I would say this, if there was any -- one of the things that probably pushed against me was, I probably didn't take enough risk. I was actually fairly, I think my mentality is pretty well, was like, kind of well suited to being a market maker, in a sense. Probably didn't take enough risk, even probably not until the last few years, did I really start to butt up against the lines of what I thought were capacity constraints on some ideas. I was sort of always operating sort of well below what I thought capacity constraints, kind of was.

But the -- kind of, you could think about it in terms of theta, for example. When I was an independent, or independent trader, or whatever, if I had like a 40 or $50,000 a night theta bill that would be pretty big. That'd be really big. That was completely normal -- by the time I'm running a bigger book, it's like you'd -- four or 5X that as far as like, what a typical theta bill could be nightly. And that -- so, risk wise was a lot wider, it was a lot larger than it was, as sort of independent. And the other thing is, I kind of mentioned this before the call. Big reason I came to, like, Twitter helped me learn how to translate math, the things that I thought about as a trader. I remember, I mentioned before the call, my first time I went to an investor meeting I was speaking about things in terms of vigs, who were the donkey customers, getting picked off, who I'm picking off, like, I'm using this language? And it's like, there's somebody you know, there's like a consultant on the other side of the table and with an MBA.

And like they're looking at me and like, I think they were actually interested. I actually think speaking in these terms is kind of fresh to somebody that doesn't hear that all the time. But it's the questions you're getting you realize like they don't really know what you're talking about in a sense. So, they're not totally off-put by it, but they have to do all this like cognitive translation, right? And I came out of there, I said, damn, I got to learn how people talk. And you know alpha -- like nobody on the floor ever said the word alpha. So…

Adam: **01:09:24** Because it was all alpha, right, like the fish never talked about the water, right? Like, it's all right it's all alpha on the floor. You guys are not generating returns from the drift in the markets. It's all arbs.

Rodrigo: **01:09:38**

It's a business. Yeah. Well, my favorite was asking JP asking, I'm like what was your Sharpe ratio? And like what's Sharpe ratio -- on the -- my trade -- I don't know. Like I made five, 10 million a year or whatever. You know, like, whatever the number was. And I'm like, what, how much, on what base? I'm like what base, like, what do you mean by that? I'm like, well, how much AUM were you managing? Well, I don't think in those terms. Like maybe 100 million. How much would you make on that? What? It's just such a completely different mindset than OPM, raise money, have a base, and then when you have that much money, you now have to decide what you can actually do that you did in your old job, which is much, much less. And that's when you start looking at turtle traders and trend and seeing what alpha you can create. And there's no real sucker. Who's the sucker, who's the customer? Well, the customer is just human nature, right, on the trend side of things in a lot of ways.

Careers – The Second Half

Kris: **01:10:41**

All that learning, like learning everything, you just said, right there, that all happened in the second half of my career. My second half of the career was so different than the first half. But that's what helped me. Like, I kind of put everything together. Like, now I'm learning how this all works. And I learned this language, I appreciate this language. Before I thought it was academic or geek speak, or whatever. I appreciate this language now, and I learned all that, and then I was able to sort of combine it all. And I got better at being able to speak to people about it, and then understand how to turn what we were doing into a story that a proper investor can make sense of. And that ultimately, that's -- I think my writing is an attempt to sort of marry both of them, both those perspectives, because they're completely not exclusive of one another. It's all ultimately, really, really similar. It's just the language that you use for the vocabulary of it. And so trying to get more, trying to get more polished, and trying to be more proper was a big thing in the last nine years for me, like, kind of getting away from that old mindset, or old way of talking about things.

And then learning -- and then you start learning, you know, fact, -- the first time I heard about factors, I said, oh. The first time I ever heard about the -- anything similar to that idea of a factor was in speaking to a trader who was running stat arb kind of strategies. And said, I remember they said, this was probably more than a decade ago, and they said something to me, like with stat arb, every time you do stat arb, what ends up happening is, you find out later that you were exposed to something that you didn't model in the first hand. Like, oh, I'm actually just -- I'm doing all these trades. I think that I got all this edge. And then it turns out that everything that I'm long is like super levered, like their balance sheet is super levered. Like, there's some like factor that's going on under the hood. That's how I thought of factors first. And then when I started read on Twitter, oh, there's things called *value.* And there's things called *growth* and *momentum.* And these are called factors. And oh, okay, this is a whole -- wow, there's a whole other world out here of this stuff that I didn't know about.

Mike:	**01:13:11**	That you have to translate some of that nomenclature for yourself, I suppose. I mean, you must have been familiar with *momentum*, *mean reversion*, you just called it something else. I mean, you were like…
Kris:	**01:13:22**	I just called it *trend*. I mean, I didn't even -- yeah, I didn't use the word *momentum*. And again, it's like when we get into the -- when we talk about topics like that. I'm very unsophisticated, as far as my, even like, my ability -- like, what's the difference between *momentum* and *trend*? I don't know the nuances between them. It's like, what's the one that if the thing just went up -- if it's higher than the moving average, what's that? Or what's the thing that it's like, okay, it's went up this many percent, and then it's went up again, like, is that something different? I don't know exactly what the words for these different things are, but like the concept makes sense.
Rodrigo:	**01:13:58**	Yeah. And it's interesting how the way people perceive, you know, when you think about a prop trader, and somebody that creates a shop, and it's a business and they're spitting out money, based on these trades, and taking all these risks. Like you said, in the beginning, I don't know where these guys are actually investing their money, because investing is a different thing to the business. And when they go out and invest their money, they're actually looking around for this type of stuff, right? And they end up a lot of times, putting their hard earned money and a lot of it, if not most of their wealth, ends up going into traditional large AUM type strategies, right?
Kris:	**01:14:37**	Yeah, where's yours going to go?
Rodrigo:	**01:14:39**	You don't have -- you can't put that money back to work when you're bumping up against those limits. So, that was one point for me when I was like, oh, okay, so you make a lot of money here, because that's your business, but you're making the average money that everybody -- every one of us is making with your actual money at this point. And you're always trying to -- and that edge that you're trying to chase is the same edge that we're all trying to chase when it's OPM or large AUM type of dollars. Of course, they're always finding somebody to give -- some smart group of people to give money to, but it's very difficult too, right.
Kris:	**01:15:14**	Well, the thing, when I got that call about coming out to San Francisco to be with this fund, that was a big transition for that fund. That fund is like the -- probably the longest running vol fund in America, right, I believe. And that was started by a guy who is a world champ backgammon player in the 80s. And it was a broker dealer, it was structured, he was a prop shop, structured as a broker dealer, but they started taking outside capital, maybe in the 90s. But who was the capital? It was all his gambler buddies, it was just gambling buddies. And so people, even for the first 10 years of my career, talking about investing, most people were like, it wasn't like, what are you investing in? It's like, what are you backing? We're just, who's backing who? When I left SIG it's like…

Rodrigo:	**01:16:06**	Can I get a piece of him, right?
Mike:	**01:16:09**	This is like the poker room, man.
Rodrigo:	**01:16:11**	Exactly right.
Kris:	**01:16:12**	I got my start as an independent by a backer, but that backer had to give a piece of me to two guys that like found me, right, like so it was the guy standing next to me in the pit. And then the guy that was the biggest oil options market maker in the world at the time, I shared an office with, and he was my other first backer. Like we met on the floor and he convinced me to join that backer and part of the deal was like, they're going to -- the backer is going to back me, and they'll get like, 80 you know, whatever, 70% of me and these two other guys that found me they're going to get 15% of me each. And that was how the deal was structured. And that was it. Like, at the time it's just like who are you backing and like when you were in that ecosystem, like you could back other people and you could -- I used to train -- that big market maker had a big team, I had a team, I was like four people. You know, when I was there. He had 20, okay. Like, we shared an office, by the way, that's a whole other story. These guys wanted to get a, it was a crazy office, these guys wanted to get a penguin. They were like trying to figure out how to get a penguin, like for the office. It was like, yeah …
Rodrigo:	**01:17:38**	Can't wait for that movie to come out.
Kris:	**01:17:40**	Totally, totally weird world. And, but anyway, in that office, they were -- he had this army of young guys working for him. And so I would train them. I was like, I would run mock trading for them, I would do theory with them. Like I was the, you know, I would just kind of -- and it was just everyone just kind of like collaborated with each other. And these guys were here. He's like, hey, dude, I'll take your kids and I'll teach them two days a week. I'll teach them, I'll give them homework, I'll get them studied up, whatever. And the hopes was that they get it. Like, you get 10 guys, you hope one of them gets it, it clicks and they can play it -- they figure out how to play this game and then you get to back them. Like so that --
Rodrigo:	**01:18:26**	And of course, all the backing is like anything. It's risk, right? So, this idea that, oh, I'm going to back them. I'm guaranteed X amount of results. You can also get your brain blown off by backing the wrong guys and oftentimes it does happen, right? So, it continues to be that game of selecting the right players. If that market that they're good at doesn't stop working as you've mentioned a few times.
Kris:	**01:18:48**	I was going to say it goes back to what the business is, what Mike was saying, when you talk about this as a business. The business fundamentally at its core, even at the fund, number one is risk management. The whole thing is risk management. The whole thing is survive. I mean, you could open up -- you can

have 50 conversations about managing a large option portfolio, but that is, I feel, like at the end of the day that is the essence, the core of the whole business is how do you manage these giant option portfolios with all these line items? That is the job to be done, the differentiator, that's the whole thing. It's like everything is like risk management first. I mean, you have no business without edge but you have no -- if you cannot keep the edge you have -- nothing gets off the ground and so everything --

Mike: **01:19:44** Even edge without risk management is not edge, right? You have to edge and then you have to size it and then you have to worry about risk of ruin and you have to size it based on risk of ruin and all of that stuff. These are yin and yang, they're intertwined.

Kris: **01:19:59** Yeah. Totally, totally. I mean, I look at it all as -- it's interesting, my lens on investing is -- it's mostly, the whole game to me is seeing the -- like they use this expression, not in the trading world, I saw this from the -- maybe the VC world or something, but seeing the present clearly. And when I thought -- when I heard that I said, oh, that's what trading is. All trading is, is measuring and seeing the present, really clearly. It's taking the whole world almost like a cross sectional kind of way, a heat map, and just finding what sticks out. And then trading all the stuff that sticks out, creating a portfolio of that stuff. So, it's like, I'm going to look at all the liquid markets in the world. And I'm going to say I'm going to calibrate to them. Those are all fair. Everybody that's trading that stuff, like there's no edge in trading liquid markets. Like, I'm going to take all that stuff, assume that it's fair, and then what sticks out in the world, once I have calibrated to that.

And then once I have done that, I think that I've got this big pile of edge, how am I going to keep it? And that's the risk management and at the end of the day, like, that's how I see the business. And that's how -- It has nothing to do with predicting, in my mind, like, again, like I didn't -- like thematic investing or having opinions about the future or .... What is all that? How do you know any of that's true? It's like can never tell -- prove to me that any of that's right. Like, it's not to pick on like Cathy Wood. I don't, you know, like people …

Rodrigo: **01:21:30** What are you talking about? She's guaranteed 40% return next year on her fund.

Kris: **01:21:34** Yeah. The thing is I immediately dismiss her as (not advice) un-serious because it's not -- it has nothing to do with like, it's just because I know she's not risk management first, so I have to dismiss her. It's not anything else to me, but like she just has these visions of the future. And to me, I'll never grok that. You can't tell me anything about the future and I'm going to be like, yeah, that -- I mean, sure would I like, can I take a flier on something like that? And you know, that goes in the entertainment budget, right? Like, that's entertaining to me. But it's not serious in my mind, because it doesn't come from that framework. Again, completely biased.

Rodrigo: 01:22:16 There's not a global macro bone in ya.

Kris: 01:22:20 There isn't.

Mike: 01:22:25 Well, I'm interested, Adam, because I do want to segue into what we're seeing today, in the vast normalness that's abnormal, and what Kris is seeing. But if you want to go somewhere first, before that, I just want to get there eventually. If you want to go first …

Thoughts on Risk Management

Adam: 01:22:40 Yeah. Actually my question was going to kind of segue there anyways, which was about how did you think about risk management? And I'd love to hear details, if any standout. But how did you think about risk management that kept you alive when many others flamed out?

Kris: 01:23:02 Yeah. There are certain principles that I would adhere to as far as how to manage your book. Some of this, I think, is a bit -- a lot of it's context dependent. But let's take a sort of a broad one. A lot of people have rules about, and I don't want to lump *trend* into this, because it'll be obvious in a minute. For example, if you're managing an options portfolio, you do not want to have a risk rule that says if I lose this much money, get out. Because, first of all, conceptually, that makes no sense to me. Why would my rule of doing anything, be conditional upon the met my P&L memory? It makes no sense to me. So, the other reason why you don't want to have a rule like that is because that's when the opportunity is probably the best, is when the pain is kind of happening and happened. So, you don't want P&L memory as an input into the rule.

So, what do you do? You have to have your ex-ante rule beforehand has to constrain what is your losses that you can have. So, you might have a rule that says, and these kinds of things would come up in like your trading, you have an options portfolio, says you know what, if this stock -- if a stock in this portfolio goes BK, I cannot lose X dollars. It's not okay. So, I cannot have a position that could lose X dollars in a bankruptcy scenario. So, that is a constraint. I might say, okay. And I might have thresholds, there's thresholds beneath that, say, okay, I don't want -- I might have to reduce my position. If it gets to a point where I could lose X dollars, but if I lose Y dollars, I'm not even allowed to have that position. If I get into that territory, I have very, very strict rules about how quickly that position needs to get cut to get me below my cut offs. Okay.

So, in an options portfolio, that's a simple kind of a rule that says, I cannot ex-ante, have this kind of risk on not --I don't care how much edge you see in it, not allowed. You cannot -- I would think about things in terms of like constraining, not just your nets, it's your gross. I need to constraint -- my line item, how many options am I allowed to even have on a strike? I don't want to -- because what if that straight pins, and now I have a coin flip on my dollar delta on Monday morning, not allowed. Can't have a position that big on a strike.

Can't have -- I can't run long 10 million vega in one month, and short 10 million vega and another month and say, oh, look, I'm flat. No, I have to constrain my gross in every month. I have to constrain by name, by sector, by -- it's just this just like concentric orbits of constraints on everything that you are allowed to do.

Adam: 01:26:19 That sounds familiar.

Kris: 01:26:21 I mean, it's -- and then you have your Greeks are one thing, you might manage around your Greeks, but the thing about Greeks is that they're local. So, my Greeks will dictate how big things can be on sort of like a day to day basis. But I need to be able -- I need to shock my portfolio. If I shock my portfolio and I put in insane assumptions about what could happen, especially me, I was trading futures. On average, futures contracts are correlated with one another and the term structure, but not always. Sometimes they can go in opposite directions. And it makes sense that they would go in opposite directions, because we can have a squeeze today that can destroy demand tomorrow. In that dynamic means that these, it would be logical for these contracts to go in opposite directions.

So, if I'm using any kind of model that says, that acts as if this correlation is always positive, I have problems. So, I need to constrain against that. So, it's just this constant number of constraints that you are putting on your portfolio, and recognizing that the path -- like, the biggest shock has not happened yet. In everything that you trade, the biggest shock has not happened yet. So, that has to be built into the port -- that also has to be built into your risk.

And then with options, because you have all these different orders of stuff, you need to account for all that, as well. So, in a sense, I think that it's probably one of the great things about trading options is that it's probably the tip of this -- trading nonlinear products is probably the tip of the spear as far as risk management understanding. And I think the ideas that come out of the like arbitrage options world are filled with lessons for how to think about risk, that I think everybody can inherit. The context could be different, but the principles are worth studying. And survival is basically about ex-ante constraint. You know, that's how you survive all -- it's 2020. I mean, and honestly, the options -- well, a lot of them blew up. The options firms that look, the options firms that have market maker blood, by and large, did very well -- do very well in those situations, because they might get beat up --

Like the nature of being any kind of a market maker is that when the world changes, you take a hickey right away. But your risk management rules allow you to recover. And now you are standing in this amazing environment that you can make all the money back. And I remember from the floor, would walk in some days and the market will have done something nuts, and you start the day down and you're like in the hole you know three month's worth of work you're in the hole and you might make it back in the same day because that -- how bad it was, is like at some point that risk was constrained, and now you're standing there ready to make markets. And you have to toss it out. Like, I know. I took a big hickey today, three months of work out the window, but today we make hay.

Adam: **01:29:59** Yeah, and other guys are getting fully liquidated, right, … collecting that. And therefore, the spreads are massive, the *vegas* are huge, they're like the opportunities are massive. And you are still standing and able to profit from those opportunities.

Rodrigo: **01:30:14** Yeah, if I understand correctly, something that you haven't seen before happens, you get wiped out or something that is completely unexpected happens. Once it does happen, you're back in your own turf, you know exactly what's up. Right? So, the first shock is terrible, what the hell happened to us? After that, get your bearings. I understand the playing field, let's go make some money, and there's more spreads than ever to do it.

Kris: **01:30:41** I would say, related to this, as far as like, what it's like to trade this stuff, your mindset splits into different modes, and you have to know how to turn certain modes on and off. What I mean by that, when markets are kind of regular, I'm looking for good positions. I'm looking for, like I'm trading to target levels of risk. And like I said, I want to accumulate the -- I want to be long oil, I want to be long oil vol, I want to be short corn vol, I want to -- like I have an idea of like, these are the things that I want. I have access. However, when the world changes and we go into everything's in flux, and some kind of something has changed, that you might go out of that -- you go out of that mode and say market maker mode. Okay. No positions, no opinions. Today, I trade relatively flat.

By the end like I'm going to look at the end of the day how much *vega*, again, that's something I would always watch. How much *vega* did I buy today, how much *vega* did I sell today, and what months, how much *gamma*, how much *beta*? And every month, I want to know what did I do today? And in certain modes, if I accumulated a position in a fast market kind of condition, I'm usually sad. So, I know that I need to stay away from a position accumulation. So, what happens is, I buy, I think this is a good buy, starts to go against me. You know what? Make sure that the world changed. Like maybe the thing that -- maybe I bought this. And there's always a reason, everything that I buy or sell, there's a reason. I know exactly what the reason is. I bought this, because this is bid here. Right? Like I sold this, because this is offered here. Like everything that I trade, I know exactly why I did it. And if I sold this here, and then this thing that I was offered here, goes up to here. And this goes up here, I buy this back. I hate my trade now because this thing's now here.

So, I want to buy this back, I have no problem locking in a loser. I have no problem as long as the reason for that trade has been refuted by the market. I might even go and say the other way. Now I want to -- I sold this thing now I want to buy it. Because I don't want to buy this thing and sell this thing that I thought before was causing me to sell it. Now that thing's high, and I want to sell that. So, I will completely flip my position, say, because I know what I'm trading against. And everything has a reason. I don't do a trade on an opinion. It's like the trader on a desk comes to you. Why did you do this? Why did you do that? There better be a list of reasons. I said this was offered here, this was bid there. I'm seeing this flow here. That guy is going to -- like, I need to know the reasons. Everything I do. This is what's hard for me for investing is because I don't understand the reasons that well. Or I understand the reasons for trading. But I don't understand the, you know, macros. I really don't understand the reason I don't think I understand any of that. So, yeah, different…

Adam: **01:33:56** Mike -- Yeah, different contexts for sure. Mike sorry, you go you had …

Where We Are Today

Mike: **01:34:01** Yeah, I just thought -- I want to make sure we get to the point of where we are today. So, we've tracked a long way. We went from 2000 to 2022. We're sitting here today. You're now stepped away from the industry sort of for a bit. With all your skill and experience, what are you seeing today in that you know that latticework that you were talking about, that mosaic of hey, these markets are normal, these are non-normal; how's that shifted in the last six months? It certainly feels like there has been a significant shift in regime of some kind. But I'm wondering, and I think the audience is wondering too, what are you seeing, what are you seeing in the vol markets, what are you seeing in different pits as it were today versus six months ago, versus the last three years?

Kris: **01:34:46** Yeah. So, I think it's going to be a disappointing answer, because my answer is going to be, this is a trading environment and I would not be taking positions. I want exposure to people that benefit from dislocations, from disorder. I want to be exposed to people that think like traders right now, not people that have opinions. That's how I feel today. For people that are sitting in seats where they can trade things that are going this way and that way, this is an unbelievable environment, I don't know. And again, like maybe you guys can tell me like, what kind of things can one buy? What are the exposures that one could have that benefit from that like, other than, like, buying maybe virtue stock or something like that, but it's like, that's the idea is like, I would want exposure to people that are in a sense, like, we have, in our personal money portfolio, whatever, like, we allocate to --

My wife is in this business too on the investing side. And we allocate with private managers, I mean, that's, it's like, people that kind of, that we think can make money in environments like this, not all of it. Honestly, some of this is probably, like veiled *beta*, ultimately. Like, it's kind of hard to get away from that. Right? But it's just understanding that right now, I don't know anything about what's going on, things feel really crazy to me. The real estate markets feel incredibly wild, to me. Like, I live in the Bay Area, I see things here that are, I mean, sometimes I'm just scratching my head, I'm like how much money is out there? Like, it feels infinite in some ways. And it's not -- When you talk to realtors and you talk to -- it's like, it's kind of freakish as far as like, I've never seen anything like this. COVID seems to have like blown something open. I think just like all you guys, like you guys see the world crazy. I don't have any special insight into this. I just know that, you know, honestly, if I was trading, it's probably an amazing environment, especially because I was in commodities.

Mike: **01:37:14** We're Canadians so we have no San Francisco real estate market for sure.

Rodrigo: **01:37:20** … run the rolling -- what was it, the diversification ratio or something like that was the amount of unique bets that one can examine from the futures markets, right? So, you can actually find a way to see roughly how many unique bets there are. And I think back to the 1990s, but the highest peaks were in the 2000s, in the mid-2000s, right. These were periods where there was high inflation, right, a prolonged multi-year bear markets, and things were breaking. There was chaos in the streets, there was wars, there was a bunch of things that just we've forgotten as investors, just the proverbial we, have forgotten as investors, could happen. During that decade, you had a massive amount of dispersion, and therefore opportunities to make money on longs and shorts and the like. And so you look at the decade of 2000 and 2010, and what you identify is that index investing wasn't really that big a thing. You had Magellan Fund, you had in Canada, Eric Sprott making active equity selection, all the active equity managers were killing it. All the CTAs were making double digit returns, 20-30%, annualized you had -- Warren Buffett had an amazing decade right after that, the tech crash.

And so when there's dispersion, as you said, when there's chaos, and there are people that are active managers trying to find those opportunities, it's a great time to be in that space. And then in the last decade, when you have benign inflation, and persistent positive growth shocks, when there's a lot of visibility, and there's like the fog of war has kind of gone away. Then you see the big winners, right? You see the FANGs and everybody's just going to plow a bunch of money into those stocks. Growth stocks tend to do really, really well, right before the chaos ensues. So, I just think, from your perspective, you're seeing it as a trader, that I want somebody to take no position, I want somebody that can manage dispersion, you're totally right. But that goes down the, in my opinion, down the active ladder, from equity selection, to sector rotation, to asset allocation, to CTAs, and systematic little macro guys like us, we're seeing more opportunities than we've ever seen. And you saw it going back to the original chart that I asked Adam. you saw a lot of peaks in 2000 with a lot of bets, and then the last 10 years, kind of -- it's whittled down to very, very few bets, really tough to make money. And all of a sudden that's gone -- that's spiked up.

Adam: **01:39:49** That's why it's interesting too, is that you know, during calm markets, there are more opportunities for dispersion within equity markets, and within credit markets. But during times like these, stock picking actually is, there's less

		dispersion because as you know, right, better than most, you've got correlations that are moving towards one within the equity markets, but across different markets, the correlations are breaking, right? So, and there'll come a point where there's going to be a major liquidation event, and everything's going to go down together, like we do see, from time to time that lasts a few, a few days, or maybe a week or so. Right? But yeah, at the moment, your intuition I think is great, right? You want active trading, you want lots of diversity in the things that you can trade because a variety of things are breaking at different times. And so there's a large opportunity set for nimble traders across these global markets.
Kris:	**01:40:52**	Yeah, it's I think, it's like I want agnostics to have the money right now.
Mike:	**01:41:01**	Yeah. With access to all the markets, right, without a leaning or preference, right. There's lots of stuff going on. There's lots of vol out there, there's lots of different directions it's going, you don't need to lug any position.
Rodrigo:	**01:41:15**	I've been waiting 10 years to say that Vanguard, this is a time where Vanguard gives some of that -- those winnings back but they're an active manager too now. They're putting out all these factor-based ETFs. And goddammit, they're timing this right. But yeah, that passive index, like this idea that passive investing the way Americans see it, which is the S&P 500, it's going to be a rough go.
Mike:	**01:41:39**	But it's the same ebb and flow we saw. Kris came in the market 2000, I came in like 1990, Japan was the rage. You know, once something becomes broadly adopted as gospel across all the zeitgeist of the general investing pop, it's not going to work.
Rodrigo:	**01:42:03**	For me it was BRIC, the BRIC funds, right? Brazil, Russia, India, China, the commodity super-cycle, right? Peak oil. Remember that?
Mike:	**01:42:11**	Oh, yeah. Peak oil. Peak Energy and -- I mean, the thing is 2000, right. You have a market peak in 2000. And then you look how what the dispersion was, what did other markets do? What did emerging markets do? What did gold do? I mean, … massive outperformance. And I think by the way, if you go back to 2000, gold still outperforms the S&P 500 at this moment in time, but you know, whatever, no one cares. But then you fast forward to 2011, gold has its peak, its momentary peak, and you know, stocks are flat on their back in the next 10 years. What happens? Well, the opposite. Seem to move in these 10-year or decade-like cycles, where things get unsettled for a while. Anyway. It's interesting. It's a very interesting place.
Rodrigo:	**01:42:57**	Going to be a fun decade.
Mike:	**01:42:59**	Yeah, rising rates haven't been a thing for a long time. Interest rates actually go up? Is that a thing? Can that even happen?

Kris:	**01:43:10**	Because they kind of timed quitting badly, but you know.
Mike:	**01:43:12**	Yeah, maybe.
Kris:	**01:43:15**	Yeah, I'm pretty certain I timed it badly.
Rodrigo:	**01:43:16**	Come on over. Come on over.
Mike:	**01:43:18**	When do you think you're making the comeback, bro? When are you going to be like oh, I got too much free time now?
Kris:	**01:43:25**	Yeah. No, I have a couple itches to scratch. I don't, I'm just kind of interested in leaving --it's kind of weird, man. When I got into this business, like I didn't -- I had, like I said, I was really naive, I didn't really know much. So, coming into it, it was like, this just seemed like a pretty cool thing to do. You know, when I got into it, I was walking around -- like, I was interested in money and investing to some degree. Like, in college, I was an economics major, which is -- it was a worthless, effing major, but at least the way I studied it.
Adam:	**01:44:05**	Me too.
Kris:	**01:44:06**	And I was interested in the idea of things like derivatives. And I actually was interested even in college. But the way I got the job was I literally walking around a career fair and SIG has a booth – it was at Cornell. So, I'm walking around their career fair, and there was a guy named Pat at SIG, and he did recruiting there and he had a booth and there was no attention being paid to this booth. Everybody -- you remember, like 1999, everybody wanted to be a banker. That was like, but you know, that was a hot shit. So, everybody was wearing suits at the career fair and everybody wanted to go to be a banker. And there's this guy, he's standing there at his booth and he's got a deck of cards and dice. And he's just looking for somebody to talk to. And I'm walking by completely clueless, and, oh, yeah, what the heck is this about? What's the name of that company? Susquehanna? What the heck is a Susquehanna? And he, I don't remember what he asked me. But he asked me like, some kind of question related to a probability kind of thing, whatever. And I'm like, I didn't get it right. And I was like, that's kind of cool. That was kind of a neat question. I thought that was interesting. And he said, well, why don't you come have a conversation? You know? Okay, and I went there. And I sat down and had this interview, and he asked me more questions like that, and I got them all wrong. But here's the thing --
Mike:	**01:45:47**	Blank piece of paper.
Kris:	**01:45:48**	To this day, I think, probably, maybe the most fortuitous sentence I ever said, happened in that interview, because I said to him, this is really cool. How could I get better at this? That was it. And he said, go read. I want you to go read David Sklansky's *Getting the Best of It*. And I wrote it down. I said, I'm going

to get that book and I walked out of that conversation. I went and I got the book. And he specifically told me, the first chapter, read the first chapter. I read the first chapter, and that book is, *Getting the Best of It*, is basically a treatise on the idea of edge in gambling. That's it, that's what the book is about. I read the whole book, and then they did on campus interviews later. He called me he said, you can you know, come interview, okay. I went there and I interviewed. And I struggled, but I was interested and I had demonstrated that I had read the book. So, I walk out of there and I have no idea and lo and behold, and like I said they were hiring bodies and they needed people. So, I get the call and I got a second -- I got a phone interview, more math questions. These I nailed. I get all the math.

Rodrigo: **01:47:11** What was your background and undergrad?

Kris: **01:47:13** Econ. I haven't taken a math class since high school. That's like Calculus BC. I haven't taken a math class since high school. I am completely ignorant of I'm just trying to learn …

Rodrigo: **01:47:26** It wasn't econometrics. It was econ.

Kris: **01:47:29** No, it was econ. It was like a lot of blue booklets and that was pretty -- that was like, I mean, like, verbal scores in life were very high. So, I was good at bullshitting through college. And I would take all these classes where you would have to basically write stuff. And my classmates or friends, whatever, like, in college, they would be like, can you write this for me? Like, I would -- so, I felt pretty comfortable bullshitting, which is totally bullshit. There's no research, just making stuff up. But I would make stuff up and I was able to get good grades doing that. But then this stuff was like, man, I haven't really thought about math stuff since high school. And then, so I learned that and then eventually, like, then I got the questions right, and I got better. And then I managed to get the job. And that was it. But it was all pretty much because I feel like I said, I don't know how to do this, but I like it. Could you tell me how to get better at it?

Mike: **01:48:39** Can only connect the dots looking backwards.

Kris: **01:48:44** Yeah. That's right. It's so true.

Mike: **01:48:48** Yeah. That's amazing. Well, we take it up in almost two hours of your time. And I think we've …

Adam: **01:48:53** That's a good place to end it too. That's a good lesson to end on for sure.

Kris: **01:48:57** Yeah, I appreciate you guys having me on. This is cool and you made me feel really comfortable because I never really did stuff like this before. So, this was pretty dope, man.

Adam:	**01:49:06**	Yeah. You said you were nervous. You didn't seem nervous the entire time, mate. So, this has been a lot of fun. And thanks so much for sharing too, a lot of wisdom.
Rodrigo:	**01:49:13**	Very entertaining stories. Very insightful. I can't wait -- We'll have you back again. I know everybody was waiting to talk about vol. We didn't …
Adam:	**01:49:23**	Next time.
Mike:	**01:49:25**	And where can everybody find you, Kris? Just at the end here, remind them of all your places where you exist, your blog, your newsletter, Twitter, all that stuff?
Kris:	**01:49:32**	Yeah. So, I mean, you could follow me, I'm @KrisAbdelmessih. And everything – I have a portal where everything I've ever written on the internet is there; all my options writing, all that stuff, it's all indexed. And then I write a weekly *Moontower* newsletter that sometimes talks about finance and sometimes just me riffing about whatever. But you get like …
Adam:	**01:49:55**	Oh, it's exceptional. I love it when you off-road.
Kris:	**01:49:58**	What's that?
Adam:	**0:49:59**	I said it's exceptional and I really love it when you off-road.
Kris:	**01:50:02**	Oh, I appreciate that. Thank you very much. It's just -- I'm trying to figure things out in public, I find that that's a pretty good way of living my life these days. So, but my Twitter has links to everything. So, that's probably the best place, just go there.
Rodrigo:	**01:50:16**	Excellent.
Mike:	**01:50:16**	That's awesome.
Adam:	**01:50:17**	That's fantastic. I just also want to mention that next week Meb Faber is allegedly going to be on the show. So, if he's not surfing, he may or may not be here. And on May 6, we've got Vincent Dillard talking about the inflationary environment, how to navigate that. So, some more really good shows coming up. So, tune in, make sure to Like and Share so we get more guests like Kris, on the show. And Kris, thanks so much, man. Really fun. Hopefully, we get to raise a glass in person sometime in the near future. And thanks to everyone who showed up today and commented and asked questions, and we hope you show up in the future.
Rodrigo:	**01:50:59**	Thanks all.
Kris:	**01:51:00**	Thank you guys very much. Have a good weekend.

Mike:	**01:51:02**	Queue the tune.
Adam:	**01:51:03**	You too. See ya.